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Acquisition de compétences

Aboodi, R. (2025). **The Worrisome Potential of Outsourcing Critical Thinking to Artificial Intelligence**. *Educational Theory*, *75*(4), 626-645. https://doi.org/10.1111/edth.70037
As Artificial Intelligence (AI) keeps advancing, Generation Alpha and future generations are more likely to cope with situations that call for critical thinking by turning to AI and relying on its guidance without sufficient critical thinking. I defend this worry and argue that it calls for educational reforms that would be designed mainly to (a) motivate students to think critically about AI applications and the justifiability of their deployment, as well as (b) cultivate the skills, knowledge, and dispositions that will help them do so. Furthermore, I argue that these educational aims will remain important in the distant future no matter how far AI advances, even merely on outcome-based grounds (i.e., without appealing to the final value of autonomy, or authenticity, or understanding, etc.; or to any educational ideal that dictates the cultivation of critical thinking regardless of its instrumental value). For any "artificial consultant" that might emerge in the future, even with a perfect track record, it is highly improbable that we could ever justifiably rule out or assign negligible probability to the scenario that (a) it will mislead us in certain high-stakes situations, and/or that (b) human critical thinking could help reach better conclusions and prevent significantly bad outcomes.

Al-Rousan, A. H., Ayasrah, M. N., Khasawneh, M. A. S., Obeidat, L. M., & Obeidat, S. S. (2025). **AI-Enhanced Gamification in Education: Developing and Validating a Scale for Measuring Engagement and Motivation Among Secondary School Students: Insights From the Network Analysis Perspective**. *European Journal of Education*, *60*(3), e70153. https://doi.org/10.1111/ejed.70153
This study aimed to develop and validate the Gamified AI Learning Engagement and Motivation Scale (GALEMS) to assess secondary school students' motivation and engagement within AI-enhanced gamified learning environments in Jordan. The research employed a sequential exploratory mixed methods design grounded in Self-Determination Theory and Flow Theory. In the qualitative phase, semi-structured interviews with 20 experts led to the identification of six key dimensions: Motivational Resonance, Learning Flow Experience, AI-Driven Social Dynamics, Cognitive Immersion, Reflective Metacognition and Learning Self-Efficacy. An initial 47-item scale was constructed and refined through expert validation. In the quantitative phase, 640 secondary students participated, with the sample split into two groups (n = 320 each) for Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). EFA revealed a six-factor structure explaining 52.3% of the total variance, and CFA confirmed good model fit (CFI = 0.940, RMSEA = 0.067, SRMR = 0.039). The final scale included 33 items, all with factor loadings > 0.40. Internal consistency was confirmed (Cronbach's α and McDonald's ω > 0.70), and test–retest reliability over 2 weeks yielded high correlations (e.g., GALEMS total score r = 0.92, p < 0.001). Multi-group invariance testing demonstrated measurement consistency across gender (ΔCFI < 0.004). Exploratory Graph Analysis (EGA) with 1000 bootstrap samples confirmed the stability of the six-dimensional structure in 99.8% of iterations. GALEMS provides a culturally grounded, psychometrically sound tool for evaluating motivation and engagement in AI-based gamified learning environments.

Alshammari, A. E., Ahmed, H. M. S., Al-Bukhrani, M. A., Thomran, M., Grada, M., Khojally, H. M. A., & Al-Gobaei, F. (2025). **The interplay of internship education, IT skills, and**

graduates' employability in saudi arabia: experiential learning theory lens. *Quality & Quantity*, *59*(4), 3513-3543. https://doi.org/10.1007/s11135-025-02120-y
This study investigates the effects of internship education programs on graduates' employability in Saudi Arabian higher education institutions, focusing on the mediating role of students' IT skills. A quantitative approach using partial least squares structural equation modeling (PLS-SEM) was employed to analyze data from 325 graduate students across four Saudi Arabian universities. The findings revealed that students' IT skills significantly affected their employability. Organizational resources, program design and structure, and program relevance positively affect students' IT skills, which fully mediates the relationship between these internship program aspects and graduates' employability. Surprisingly, internship duration, intensity, mentorship, and supervision did not directly influence IT skills or employability. These results emphasize the importance of well-designed, industry-relevant internship programs that prioritize IT skill development to enhance graduates' employability. This study contributes to the literature on internship education and employability in Saudi Arabian higher education by providing empirical support for experiential learning theory in the context of IT skill acquisition through internships. It also offers insights into how internships can support the Saudi Vision 2030 objectives. This study highlights the need for collaboration among higher education institutions, policymakers, and industry stakeholders to optimize internship programs. Limitations include the cross-sectional nature of the data and the focus on specific internship aspects and IT skills. Future research could employ longitudinal designs and explore a broader range of skills and program components.

Alzubi, A. A. F., Nazim, M., & Alyami, N. (2025). **Do AI-generative tools kill or nurture creativity in EFL teaching and learning?** *Education and Information Technologies*, *30*(11), 15147-15184. https://doi.org/10.1007/s10639-025-13409-8
AI-generative tools, such as ChatGPT, are argued to hold the potential to contribute to creative thinking in education broadly and second language education specifically. Nonetheless, existing literature underscores a critical requirement to elucidate the specific nature of this contribution among English as a Foreign Language (EFL) undergraduates utilizing ChatGPT. Therefore, the study aims to explore students' perspectives on how AI can contribute to creativity in an EFL learning context. The descriptive-survey method was used to achieve this objective. A convenient sample of (546) students responded to a perceptually closed-item questionnaire on how AI-generative tools contribute to creativity in the EFL context from university students' points of view. Also, a purposive sample sat for an online semi-structured interview to elicit information on the best practices to utilizing generative AI in nurturing creativity in learning English. The study revealed that ChatGPT uniquely contributes to enhancing creativity in EFL education. Students recognized the potential of these tools for conversation practice, idea generation, feedback on writing, vocabulary building, and collaborative learning. However, concerns were raised about over-reliance on AI, critical thinking, accuracy, and intellectual property. Differences in students' perceptions based on gender, specialization, and academic year were also noted, indicating varying levels of comfort and engagement with AI tools. This research demonstrates how AI can be strategically integrated to foster creativity while addressing critical challenges such as the balance between human and AI-generated input, the need for training on ethical AI use, and the importance of mitigating biases in AI-generated content. The findings suggest that promoting responsible and creative use of AI in EFL education—through comprehensive training, continuous monitoring, and collaboration among educators—

can enhance learning outcomes, support innovation, and uphold academic integrity. This study offers new insights into how AI tools can effectively enrich the EFL learning experience while ensuring students remain active, critical participants in their learning process.

Araki, S. (2025). **Cross-national variation in the skills trap: illuminating the heterogeneous economic returns to high cognitive skills**. *European Sociological Review*, *41*(3), 343-362. https://doi.org/10.1093/esr/jcae048
Research argues possessing high skills is crucial for economic success. While such arguments are often evidenced by the average skills effect, we know little about its heterogeneity. From a comparative perspective, this article examines the heterogeneous effects of cognitive skills on earnings using the standardized dataset for Britain, the Czech Republic, France, Korea, Norway, and the United States. Propensity score (PS) matching analysis first shows skills generally contribute to higher earnings. However, the effect size varies across PS strata, including the negative selection trend with low-PS groups (i.e. individuals who are least likely to acquire high skills) gaining more from such traits (Norway); U-shaped patterns with mid-PS being penalized (Britain and USA); homogeneous effects (Czech Republic); and their mixtures (France and Korea). Subpopulation PS models further reveal these heterogeneities comprise unequal returns across gender and parental education in a way that either intensifies or mitigates existing social inequalities. The results suggest (i) the 'skills trap' operates in structurally devaluing high skills among certain groups of people whilst rewarding others; and (ii) this trap works variously across societies in accordance with their socio-economic and educational systems. Methodologically, these findings also underscore the importance of investigating effect heterogeneity across both composite PS and its components.

Aryani, A. T. D., & Rosyid, A. (2025). **Online learning engagement and operational accounting competencies: the moderating role of digital literacy**. *Education and Information Technologies*, *30*(13), 18277-18299. https://doi.org/10.1007/s10639-025-13517-5
The abrupt and swift transition to online remote learning due to COVID-19 left numerous Indonesian universities in a state of disarray, owing to the challenge of adapting to remote teaching and learning with only some or minimal prior experience. This is because many universities in Indonesia are traditional institutions that typically conduct their learning activities in-person, on a physical campus. This study aims to empirically determine the effects of student engagement in online learning and digital literacy on operational accounting competencies. Additionally, it seeks to determine whether digital literacy could act as a moderating variable, enhancing or diminishing the impact of student engagement in online learning on operational accounting competencies for fifth and seventh-semester Accounting Sharia students at Universitas Islam Negeri (UIN) KH Abdurrahman Wahid Pekalongan, Indonesia. Guided by Situated Learning Theory, this research highlights the role of authentic, contextual learning environments in developing competencies. The study generates survey data using a pre-designed questionnaire completed by 113 students. Data are analyzed using descriptive analyses and PLS-SEM (Partial Least Square-Structural Equation Modelling). It can be concluded that digital literacy and student engagement have a significantly positive effect on operational accounting competencies. However, the results indicate that digital literacy does not strengthen or lessen the relationship between student engagement in online learning and operational accounting competencies. These findings underscore the

importance of Situated Learning Theory in emphasizing practical experience, collaboration, and participation in real-world accounting activities, which are crucial components of effective learning in operational accounting.

Ateş, H., & Polat, M. (2025). **Leveraging augmented reality and gamification for enhanced self-regulation in science education**. *Education and Information Technologies*, *30*(12), 17079-17110. https://doi.org/10.1007/s10639-025-13481-0
This study investigates the efficacy of integrating augmented reality (AR)-based gamification with self-regulated learning (SRL) strategies to enhance middle school students' academic performance, engagement, satisfaction, and self-efficacy in science education. Employing immersive AR technologies alongside gamification elements, this approach is designed to cultivate an engaging and learner-centered environment that promotes essential SRL competencies including goal-setting, self-monitoring, and reflective thinking. Utilizing an experimental research design, the study engaged 60 middle school students who were allocated into two groups: one experiencing self-regulated AR-based gamification and the other experiencing traditional AR-based gamification without self-regulation components. The findings reveal that students in the self-regulated AR-based gamification group demonstrated significantly enhanced levels of academic achievement, engagement, self-efficacy, and overall satisfaction compared to their peers in the traditional group. These outcomes suggest that the strategic integration of AR-based gamification with SRL strategies not only fosters significant improvements in educational performance but also enriches the learning experience, thereby providing critical insights for the development of innovative educational technologies that support comprehensive understanding and foster student autonomy in science education.

Avanesian, G., & Rozhkova, K. (2025). **The effect of non-cognitive skills on academic performance: does it vary by socio-economic status?** *International Journal of Educational Research*, *133*, 102680. https://doi.org/10.1016/j.ijer.2025.102680
Academic achievement at school as a crucial determinant of further educational attainment is largely affected by family socio-economic status (SES). Non-cognitive skills may, at least partly, mediate this effect and serve as a promising aim for educational policy in leveling educational inequality. Based on OECD Survey for Social and Emotional Skills (OECD SSES), this paper uses a mixed-effects modeling approach to explore the relationship between non-cognitive skills, SES, and academic achievement for schoolchildren from 8 cities in 7 countries. The results suggest that non-cognitive skills significantly reduce the effect of SES on achievement, although it depends on the differences in country-level socio-economic and cultural context. Task performance and open-mindedness are the most influential non-cognitive skills related to achievement, with the effect being most pronounced among low-SES children. Significant non-linear effects are also observed for collaboration. Overall, our models reveal that while individual student differences account for most of the variance in academic performance, there is a non-trivial proportion of variance explained by non-cognitive skills, particularly among high achievers. This underlines the potential of targeted interventions aimed at developing these skills to foster academic excellence, especially within socio-economically diverse urban environments.

Azeem, S., & Abbas, M. (2025). **Personality correlates of academic use of generative artificial intelligence and its outcomes: does fairness matter?** *Education and Information Technologies*, *30*(13), 18131-18155. https://doi.org/10.1007/s10639-025-13489-6
The study examined the association of big five personality traits (i.e., conscientiousness, openness to experience, and neuroticism) with use of Generative Artificial Intelligence (GenAI) among university students. It also examined the moderating role of perceived fairness in grading on the relationships of personality traits with GenAI usage. Further, the study examined the relationship of GenAI use with academic self-efficacy, learned helplessness, and academic performance. Finally, it explored the mediating role of GenAI use in the relationships of openness to experience, conscientiousness, and neuroticism with students' outcomes. Data were collected using a three-wave time-lagged online survey from a sample of 326 students enrolled in three Pakistani universities. Established scales from prior studies were used to measure all study variables and academic performance was measured through students' CGPA. Findings indicate that conscientiousness is negatively related to GenAI use. Findings also indicate that academic use of GenAI negatively relates to students' academic self-efficacy, and academic performance, and positively relates to learned helplessness. In addition, the study identifies some role of perceived fairness in grading although the effect was modest. Furthermore, use of GenAI mediated the effects of conscientiousness on academic outcomes. Finally, the theoretical and practical implications suggest that universities may take prompt action to regulate GenAI use, alongside concerted efforts to balance the potential benefits and repercussions of its use among students.

Barkati, M., Kiyanfar, Z., Azari Noughabi, M., & Ershadi, F. (2025). **Contributions of self-efficacy, L2 grit and digital literacy to informal digital learning of English: A structural equation modelling approach**. *British Journal of Educational Technology*, *56*(5), 2183-2201. https://doi.org/10.1111/bjet.13547
Despite the proliferation of studies on computer-assisted language learning, scant research attention has been paid to informal digital learning of English (IDLE) and its antecedents. Therefore, the current study aimed to investigate whether Iranian EFL learners' L2 grit, digital literacy and self-efficacy contributed to their IDLE. A total of 313 EFL learners (96 males, 217 females), selected through snowball sampling, completed an electronic survey. Structural equation modelling (SEM) was employed to analyse the relationships between the main variables. The results of SEM analysis revealed that EFL learners' digital literacy, L2 grit and self-efficacy significantly influenced their engagement with IDLE activities. In addition, the findings revealed that digital literacy was the strongest predictor of EFL learners' IDLE. These findings highlight the significance of digital literacy skills coupled with positive personality-based and cognitive variables in forming learners' tendency to learning English in informal digital settings. The study implied that positive characteristics could enhance cognitive and psychological resources, leading to positive outcomes (ie, IDLE). Finally, implications were offered. Practitioner notes What is already known about this topic Gritty language learners with high self-efficacy are more likely to master language skills inside and outside the classroom. Digital literacy can increase learners' tendency to learn English through digital platforms. What this paper adds Digitally literate EFL learners with high levels of grit and self-efficacy practise IDLE activities. Digital literacy plays a more important role in IDLE compared to personality-related and cognitive factors. Implications for practice EFL teachers are recommended to model using digital platforms for language learning in

out-of-class digital settings. EFL teachers can increase EFL learners' grit and self-efficacy through interventions to enhance their engagement in IDLE-embedded activities.

Başgül, M., & Coştu, B. (2025). **The effect of Education 4.0 tools on 7th grade students' learning outcomes and attitudes in the electrical circuits unit**. *Education and Information Technologies*, *30*(11), 15645-15689. https://doi.org/10.1007/s10639-025-13404-z
Education 4.0 represents a visionary approach to the future of education, aiming to enhance teaching and learning through advanced technologies. The aim of this research is to determine student attitudes toward the use of Education 4.0 tools in the 7th-grade Science course Electrical Circuits unit. To achieve this, an attitude test was developed to evaluate the integration of Education 4.0 tools into the Science curriculum, and student attitudes were assessed using this test. A « quasi-experimental design with pre-test and post-test control group, » one of the quantitative research methods, was used in the study. The research involved 41 seventh-grade students from one public secondary schools in Turkey, with 21 students in the experimental group and 20 in the control group. The « Attitude Scale toward the Use of Education 4.0 Tools in Science Teaching, » developed by the researchers, was used as the data collection instrument. The experimental phase lasted four weeks (16 lesson hours), during which the experimental group engaged in activities involving Education 4.0 tools, while the control group followed the curriculum-prescribed activities. The t-test results of the collected data revealed a statistically significant difference between the post-test scores of the experimental and control groups, with the experimental group showing more favorable outcomes. The research findings reveal that students exhibit a positive attitude toward the use of Education 4.0 tools in science education. These results suggest that the integration of Education 4.0 into science education enhances students' understanding of abstract electrical concepts such as electric current, potential difference, resistance, and Ohm's Law, improves knowledge retention, and transforms the learning process into an interactive and discovery-oriented experience. Furthermore, Education 4.0 tools have contributed to the improvement of learning outcomes by promoting student engagement and make learning processes more efficient by improving students' ability to use technology effectively.

Bauer, E., Richters, C., Pickal, A. J., Klippert, M., Sailer, M., & Stadler, M. (2025). **Effects of AI-generated adaptive feedback on statistical skills and interest in statistics: A field experiment in higher education**. *British Journal of Educational Technology*, *56*(5), 1735-1757. https://doi.org/10.1111/bjet.13609
This study explores whether AI-generated adaptive feedback or static feedback is favourable for student interest and performance outcomes in learning statistics in a digital learning environment. Previous studies have favoured adaptive feedback over static feedback for skill acquisition, however, without investigating the outcome of students' subject-specific interest. This study randomly assigned 90 educational sciences students to four conditions in a 2 × 2 Solomon four-group design, with one factor feedback type (adaptive vs. static) and, controlling for pretest sensitisation, another factor pretest participation (yes vs. no). Using a large language model, the adaptive feedback provided feedback messages tailored to students' responses for several tasks on reporting statistical results according to APA style, while static feedback offered a standardised expert solution. There was no evidence of pretest sensitisation and no significant effect of the feedback type on task performance. However, a significant medium-sized effect of feedback type on interest was found, with lower interest

observed in the adaptive condition than in the static condition. In highly structured learning tasks, AI-generated adaptive feedback, compared with static feedback, may be non-essential for learners' performance enhancement and less favourable for learners' interest, potentially due to its impact on learners' perceived autonomy and competence.

Baumeister, F., Hanushek, E. A., & Woessmann, L. (2025). ***Out-of-School Learning: Subtitling vs. Dubbing and the Acquisition of Foreign-Language Skills*** (Working paper N° 17991). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp17991
The development of English-language skills, a near necessity in today's global economy, is heavily influenced by historical national decisions about whether to subtitle or dub TV content. While prior studies of language acquisition have focused on schools, we show the overwhelming influence of out-of-school learning. We identify the causal effect of subtitling in a difference-in-differences specification that compares English to math skills in European countries that do and do not use subtitles. We find a large positive effect of subtitling on English-language skills of over one standard deviation. The effect is robust to accounting for linguistic similarity, economic incentives to learn English, and cultural protectiveness. Consistent with oral TV transmission, the effect is larger for listening and speaking skills than for reading.

Baumeister, F., Hanushek, E. A., Woessmann, L., & Baumeister, C. (2025). ***Out-of-School Learning: Subtitling vs. Dubbing and the Acquisition of Foreign-Language Skills*** (Working paper N° 11981). Consulté à l'adresse CESifo website: https://EconPapers.repec.org/RePEc:ces:ceswps:_11981
The development of English-language skills, a near necessity in today's global economy, is heavily influenced by historical national decisions about whether to subtitle or dub TV content. While prior studies of language acquisition have focused on schools, we show the overwhelming influence of out-of-school learning. We identify the causal effect of subtitling in a difference-in-differences specification that compares English to math skills in European countries that do and do not use subtitles. We find a large positive effect of subtitling on English-language skills of over one standard deviation. The effect is robust to accounting for linguistic similarity, economic incentives to learn English, and cultural protectiveness. Consistent with oral TV transmission, the effect is larger for listening and speaking skills than for reading.

Blank, T. H., & Wilner, S. (2025). **Can training programmes change behaviour? Age, creative behaviour, and active learning**. *International Journal of Inclusive Education*, 29(10), 1726-1748. https://doi.org/10.1080/13603116.2023.2291530
Earlier studies provide mixed results regarding the influence of training programme on behavioural change. We draw on the transfer of training theory to explain behavioural change of 45 early childhood teachers, refugees living in the Dzaleka Refugee camp in Malawi, who attended a training programme. Our results indicate that age, creative behaviour, and their interactive effect have a positive influence on behavioural change. Interestingly, active learning by itself had no significant influence on behavioural change. When considering the interactive effect of age and active learning, we found a positive influence on behavioural change.

Borremans, L. F. N., & Spilt, J. L. (2025). **Committing to all students: Examining teacher competence in relationships with disruptive students**. *International Journal of Educational Research*, *133*, 102676. https://doi.org/10.1016/j.ijer.2025.102676
High-quality teacher-student relationships are crucial for the well-being of both students and teachers. Disruptive students are typically at risk for developing conflictual relationships with their teachers, yet researchers hypothesize that competent teachers can successfully cultivate close relationships even in the face of challenging student behavior. Research on teacher self-efficacy has recently yielded new insights, yet little is known about the specific relationship-building competence dispositions that help foster positive relationships, particularly with disruptive students. This study, first, aimed to further validate the COMMIT-questionnaire which assesses teachers' relationship-building competence dispositions in dyadic interactions. Second, this study aimed to explore the role of teachers' relationship-building competence dispositions in the relation between disruptive student behavior and teacher-student relationship quality. The COMMIT was administered in a sample of 526 teacher-student dyads. Findings supported validity of the COMMIT and highlighted the significance of teachers' relationship-building competence dispositions in establishing high-quality relationships, particularly with disruptive students. Specifically, teachers' attitude and self-efficacy in building closeness and coping with conflict were linked to closer and less conflictual relationships with all students. Teachers' knowledge and self-efficacy in reflective functioning additionally contributed to high-quality relationships for disruptive students. While further research is required to resolve inconsistencies and replicate recent findings, the present study improved our understanding of the teacher competence dispositions that contribute to establishing positive teacher-student relationships, even when that is challenging.

Brossette, B., Vernet, M., Prugnières, C., Chalbos, M.-J., Ziegler, J. C., & Ducrot, S. (2025). ***Print Exposure and Reading Development in the French Educational Context: A Systematic Review***. Consulté à l'adresse https://hal.science/hal-05201947
This systematic review examines the impact of print exposure on reading development within the French education system and its implications for international research. Motivated by France's declining performance in international reading assessments, the review synthesizes evidence on how different forms of print exposure-ranging from home literacy environments to educational interventions-contribute to literacy outcomes. It critically evaluates print exposure measures, ranging from self-reports to print exposure checklists, and considers their predictive validity and conceptual clarity. Consistent with international findings, the review confirms that print exposure, and more broadly the home literacy environment, supports literacy development. However, its role appears more limited in France compared to other OECD countries. This may be attributed to the strong effects of socioeconomic factors on students' performance, particularly pronounced in France, and the centralized educational system, where literacy instruction is primarily school-driven, potentially reducing parental involvement. Building on these insights, we propose an integrative framework to refine the conceptualization of print exposure by distinguishing it from related constructs. Specifically, we suggest separating direct measures of print exposure from distal indicators like the number of books at home, which often overlap with socioeconomic variables. We also advocate for the inclusion of other potentially relevant variables, such as play experiences and oral parent-child interactions. To improve parsimony and robustness, we propose that future research adopt a nested incremental approach to identify a minimal set of variables that maximize both predictive power and reliability.

Cadei, L. (2025). **Le Service-Learning en Italie ou apprendre en s'engageant au service de son environnement**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wd
En Italie, le Service-Learning intègre l'engagement communautaire à l'apprentissage, favorisant le développement de compétences sociales, citoyennes et disciplinaires. Cette approche permet aux élèves et étudiants de répondre aux besoins réels de leurs environnements, tout en appliquant leurs connaissances théoriques. Service-Learning promeut une réflexion critique, une participation active et un engagement solidaire, transformant les élèves et étudiants en citoyens responsables et conscients des enjeux sociaux. Loin d'une simple activité bénévole, le Service-Learning crée des ponts entre la classe et l'environnement, tout en développant des compétences essentielles pour un avenir durable.

Cao, J., & Luo, H. (2025). **Combining virtual reality and EEG biofeedback for enhanced EFL learning: a sociocultural approach**. *Education and Information Technologies*, *30*(11), 15299-15328. https://doi.org/10.1007/s10639-025-13348-4
This study investigated the effectiveness of a Virtual Reality (VR) intervention with integrated Electroencephalography (EEG) biofeedback (VR-EEG) in enhancing English as a Foreign Language (EFL) learner proficiency compared to a traditional classroom setting. Learners (N = 60) were randomly assigned to either the VR-EEG group or the traditional classroom group. Both groups received 60 h of EFL instruction over four weeks. The VR-EEG group participated in VR learning environments with real-time adjustments based on their EEG data, while the traditional classroom group received conventional EFL instruction. Pre-test and post-test assessments evaluated EFL proficiency in vocabulary knowledge, grammar accuracy, speaking fluency, and learner engagement. The results revealed that the VR-EEG group demonstrated a statistically significant improvement in overall EFL proficiency, particularly in vocabulary acquisition, compared to the traditional classroom group. Additionally, the VR-EEG group reported higher levels of engagement. EEG data analysis for the VR-EEG group provided preliminary insights into the neural correlates associated with performance and engagement within the VR environment, specifically examining how alpha and beta wave activity relate to attention and cognitive processing during language learning tasks. This analysis explored the potential of EEG biofeedback to optimize learning by dynamically adjusting task difficulty and providing personalized support within the learner's Zone of Proximal Development. These findings suggest that VR-EEG technology has promising potential as a method for enhancing EFL learner proficiency and warrants further investigation.

Ceballos, H., van den Bogaart, T., Spandaw, J., van Ginkel, S., & Drijvers, P. (2025). **Collaborative problem solving to foster higher-order thinking skills in mathematics: A systematic literature review**. *TWG01: Argumentation and Proof*, *TWG01: Argumentation and Proof*(26). Consulté à l'adresse https://hal.science/hal-05161269
Collaborative problem solving in mathematics lessons may promote higher-order thinking skills (HOTS). However, clear design guidelines for these activities are lacking (Han et al., 2021). Through a systematic literature review, we aimed to identify optimal features for peer group mathematical problem solving such as task selection, ideal group size, and effective group work procedures that can effectively foster HOTS. The research question

is: What are the key design features of CPS tasks that promote HOTS and how do communication challenges impact their effectiveness?

Chellappa, V. (2025). **Exploring students' intention to use a mobile application for learning construction ergonomics**. *Education and Information Technologies*, *30*(12), 16805-16833. https://doi.org/10.1007/s10639-025-13453-4
Construction ergonomics is crucial for developing strategies to prevent workplace injuries and enhance worker well-being. However, this critical topic is often overlooked or inadequately addressed in civil engineering education programs. To bridge this knowledge gap, a mobile application (app) was developed to facilitate learning about construction ergonomics for civil engineering students. This study investigates factors influencing civil engineering students' intention to use a mobile learning platform for construction ergonomics. Building upon the Technology Acceptance Model (TAM), which emphasizes perceived usefulness and ease of use, the researchers incorporated additional variables—perceived app quality, perceived enjoyment, and information quality—to provide a more comprehensive understanding of technology adoption in this context. Data were collected from 107 students at an affiliated institute of Anna University Chennai. The results showed that nine out of the ten proposed hypotheses were supported. Findings indicate that students perceive the app's information as useful, develop a positive attitude toward it, and are inclined to use it. This study contributes to ergonomics theory by providing a theoretical foundation for applying mobile apps in construction ergonomics education. The findings also have implications for practical innovation and the wider adoption of mobile learning in civil engineering education.

Chen, C.-C., & Tsai, Y.-H. (2025). **Effect of interactive e-book use on learning engagement, satisfaction and perceived learning**. *Education and Information Technologies*, *30*(11), 15757-15789. https://doi.org/10.1007/s10639-025-13415-w
With the rapid advancement of digital learning technologies, interactive e-books have emerged as a pivotal tool in technology-enhanced education, particularly for promoting active learning. However, existing research on learning engagement has inadequately addressed the integrated effects of emotional, behavioral, and cognitive dimensions on learning achievement. To address this gap, the present study investigates the impact of interactive e-book materials, designed in alignment with the GAFCCC strategy framework (Goals, Access, Feedback, Challenges, Collaboration), on various learning metrics, including learning achievement, engagement, satisfaction, and perceived learning. A comparative analysis was conducted with lecturer-centered narrative teaching to evaluate the differences between the two approaches. The findings demonstrate that the use of interactive e-books significantly enhances students' academic performance, engagement, satisfaction, and perceived learning outcomes. Further analysis reveals that the emotional, behavioral, and cognitive dimensions of engagement exhibit moderate to strong correlations with cognitive learning outcomes and satisfaction levels. Among these dimensions, emotional engagement is identified as the most influential factor affecting satisfaction, while cognitive engagement is the primary driver of perceived learning. Moreover, in comparison to lecturer-centered teaching, students expressed a marked preference for learning through interactive e-books, citing greater interest, sustained attention, and heightened classroom engagement. However, the research is limited by its exclusive focus on the emotional, cognitive, and behavioral dimensions of engagement, potentially overlooking other significant factors influencing learning outcomes.

Chen, X., Jia, B., Peng, X., Zhao, H., Yao, J., Wang, Z., & Zhu, S. (2025). **Effects of ChatGPT and argument map(AM)-supported online argumentation on college students' critical thinking skills and perceptions**. *Education and Information Technologies*, *30*(12), 17623-17658. https://doi.org/10.1007/s10639-025-13471-2
Although online argumentation provides students with sufficient time to think, they often lack a clear argument structure and timely guidance during the process. This may negatively affect students' abilities to support or rebut arguments and to develop their critical thinking skills. In this study, 64 sophomores were evenly assigned to either a control or an experimental group. Each group was further divided into four teams, with each team comprising both a pro and a con side; the former needed to argue for a given position and the latter against that position. Using the collaborative online platform "ShiMo," the control group engaged in textual argumentation, whereas the experimental group conducted their argumentation by drawing argument maps (AMs). Furthermore, students could also seek assistance from ChatGPT 3.5 when encountering difficulties in creating AMs. Both questionnaires and content analysis were used to evaluate students' critical thinking skills and perceptions. The findings indicated that ChatGPT and AM-supported online argumentation effectively promoted students' critical thinking skills, encouraging them to engage in more rebuttal activities through analysis, evaluation, and creation. Students perceived that AMs clearly visualized argument structure, albeit providing limited assistance in facilitating information gathering. ChatGPT provided detailed information and fostered a positive attitude toward argumentation among students; however, the accuracy and appropriateness of the provided information remained doubtful. These findings have several implications. College students' critical thinking skills can be improved by integrating teacher guidance into ChatGPT and AM-supported online argumentation, being skeptical of ChatGPT's outputs, and improving information literacy to efficiently utilize ChatGPT.

Chesné, J.-F., & Créton, J. (2025). **Conférence de consensus du Cnesco. Nouveaux savoirs et nouvelles compétences des jeunes : Quelle construction dans et hors de l'école ? Notes des experts**. In *Nouveaux savoirs et nouvelles compétences des jeunes : Quelle construction dans et hors l'école ?* Consulté à l'adresse https://hal.science/hal-05150700

Choi, S., & Min, I. (2025). **The impact of cognitive and non-cognitive skills on occupational outcomes: Evidence from Indonesia**. *International Journal of Educational Research*, *133*, 102669. https://doi.org/10.1016/j.ijer.2025.102669
This study examines the educational and labor market outcomes of Indonesia's vocational education system, analyzing how different educational pathways and personality traits influence employment prospects. Using data from the Indonesian Family Life Survey, we investigate the returns to various educational levels, particularly comparing vocational and general education, while considering the role of non-cognitive skills measured through the Big Five personality traits. The findings indicate that vocational education significantly enhances employment prospects and wages in urban areas, highlighting the importance of technical and practical skills development. Among non-cognitive skills, conscientiousness emerges as the most crucial factor for both employment and wages, while emotional stability positively affects wage levels. We further find that neglecting these non-cognitive skills can overstate the significance of education in determining labor market outcomes. The study reveals important implications for educational policy, particularly in curriculum design, teaching

methodologies, and the alignment of vocational education with labor market needs. The results suggest that strengthening the integration of technical skills training with personality development in educational programs could enhance employment outcomes in developing economies.

Chou, C.-M., Shen, T.-C., & Shen, T.-C. (2025). **Using structural equations to explore the impact of university students' technology acceptance on AR-supported learning effectiveness: mediation variable of self-regulation**. *Education and Information Technologies*, *30*(12), 16771-16804. https://doi.org/10.1007/s10639-025-13469-w
AR-supported instruction has been verified to improve students' problem-solving skills. This study investigated 1041 university students and developed an empirical research model that combined technology acceptance, self-regulation, and AR-supported learning effectiveness with the structural equation model (SEM). At the same time, content analysis was used to understand students' feedback and reflections on their AR learning experience, and a total of 677 feedbacks were received. This research found that technology acceptance and self-regulation are significantly and positively related to augmented AR-supported learning effectiveness. First, students' perceived enjoyment and perceived innovation are the most important factors for technology acceptance, among which perceived innovation significantly impacts teachers' understanding of students' learning outcomes. Secondly, the interpersonal influence of self-regulation significantly impacts students, and it can be seen that friends' opinions are the source of information. Third, students' cognitive strategies of self-regulation will affect students' AR-supported learning. The influence pattern and empirical data of the technology acceptance, and self-regulation on AR-supported learning effectiveness exhibited a good fit. Finally, through the content analysis of students' feedback on AR learning experience, it can be seen that students are interested in AR's ability to provide diverse and immersive learning experiences, AR visual interactivity, personalized learning and motivation, but AR learning challenges also have their limitations. Inspire teachers to build learner-centered environments and stimulate students' motivation to learn through AR.

Chou-Lee, M., & Tran, L. T. (2025). **Domestic Students' Engagement in Internationalisation at Home: Devoloping Intercultural, Ethical, Personal, Social, Critical and Creative Thinking Capabilities in Australian Secondary Schools**. *European Journal of Education*, *60*(3), e70171. https://doi.org/10.1111/ejed.70171
This article explores domestic students' engagement in internationalisation, based on data collected from individual and focus group interviews as part of a longitudinal study across four secondary schools in Victoria, Australia. While the four capabilities, intercultural, ethical, personal and social, and critical and creative thinking, are integral to internationalising teaching and learning practices, little research has explored this connection in the context of domestic students' engagement with internationalisation in the school sector. This article addresses this critical gap in the literature. Using intersectionality as a theoretical framework to interpret domestic students' perspectives, this article focuses on the criterion of intercultural capability as delineated in the Victorian Foundation to Year 10 (F-10) curriculum and identifies areas of overlap with the other capabilities (ethical, personal and social, critical and creative) present in the Australian national curriculum. Recognising the interrelatedness of capabilities is essential, as key skills often emerge at their intersections. These skills include the ability to recognise, accept, and negotiate differences and form better connections while interacting interculturally. The study found that although students engage in extensive discussions

about worldwide issues, their critical thinking and literacy skills remain under-developed. Additionally, barriers created by various structural and disciplinary power relationships in schools add to divisions between domestic and international students, preventing them from interacting in more meaningful ways. Based on the findings, the article discusses implications for fostering these interrelated capabilities and supporting innovative internationalisation in teaching and learning practices in secondary schools.

Ciff, T., Korpershoek, H., & van der Werf, G. (2025). **The effects of the YCDI! mentoring program on secondary and higher education students' social-emotional skills**. *International Journal of Educational Research*, *133*, 102700. https://doi.org/10.1016/j.ijer.2025.102700
In this article, the outcomes of two studies on the effects of the You Can Do It (YCDI!) Mentoring Program on the social-emotional skills of students in secondary and higher professional education students are presented. The YCDI! Mentoring Program focuses on increasing students' five key skills (the 5Keys), being the level of confidence, persistence, organisation, getting along and emotional resilience (Bernard, 2005). Both studies used a pretest–posttest control group design. In the first study, 144 secondary school students participated in the experiment, and in the second study, a total of 62 students in higher professional education participated. In both studies, the number of students was equally divided across the experimental and the control group. Questionnaires, covering the five key skills of the Mentoring Program, were administered to measure the self-reported level of students' social-emotional skills at pre- and posttest. The results of the first study revealed that the YCDI! Mentoring Program had no significant effect on the social-emotional skills of secondary school students. However, the effect of the Mentoring Program on the social-emotional skills of the students in higher professional education was significant and substantial. Limitations and implications for theory and practice are discussed.

Claro, M., & Castro-Grau, C. (2025). **Developing teacher digital competencies in the age of AI. Chile case study**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vo
Since the 1990s, Chile has prioritized digital technologies in education, but the rise of AI presents new challenges for educators. The Observatory of Digital Educational Practices (OPED) at Universidad Católica de Chile has developed a training model with four dimensions – Personal and Social Development, Digital Learning and Creation, Digital Disciplinary Skills, and Active Digital Methodologies – to prepare future teachers for a digital society. OPED is also designing new curriculum modules to foster critical engagement with AI and align with international trends and institutional policies, and analysing their ability to enhance or redefine teaching practices. The paper highlights that intentional design, ethical considerations, and institutional support are essential for leveraging AI's potential in education.

Dahman, Z., & Douieb, M. M. (2025). **Transformation digitale et développement des compétences dans l'enseignement supérieur**. *International Journal of Accounting, Finance, Auditing, Management and Economics*. Consulté à l'adresse https://hal.science/hal-05205573
The digitalization of higher education represents far more than mere technological integration; it entails a profound redefinition of pedagogical methods and teaching practices. This digital transformation hinges on a critical re-evaluation of traditional

approaches, essential for adapting to the individual needs of learners and the dynamics of an ever-evolving global landscape. The ultimate goal is to build an educational system that is more resilient, flexible, and relevant in the face of contemporary challenges. The advent of the digital university paves the way for the globalization of educational processes and methods. Thanks to advanced technological systems such as LMS (Learning Management System), LXP (Learning Experience Platform), and more recently artificial intelligence (AI), it has become possible to personalize and adapt learning pathways. This personalization makes learning inherently more flexible and accessible, better aligning with learners' professional aspirations, distinct learning styles, and individual paces. Many countries have already embraced and implemented ambitious national strategies for the digitalization of their higher education, recognizing its transformative potential. This study offers a comparative analysis of Digital Learning initiatives in various leading countries. We will thoroughly examine the strategies and achievements of nations like Finland, renowned for its educational excellence; South Korea, a pioneer in technological integration; India, with its scalable challenges and innovative solutions; and Rwanda, an inspiring example of digital transformation in a developing context. This exploration will shed light on the inherent challenges and opportunities associated with this major transition. In parallel, we will position Morocco within this global landscape, detailing its own initiatives, notably Maroc Digital 2020 and the Code 212 project. These efforts illustrate the kingdom's clear commitment to modernizing its educational system and making it compliant with 21st-century requirements. In conclusion, this study will highlight the best practices observed internationally and formulate concrete recommendations for a sustainable and effective digitalization of higher education.

Dan, Q., Yin, H., & Bai, B. (2025). **Three paradigms of inquiry into self-regulated learning (SRL): a critical analysis and ways to transformative and integrated practices**. *Asia Pacific Education Review*, *26*(3), 749-761. https://doi.org/10.1007/s12564-025-10035-4
This paper aims to review and conceptualize how researchers with different human interests understand and approach self-regulated learning (SRL) for their specific purposes. In this narrative literature review, three paradigms of inquiry into SRL guided by Habermas's three human interests (i.e., technical interests, practical interests, and critical/emancipatory interests) are presented in an interpretive way. It was found that, with various human interests, researchers' definitions of SRL, the understandings of the roles of students and social contexts, inquiry interests and intentions, and the methodologies adopted vary. By incorporating Habermas's three human interests into SRL inquiries, this article offers a comprehensive and critical narrative review of the three paradigms in SRL. Discussions about the extension of the established paradigm and the alternative approaches to SRL, emancipatory transformative practices, and the strengths and weaknesses of the three paradigms and their integrated application provide insights and implications for SRL research and practices.

Di Lisio, G., Halty, A., Berástegui, A., Milá Roa, A., & Couso Losada, A. (2025). **The longitudinal associations between teacher-student relationships and school outcomes in typical and vulnerable student populations: a systematic review**. *Social Psychology of Education*, *28*(1), 144. https://doi.org/10.1007/s11218-025-10107-8
This systematic review examines the teacher-student relationship (TSR) from an attachment perspective and explores its impact on academic (dis)engagement, (under)achievement and Early School Leaving (ESL) over time. It addresses two

objectives: (1) examining the longitudinal influence of TSR on academic outcomes and (2) assessing its effect on vulnerable student populations, including those facing Social Vulnerabilities (e.g., students from ethnic minorities, migrant backgrounds, or living in low socioeconomic conditions), Special Needs (e.g., disabilities or learning difficulties), and Mental Health issues. Additionally, the review considers how individual characteristics such as gender may shape the quality and impact of TSRs. A total of 37 longitudinal studies from ERIC, Academic Search Complete, Scopus and Web of Science were analyzed, using the PRISMA guidelines to ensure transparency and replicability. The results revealed significant associations between the quality of TSR and academic (dis)engagement over time, with smaller effects on academic (under)achievement. Mixed results were found regarding gender. Students from low socioeconomic status, minority backgrounds, and those with mental health challenges experienced poorer TSR, which in turn led to poorer academic outcomes in the long run. For Special Needs students, positive TSRs supported behavioral engagement and academic achievement, while poor relationships were linked to increased conflict and risk of disengagement. The review underscores the importance of supportive and responsive teacher-student interaction in fostering a conducive learning environment over time, especially for vulnerable students. Additionally, it suggests that enhancing TSR quality can act as a protective factor against disengagement and underachievement, thereby reducing the risk of ESL. These findings highlight the need for targeted interventions to improve TSRs, particularly for students at higher risk of educational exclusion. Overall, the study provides a comprehensive understanding of how TSRs influence various academic outcomes over time, offering valuable recommendations for educators and policymakers to support vulnerable student populations.

Do, L. A., & Thomas, A. K. (2025). **In-Person Collaboration, but Not Virtual, Enhances Problem-Solving Efficiency and Knowledge Transfer from Groups to Individuals**. *Mind, Brain, and Education*, *19*(3), 130-139. https://doi.org/10.1111/mbe.70008
Although research demonstrates benefits of collaboration in problem-solving, less is known about how different formats impact learning and cognitive engagement. This study compared in-person and virtual collaboration to individual problem-solving by measuring performance and cognitive engagement, using heart rate variability (HRV). Participants worked on three symbol-substitution problems. They tackled problems 1 and 3 individually. For problem 2, they worked either independently, collaboratively in person, or collaboratively on Zoom in groups of three. Results showed that participants who collaborated in person completed problem 2 in fewer trials, demonstrating greater efficiency. This benefit extended to later individual problem-solving on problem 3. Virtual collaboration, however, did not provide the same advantages. Both in-person and Zoom groups exhibited greater increases in HRV than individual problem-solvers, indicating reduced cognitive demands during group work. Our findings suggest that both formats affected cognitive engagement, but only in-person collaboration enhanced efficiency and supported learning transfer to individual tasks.

Domingues, A. R., Yakar-Pritchard, G., Mazhar, M. U., Siena, F. L., & Bull, R. (2025). **The Impact of Project-Based Learning on Student Knowledge Exchange for Sustainability: The Case for University–Business Collaborations**. *Higher Education Quarterly*, *79*(3), e70029. https://doi.org/10.1111/hequ.70029
Knowledge exchange in higher education is an emerging area delivered in multiple ways, including university–business collaboration, combining academic knowledge and

business needs. Knowledge exchange can act as a vehicle for embedding sustainability in the curriculum and help address significant challenges we face as a society. Student knowledge exchange is driven by students who work on real-world projects, often with businesses involved. There is a need to assess the impact of knowledge exchange on students to inform curriculum design and development for a better student experience and outcomes. This research aimed to better understand the impact of university–business collaboration on student knowledge exchange for sustainability by adopting project-based learning pedagogy. The study draws lessons from the School of Architecture, Design and the Built Environment and Nottingham Business School at Nottingham Trent University. The study found that project-based learning significantly impacts students' sustainability knowledge and competencies. Besides knowledge and competencies, students who work with businesses also gain sustainability skills, attitudes, and behaviours. The design and implementation of project-based learning affect the outcomes, including activities integrated into the curriculum versus extracurricular activities, bespoke versus ad hoc student projects and the duration of students' exposure to sustainability-related topics. This study contributes to higher education teaching and learning and impacts students' capacity building, affective domain and career readiness. Project-based learning can enhance student knowledge exchange for sustainability, particularly when collaborating with businesses, impacting students and businesses.

Dubreuil, D. (2025). **Le lycée pilote innovant international en France (LP2I) : quand innovation, inclusion et compétences de vie transforment l'apprentissage**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wo
Le lycée pilote innovant international (LP2I) se distingue par une pédagogie valorisant l'autonomie, la collaboration et le bien-être. Son projet éducatif repose sur une démarche transformative, intégrant les compétences psychosociales, l'innovation numérique et une ouverture à l'international. Son ambition est de former des jeunes capables de relever les défis contemporains et d'imaginer des solutions inédites pour répondre aux transformations futures.

Duru-Bellat, M. (2025, août 25). **Médiocre et en baisse, ce que révèle notre niveau en maths**. Consulté 29 août 2025, à l'adresse Alternatives Economiques website: https://www.alternatives-economiques.fr/marie-duru-bellat/mediocre-baisse-revele-niveau-maths/00115844
Dans une note publiée en juin 2025, le Haut-Commissariat à la stratégie et au plan (HCSP) revient de manière détaillée sur le constat récurrent de la médiocrité des élèves français, à l'aune des comparaisons internationales, tout spécialement en mathématiques et en sciences. Avec dès le titre, la question : faut-il s'inquiéter ?

Farran, E. K., Gilligan-Lee, K. A., Mareschal, D., Živković, M., Bartušēvica, S., Bell, D., … Gilmore, C. (2025). **Teacher Delivered Block Construction Training Improves Children's Mathematics Performance**. *Mind, Brain, and Education*, *19*(3), 118-129. https://doi.org/10.1111/mbe.70006
There is robust evidence for a causal association between spatial thinking and mathematics achievement. However, most research has been lab-based, with spatial training delivered by researchers. We present a teacher delivered, whole-class 6-week spatial training study that involved professional development for practitioners coupled with teacher-led LEGO® block construction training for 6- to 7-year-olds. Using a quasi-

experimental design, N = 409 children completed the training and N = 103 children formed a business-as-usual control group. For spatial ability and mathematics, but not spatial language, children in the training condition showed improved performance relative to controls. This finding extends evidence of the positive effects of spatial training to an ecologically valid, classroom-based, practitioner-delivered context. The findings suggest that classroom opportunities to engage in block building using pictorial instruction are an effective activity for mathematics improvement. Our findings have implications for school curricula where spatial thinking is largely absent; a spatialized mathematics curriculum could raise children's mathematics attainment.

Farran, L. K., Brasher, S. N., Nelson, J., & Stapel-Wax, J. L. (2025). **Talk with Me Baby: Early Language Knowledge Across Disciplines**. *Mind, Brain, and Education*, *19*(3), 155-167. https://doi.org/10.1111/mbe.70007
Early childhood language-promoting initiatives, such as Talk with Me Baby (TWMB), are positively associated with young children's development across multiple domains and contexts. Less is known about the potential impact of TWMB in a rural setting that focuses on training preservice students who serve families from culturally and linguistically diverse backgrounds. This study uses the practical robust implementation and sustainability model (PRISM) to identify facilitators and barriers to implementation in an interdisciplinary academic context at a public university in a rural geographic area in the United States. The sample includes 43 preservice students across three disciplines (speech–language pathology, early childhood education, and special education), who participated in TWMB online training modules, pre and postsurvey, and flipped classroom training followed by focus group interviews. Results reveal an overwhelming support for TWMB with high perceived reach, effectiveness, adoption, implementation, and maintenance, bolstering the need for interdisciplinary training to maximize equity in language input to underserved populations.

Genkova, P., & Schreiber, H. (2025). **Intercultural Competence—A Matter of Social Skills in the Educational Context?** *European Journal of Education*, *60*(3), e70150. https://doi.org/10.1111/ejed.70150
Educational institutions in Europe strive to equip students with the skills necessary for successful participation in diverse social and professional environments, particularly those characterised by cultural heterogeneity. However, social and intercultural competence are often treated as distinct constructs, overlooking potential interdependencies and the ways in which one may inform the other. This study thus examines the relationship between social competence, intercultural competence, social identity and attitudes towards outgroups in an educational context. Using a cross-sectional design, we analysed survey data from German university students and school pupils (N = 544). The results indicate that older participants demonstrated higher average scores of social and intercultural competence, while participants of universities and universities of applied sciences differed only in reflexibility, but no other dimension of social competence. Moreover, social competence, European identity and attitudes towards foreigners are positively related to intercultural competence. Contrary to our expectations, national identity showed no significant association. The study contributes to the understanding of the dynamics between social and intercultural competence, as well as identity in an educational context.

Grönqvist, E., Öckert, B., & Rosenqvist, O. (2025). **Does the « Boost for Mathematics » Boost Mathematics? A Large-Scale Evaluation of the « Lesson Study »Methodology on Student Performance**. *American Economic Journal: Economic Policy*, *17*(3), 345-372. https://doi.org/10.1257/pol.20220009
Does the « Boost for Mathematics » Boost Mathematics? A Large-Scale Evaluation of the « Lesson Study » Methodology on Student Performance by Erik Grönqvist, Björn Öckert and Olof Rosenqvist. Published in volume 17, issue 3, pages 345-72 of American Economic Journal: Economic Policy, August 2025, Abst...

Hadizadeh, A., & Kanık, M. (2025). **Undergraduate Students' Conceptions of Academic Writing at the Intersection of English Medium Instruction and the Digital Age**. *European Journal of Education*, *60*(3), e70162. https://doi.org/10.1111/ejed.70162
This qualitative study explores the perceptions and conceptions of academic writing among 14 ELT students in an English medium instruction (EMI) context at an international university in Northern Cyprus, an under-researched setting. The study revealed that participants faced a variety of challenges and employed strategic approaches that created learning opportunities in their academic writing practices. The findings indicated that students encountered task-internal challenges (e.g., language proficiency and planning difficulties) and task-external constraints (e.g., time pressures and reliance on online resources). Emotional responses, such as self-doubt, particularly regarding academic integrity, were also common. Despite these challenges, students used strategies like independent research, peer support and language tools to overcome difficulties. The study emphasises the importance of positive instructor feedback and the motivational role of digital tools. The findings suggest that combining in-class writing instruction with digital tools outside the classroom can enhance academic writing while maintaining academic integrity and authenticity.

Haelermans, C., & Baumann, S. (2025). **The Netherlands: Comprehension of Basic Skills and Covid-19**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 105-119). https://doi.org/10.1007/978-3-031-69284-0_8
The PIRLS and PISA results that were published in 2023 severely shook things up in the Netherlands and reinforced the need for sustainable educational policy improvements. In this chapter, we show examples of how educational interventions are accompanied by structural monitoring based on national assessment data on school performance for mathematics and reading comprehension for pupils in primary schools in the Netherlands. From the analyses it becomes clear that both the national data as well as the international comparisons done by PIRLS and PISA show worrisome downwards trends in pupils' performance. The international comparisons show a larger decrease than the national data, for which there are many possible reasons, such as different age groups and types of tests. However, the overall picture from all sources shows that there is still a lot of progress to be made in the Netherlands.

Haider, N., & Habiba, U. (2025). **From Query to Knowledge: Evaluating University Students' Online Searching Proficiency and Its Connection to Critical Thinking and Research Skills**. *European Journal of Education*, *60*(3), e70144. https://doi.org/10.1111/ejed.70144
In today's digital age, efficiency in navigating, interpreting, and using internet-based content is Crucial for academic achievement. This study evaluates university students' web search abilities and how they connect to their research and critical thinking

capabilities. It also looks at the ways in which critical thinking and online search competency mediate each other. This research utilised a quantitative research design, collecting data from respondents through a Google Forms survey. Participation in the online survey consisted of 365 students, including 193 females and 172 males, which was distributed via email. The findings of testing hypotheses using partial least squares structural equation modelling (PLS-SEM) revealed that critical thinking skills were significant ($p = 0.003$), although internet search proficiency had an insignificant influence ($p = 0.538$). Differences in search proficiency also impacted students' critical thinking, research, and internet search skills. The study also discovered that these skills were adversely affected by barriers to search proficiency. Furthermore, there were substantial direct correlations between the mediating effects of critical thinking and the ability to perform effective online searches. This study contributes noteworthy implications for improving students' digital literacy via a novel analytical approach, the interplay between search competence, critical thinking, and research skills. Through examining the interrelationship among these core competencies, this investigation reveals opportunities to apply targeted instructional approaches that can encourage more strategic and effective digital information-gathering and strengthen students' overall academic performance.

Han, I. (2025). **Development of self-directed learning readiness of English language learners through mobile-assisted problem-based learning**. *International Journal of Educational Research*, *133*, 102729. https://doi.org/10.1016/j.ijer.2025.102729
This study investigated the effects of mobile-assisted problem-based learning (PBL) on self-directed learning readiness (SDLR) among university students. Using an SDLR scale, pre- and post-surveys were conducted with 75 students enrolled in general English courses at a Korean university in 2024. Results show the students' significant improvements in SDLR, particularly in learning strategy management and technical proficiency. Increase was also observed in some items in learning proficiency in presentations and discussions, learning proficiency in lectures, assignment management, material comprehension competence, examination management, time management, and procrastination management. However, in the last category, a significant decline in concentration during lessons was identified. Gender differences revealed mobile-assisted PBL is especially effective for males in planning learning and goal-setting, although their concentration on learning decreased. Females were less likely to review test outcomes but showed better emotional control in the process of learning. These findings affirm mobile-assisted PBL as a valuable pedagogy for enhancing learner SDLR. Implications for contextualised practice of mobile-assisted PBL are discussed.

Han, Y., Yang, S., Han, S., He, W., Bao, S., & Kong, J. (2025). **Exploring the relationship among technology acceptance, learner engagement and critical thinking in the Chinese college-level EFL context**. *Education and Information Technologies*, *30*(11), 14761-14784. https://doi.org/10.1007/s10639-025-13375-1
Critical thinking (CT) has long been acknowledged as a fundamental goal of higher education, but how it associates with technology acceptance (TA) and learner engagement (LE) of Chinese learners of English as a foreign language (EFL) at the college level is underexamined. This article aimed to investigate the interrelationships among technology acceptance, learner engagement and critical thinking. Descriptive statistics generated from the questionnaire data disclosed that the 1026 participants exhibited decreasing but acceptable levels respectively in TA, LE and CT. Correlation analyses

manifested the significant effects of both technology acceptance and learner engagement on critical thinking. Regression analyses further highlighted learner engagement played as a mediator in the correlation between the other two variables. Additionally, technology acceptance was also found to mediate the influence of learner engagement on critical thinking to a minor degree. By addressing the research gap on the intricacies of the three factors stressing the bidirectionality of TA and LE, the study offered valuable pedagogical insights into engagement-enhancing integration of technology into College English course to promote learners' acceptance and proper use of technology for cultivating critical thinking at the tertiary level.

Hania, A., Waqas, M., & Chunyan, X. (2025). **Enhancing Teaching Competency in Higher Education: The Role of AI Efficacy, Social Media Use and Classroom Dynamics**. *European Journal of Education*, *60*(3), e70197. https://doi.org/10.1111/ejed.70197
The pursuit of enhanced teaching competency in higher education necessitates understanding multifaceted factors that influence effective teaching practices. This study investigated how AI efficacy, social media use and classroom dynamics enhance teaching competency among higher education faculty. Grounded in Bandura's Social Cognitive Theory, we analysed data from 304 university instructors using structural equation modelling. Results reveal that AI efficacy positively influences social media use, which significantly enhances teaching competency. While AI efficacy demonstrates no significant direct impact on teaching competency, its substantial indirect effect through social media use indicates complete mediation. Classroom dynamics, encompassing student engagement patterns, participatory learning environments and interactive teaching methods, emerge as a foundational element that strengthens both social media adoption and overall teaching effectiveness. The collaborative interaction between classroom dynamics and AI efficacy creates optimal conditions for technology-enhanced pedagogical practices. These findings highlight the interconnected roles of AI efficacy, social media engagement and classroom dynamics in fostering teaching excellence. The study offers valuable insights for educational institutions developing comprehensive faculty development programmes that integrate technological competency with pedagogical innovation in higher education settings.

Hannula, E., Sormunen, K., Hakkarainen, K., & Korhonen, T. (2025). **Students' experienced learning from co-invention projects in the context of the Innokas programming and robotics tournament**. *Education and Information Technologies*, *30*(13), 19183-19211. https://doi.org/10.1007/s10639-025-13509-5
Transdisciplinary invention projects based on traditional and digital fabrication technologies engage young people in designing and making complex artifacts and constitute a central aspect of future-oriented education. In Finland, comprehensive school students (aged 7–15) from all over the country can practice their inventive skills in the annual Innokas programming and robotics tournament. However, little is known about how students' learning manifests in the context of programming and robotics tournaments. To fill this research gap, this study was conducted to examine students' co-invention processes and the nature of the artifacts invented for the 2021 Innokas tournament. We analyzed the inventions produced, traced the co-invention processes, and examined the design roles and learning experiences of the team members. The data were obtained from semi-structured student interviews (n = 30) and included documents (videos, invention plans, and digital process diaries) that 10 teams generated during the co-invention processes. We analyzed the data via qualitative content analysis. The results

provide multifaceted knowledge regarding material prototyping in the iterative co-invention processes and the types of inventions that the teams created. The team members played various design roles, and their tasks were mostly shared. The teams rarely decided on the roles beforehand, but different team members could play the roles at some point in the work. The students' interview responses indicated that they learned technological, social, and process skills during the co-invention process. The problems encountered during the process were related to collaboration and project management and to technological challenges.

Hoang, L. P., Le, P. A., Le, H. T., Nguyen, D. T., Phan, T. C., Le, H. T., … Tran-Duong, Q. H. (2025). **Evaluating educational assessment competence of pre-service teachers: extended standards in the context of digital classroom assessment transformation**. *Education and Information Technologies*, *30*(12), 16347-16374. https://doi.org/10.1007/s10639-025-13467-y
This study explores the transformation of teaching and assessment methods in the context of media applications, particularly the rise of E-learning and blended teaching driven by rapid ICT advancements. These changes necessitate updates in teachers' teaching and assessment literacies to align with modern educational trends. This adaptation is essential for broadening the criteria of teachers' educational assessment competencies, particularly in pre-service teacher training programs. A comprehensive review of published research (1990–2020) revealed a gap in standards specifically tailored for evaluating pre-service teachers' educational assessment competencies. Existing standards, designed for both pre-service and in-service teachers, fail to account for the lack of real-world experience among pre-service teachers, potentially omitting key assessment criteria. To address this, the study introduces an adaptive KPIE framework (Knowledge, Practice, ICT integration, and Ethics) for measuring pre-service teachers' educational assessment competencies. This framework underpins the development of adaptive assessment standards tailored for pre-service teachers. Rigorous testing of these standards demonstrated strong reliability (Cronbach's Alpha = 0.986, KMO = 0.980) and was applied to evaluate 314 pre-service teachers across two educational universities. Results highlighted significant practical insights into pre-service teachers' classroom assessment competencies. These findings offer a foundation for refining training programs, strategies, and plans to better equip pre-service teachers for educational innovation.

Hoang, N. H. (2025). **E-leadership in the AI era: Exploring Vietnamese EFL teachers' digital leadership development in AI integration**. *Education and Information Technologies*, *30*(12), 16895-16928. https://doi.org/10.1007/s10639-025-13451-6
The integration of artificial intelligence (AI) in language education necessitates new forms of digital leadership, yet research on how language teachers develop e-leadership competencies remains limited, particularly in non-Western contexts. This study investigates how Vietnamese EFL teachers develop and exercise e-leadership competencies in implementing AI tools. Using an exploratory sequential mixed-methods design, the study combined in-depth interviews with 17 EFL teachers and a survey of 211 teachers across Vietnamese universities. The research framework integrated e-Leadership Theory and the Technology Acceptance Model. Key findings reveal that successful e-leadership requires a balance of technical proficiency ($\beta = 0.31$, $p < 0.001$) and cultural sensitivity ($\beta = 0.28$, $p < 0.001$). Three primary dimensions of e-leadership competencies emerged: technological proficiency with guidance capability,

pedagogical innovation in AI integration, and culturally responsive change management. The research also highlights critical ethical considerations in AI implementation, particularly regarding assessment transparency and decision-making processes. These findings inform the development of culturally sensitive professional development programs and provide a framework for understanding e-leadership development in non-Western educational settings.

Hou, C., Zhu, G., & Sudarshan, V. (2025). **The role of critical thinking on undergraduates' reliance behaviours on generative AI in problem-solving**. *British Journal of Educational Technology*, *56*(5), 1919-1941. https://doi.org/10.1111/bjet.13613
There is a heightened concern over undergraduate students being over-reliant on Generative AI and using it recklessly. Reliance behaviours describe the frequencies and ways that people use AI tools for tasks such as problem-solving, influenced by individual factors such as trust and AI literacy. One way to conceptualise reliance is that reliance behaviours are affected by the extent to which learners consciously evaluate the relative performance of AI and humans, suggesting the potential impacts of critical thinking on reliance. This study, thus, empirically investigates the relationship between critical thinking and reliance behaviours. Critical thinking includes disposition and skills. However, limited empirical studies have investigated how critical thinking influences learners' reliance behaviours when solving problems with Generative AI. Hence, the current study conducted path analyses to investigate how critical thinking is associated with reliance behaviours and how it mediates the effect of individual factors on reliance behaviours. We collected 808 survey responses on critical thinking disposition and skills, reliance behaviours (a self-developed and validated scale, including reflective use, cautious use, thoughtless use, and collaborative use), trust towards AI, and AI literacy from undergraduates after a problem-solving task with Generative AI. The results indicate that (1) critical thinking is positively associated with the collaborative, reflective, and cautious use of Generative AI, suggesting that these three types of use of Generative AI could be considered desirable behaviours in human–AI problem-solving; (2) trust positively predicts thoughtless use; (3) critical thinking can offset the influence of trust on collaborative, reflective and cautious use; and (4) critical thinking can amplify the influence of AI literacy on reflective, cautious and collaborative use. This study contributes new insights into understanding the role of critical thinking in fostering desirable reliance behaviours, including reflective, cautious and collaborative use, and provides implications for future interventions when applying Generative AI for problem-solving. Practitioner notes What is already known about this topic? Generative AI tools can potentially enhance problem-based learning (PBL) by supporting brainstorming and solution refinement. Reliance behaviours in human-AI collaboration are influenced by factors such as trust in AI and AI literacy. Strategy-graded reliance emphasizes the reasoning process leading to reliance behaviours, focusing on thoughtful engagement with AI tools, and this cognitive process can be captured by critical thinking. What this paper adds? Critical thinking is positively associated with the reflective, collaborative, and cautious use of Generative AI. Critical thinking mediates the effects of trust and AI literacy on reliance behaviours, amplifying reflective, cautious and collaborative use while mitigating the thoughtless use of Generative AI. The study introduces a nuanced understanding of reliance behaviours by applying a strategy-graded framework, emphasising cognitive engagement rather than a purely outcome-based understanding of reliance behaviours. Implications for practice and/or policy Educational interventions could consider critical thinking when integrating AI tools in problem-solving contexts. Students' trust in AI needs to be balanced with

critical thinking skills to reduce overreliance and enhance thoughtful engagement with AI tools.

Hsiao, K.-L., Chen, M.-Y., & Liao, Y.-R. (2025). **Development and evaluation of a metaverse competency scale for university students**. *Education and Information Technologies*, *30*(13), 18301-18326. https://doi.org/10.1007/s10639-025-13520-w
This study developed a Metaverse Competency Scale (MCS) to measure users' proficiency in crucial metaverse skills. The scale was built on a thorough literature review covering digital avatars, immersive experiences, and decentralized value exchange. A two-phase questionnaire approach was employed. In the first phase, a pre-test questionnaire, validated by experts, was administered to 241 participants. Exploratory factor analysis (EFA) resulted in 32 retained items. The second phase involved testing the refined questionnaire with 615 participants and conducting EFA, confirmatory factor analysis, and structural equation modeling, leading to a final 24-item scale. The results indicated strong reliability, validity, and a good model fit, confirming the scale's effectiveness in assessing users' metaverse competencies. Path analysis further revealed that mastery of digital avatars, immersive experiences, and decentralized value exchange was positively associated with higher motivation to engage in metaverse activities. These findings offer valuable insights into user competency and motivation, making the MCS a helpful tool for guiding training and education programs that enhance user participation and experiences in the metaverse.

Hu, X., Sriwisathiyakun, K., & Sitthiworachart, J. (2025). **Integrating micro-learning and station rotation blended learning model: enhancing Japanese communication skills of Chinese undergraduates**. *Education and Information Technologies*, *30*(12), 16747-16770. https://doi.org/10.1007/s10639-025-13464-1
In the rapidly evolving language education landscape, integrating innovative pedagogical approaches is essential to meet the diverse needs of learners. This study explores the efficacy of a Micro-Learning Media with Station Rotation Blended Learning Model (MLM-SRM) in enhancing the Japanese communication skills—specifically speaking, listening, and reading—of second-year students at Sichuan University. The research employed a pre-test-post-test randomized controlled experimental design, involving 80 students who were randomly assigned to either the MLM-SRM group or a traditional teaching group. Data were collected using well-established rubrics for speaking, listening, and reading skills, and analyzed through mean, standard deviation, Cohen's d, and one-way MANOVA. The results revealed that students in the MLM-SRM group significantly outperformed those in the traditional group in overall language proficiency, with the most substantial gains observed in reading skills, followed by speaking and listening. A deeper analysis highlighted significant improvements in interactive communication for speaking, interactive and response skills for listening, and text structure for reading among the MLM-SRM participants. Furthermore, a thematic analysis of students' open-ended survey responses underscored a positive reception towards the MLM-SRM, indicating its potential as an effective tool for language instruction. These findings underscore the importance of the MLM-SRM approach, which immerses students in an engaging and diverse learning environment and holds significant implications for theory and practice. This approach can potentially transform how languages are taught and learned globally.

Hung, W.-C., Lin, C.-P., & Chen, H.-H. (2025). **The role of social cognitive theory in physical literacy and autonomy support through competency-based physical education in Taiwan**. *International Journal of Educational Research*, *133*, 102679. https://doi.org/10.1016/j.ijer.2025.102679
This study aims to explore how SCT explains the effects of implementing competency-based physical education on elementary school students' perceived physical literacy, perceived teacher autonomy support, and physical activity levels

Husson, L., Bournaud, I., & Philion, R. (2025). **Être tuteur d'apprenant en situation de handicap : quelles compétences transversales développées ?** *QPES 2025 Colloque "Questions de pédagogie dans l'enseignement supérieur"*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05160178
RESUMEPlusieurs Écoles d'ingénieurs françaises déploient depuis une dizaine d'années un programme de tutorat pour apprenants (collégiens, lycéens, étudiants) en situation de handicap. Nous présentons ici les résultats d'une enquête quantitative menée auprès d'une soixantaine de ces tuteurs concernant les compétences transversales développées à travers cette expérience. Ils ont été interrogés en fin d'année universitaire (au terme des séances de tutorat) sur l'évolution de leur maitrise de 15 « compétences » identifiées comme pouvant être déployées dans le cadre du tutorat. Les résultats confirment et affinent ceux obtenus dans une étude préalable de journaux d'apprentissage remplis par des tuteurs. Ils indiquent réaliser des apprentissages sur les deux volets (i) savoir interagir aisément avec des personnes en situation de handicap et (ii) de multiples compétences telles que faire preuve d'écoute et d'empathie, et s'adapter aux besoins spécifiques et évolutifs de leur tutorés.

Ijassi, W., & Zwolinski, P. (2025). **Teaching environmental impact assessment for present and future engineers: Current and future trends**. *Procedia CIRP*, *135*, 450-455. https://doi.org/10.1016/j.procir.2024.12.048
Demand for environmental impact assessment skills among decision-making engineers has led to a considerable evolution of the pedagogical offer in universities and companies. The offered courses focus on providing trainees with the competencies required to evaluate the environmental footprint of a product or a service, and mitigate those accordingly. To understand the various trends of such teachings, and identify their main challenges, this paper investigates key courses and teaching approaches used among the engineering students of the Grenoble Alps University. To do so, a framework was developed where the IPAT equation was used as a basis to analyze three types of courses: contextual, methodological, and integrated. Findings from the analysis were discussed, leading to the proposal of five future trends, such as integration of relevant training stakeholders in the definition of the main pedagogical strategy, and the formalization of a framework for the testing of tools developed inside partner research institutes.

Jia, R. (2025). **Practical application and industry relevance: the role of off-campus training in student skill development**. *Education and Information Technologies*, *30*(11), 15719-15755. https://doi.org/10.1007/s10639-025-13408-9
An off-campus practical course is one in which students receive practical training in a vocational workplace outside of their educational institution. These courses focus on practical skills rather than academic knowledge and are essential for students to gain real-world experience and develop skills needed in the modern workforce. The research

objective is to explore the continuous development of off-campus practical courses using the Outcome-Based Education (OBE) framework. The study used both qualitative and quantitative research methods, with 900 structured questionnaires distributed and 847 valid responses collected from students and teachers. The quantitative data were analyzed using SPSS software, and the qualitative data were analyzed using NVivo software. The findings highlight that off-campus practical courses improve students' problem-solving skills, practical application abilities, industry-relevant performance, and engagement compared to traditional classroom-based education. Theoretically, this study contributes to the growing body of research on OBE by demonstrating how off-campus practical courses, when aligned with OBE principles, can better equip students with the skills required by modern industries. The study enriches the OBE framework by providing evidence of how it enhances not only technical knowledge retention but also fosters critical competencies such as problem-solving, industry-specific performance, and engagement. Practically, the study provides insights for educators and industry stakeholders to design off-campus programs that align with both academic and vocational outcomes. The novelty of this study lies in its exploration of how off-campus practical courses can be continuously improved to better prepare students for the challenges of the contemporary workplace.

Karaca, H., Ertekin, E., & Cagiltay, K. (2025). **Investigating middle school students' eye movements on the mathematical representations: An eye-tracking study**. *Education and Information Technologies*, *30*(11), 16189-16210. https://doi.org/10.1007/s10639-025-13436-5

In mathematics education, representations are used in place of mathematical structures, ideas, or relationships to concretize, transform, and represent them. When students interact with these representations, they engage in various cognitive activities such as thinking, reasoning, understanding, remembering, problem-solving, attention, and decision-making, which are difficult to observe. Therefore, uncovering these cognitive activities is very significant for mathematics education. However, they are not easy to uncover as they cannot be directly observed. Eye tracking is an important approach that can be used to reveal cognitive activities that cannot be directly observed. This study investigated how middle school students examine representations by examining their eye movements. Eighty-five (40 girls and 45 boys) 7th-grade middle school students participated in the study. In the study, gaze durations, fixation count, and fixation duration on four different representation types: verbal representation, symbolic representation, number line representation, and counters representation were compared. The findings showed that students fixated more on the verbal representation and gazed at it for longer. However, fixation durations on the verbal representation were quite short compared to the other representations. In contrast, when examining the counters, there were fewer fixations and shorter gaze durations, but fixation durations were longer. Gazes on the number line and symbolic representation did not differ across all three variables. The findings indicated that gaze on verbal and non-verbal representations differed to some extent, but not entirely. Finally, the findings are discussed in the context of mathematical representation and eye-tracking literature.

Kaur, P. C., & Ragha, L. (2025). **Fuzzy-based DCKN: Fuzzy-based deep convolutional kronecker network for semantic analysis of summarized video**. *Education and Information Technologies*, *30*(11), 15545-15585. https://doi.org/10.1007/s10639-024-13298-3

Video summarization is a method of deducing the content of video content for generating a summary in video format. The generated summary should have the significant segments of raw video. Recently, the content of video has been rapidly increasing, thus automatic video summarization is beneficial for individuals who want to keep time and learn more in a specific time. However, online courses do not fully control the content since it has diverse open challenges in video indexing, customization requirements, and summarization for particular courses. To overcome this gap, a semantic analysis of a summarized video named Fuzzy-based Deep Convolutional Kronecker Network (Fuzzy-based DCKN) is proposed. The input lecture audio and video are carried out on video shot segmentation is done by the YCbCr space color model. Afterwards, segment the audio and video from every slot using the Honey Badger Based Bald Eagle Algorithm (HBBEA), and the features are extracted from this phase. Then, select the important segments by Deep Residual Network (DRN). Furthermore, combine the relevant audio and video to obtain the summarized video. Here, the summarized video is given to frame extraction individually, where the text content extraction and residual image extraction are accomplished by optical character recognition (OCR) and Deep Residual Network (DRN) respectively. The score generation is done with the Deep Belief Network (DBN). Hence, semantic summarization is achieved by Fuzzy-based DCKN along with summarized video. Finally, the proposed semantic extraction module is directly given to the original lecture input video before summarization and analyzed the outcome with the proposed module after the summarization video. Here, the performance measures like Accuracy, Precision, Recall, F1-score, and Negative predictive value (NPV) used for OCR gained 92.9%, 91.0%, 92.5%, 91.7%, 90.3%, and 7.5%; semantic summarization achieved 92.8%, 91.5%, 92.2%, 91.8%, 90.2%, and 7.8%; DL methods acquired 92.6%, 91.3%, 92.5%, 91.9% and 90.8%, and 7.5%; Fuzzy-based DCKN with video summarization obtained 92.3%, 91.8%, 92.9%, 92.3%, 90.3%, and 7.1%; and Fuzzy-based DCKN without video summarization observed 91.9%, 90.86%, 91.87%, 91.36%, 89.57%, and 8.12%.

Kelder, J.-A., Crawford, J., Al Naabi, I., & To, L. (2025). **Enhancing digital productivity and capability in higher education through authentic leader behaviors: A cross-cultural structural equation model**. *Education and Information Technologies*, *30*(12), 17751-17767. https://doi.org/10.1007/s10639-025-13422-x

In higher education, the ability to navigate and function well in a diverse digital ecosystem is now essential to student, academic, and professional flourishing and productivity. Universities had to respond to a pandemic that catapulted face-to-face offerings into online and hybrid environments. More recently, a preference for working from home in addition to remote work and the emergence of generative artificial intelligence is straining the capacity of educational leaders to effectively support their workforce. In this international study, we survey 533 university employees (primarily academics) and provide evidence for the effect of authentic leadership on digital productivity through digital capability and digital preparedness to work and to teach. Through structural equation modelling, we identify opportunities to prioritise effective leadership development with nested digital capability to support universities to build more resilient and productive workers to achieve better educational outcomes. Critically, recognising and developing authentic leader behaviors should be embedded into higher education policy and strategy to improve productivity, including programs to develop academic capability to use digital technologies effectively in their teaching or other academic roles.

Kiziltaş, Y., & Kultas, E. (2025). **The effect of web 2.0 tools on primary school students' writing motivation and their role in developing creative writing skills**. *Education and Information Technologies*, *30*(11), 15993-16022. https://doi.org/10.1007/s10639-025-13419-6
Web 2.0 tools for teaching purposes in schools are quite common. With Web 2.0 tools, students have the opportunity to both have fun and learn. Thus, students' willingness and motivation towards writing increases. Students whose writing motivation increases can write creatively in the process. The main purpose of this research is to reveal the effects of Web 2.0 tools on primary school students' writing motivation and their role in developing their creative writing skills. For these purposes, a quasi-experimental design model with a pretest-posttest control group was applied in the current study. Storyboard That and Storyjumper Web 2.0 tools were used in the research. During the research, creative writing activities were carried out in digital environments in the experimental group. In contrast, creative writing activities were carried out with paper and pencil in the control group. The research revealed that Web 2.0 tools improved creative writing skills. In addition, there was a significant difference in students' post-test scores and writing motivation compared to the pre-test. It was concluded that Web 2.0 tools were effective in writing motivation. The development of students' creative writing skills was another important result.

Kuo, B.-C., & Chang, F. T. Y. (2025). **Development and application of a self-regulated learning questionnaire in the large-scale digital learning context**. *Education and Information Technologies*, *30*(12), 16463-16486. https://doi.org/10.1007/s10639-025-13438-3
In the modern era, students increasingly access digital tools like adaptive learning platforms to enhance self-regulated learning (SRL). This study developed and validated a Self-Regulated Learning Integrated Questionnaire (SRLIQ) tailored for offline and online learning environments, particularly in AI-driven platforms like the Taiwan Adaptive Learning Platform (TALP). The SRLIQ was designed to assess SRL abilities and explore its relationship with academic achievement and learning engagement in large-scale digital learning contexts. The study involved 66,647 participants from Grade 3 to Grade 8 across 21 cities in Taiwan. Data were collected in three stages (June 2022, December 2022, and June 2023), including questionnaire responses, TALP engagement metrics, and standardized assessment scores in Chinese, English, and Mathematics. Findings indicated good construct validity and alignment between the observed data and the theoretical model. Cross validity testing demonstrated the SRLIQ's generalizability across gender, grade level, and geographic region, but not across time stages. SRL scores significantly improved in Stage 3, likely due to the Digital Learning Enhancement Plan. Additionally, SRLIQ scores correlated with standardized assessments, affirming its effectiveness in linking SRL with academic performance. Students engaging consistently with TALP achieved higher SRLIQ scores, highlighting the importance of sustained digital engagement. These findings underscore SRLIQ's utility in diverse educational settings and its relevance to modern digital learning environments.

Lampropoulos, G., & Chen, N.-S. (2025). **Assessing the educational impact of extended reality applications: Development and validation of a holistic evaluation tool**. *Education and Information Technologies*, *30*(11), 15231-15280. https://doi.org/10.1007/s10639-025-13383-1

This study aims to create and validate an evaluation tool that assesses the learning effectiveness of extended reality applications (e.g., augmented reality, virtual reality, mixed reality, and the metaverse). Six research questions were formulated to guide this study. The Extended Reality in Education (XREd) questionnaire consists of 50-items derived from 25 existing and validated questionnaires and surveys. The tool uses a 1–5 Likert scale and its items correspond to 15 factors, which are categorized into 5 dimensions. Both the factors and dimensions are supported by related theoretical aspects and background, and are grouped as follows: (1) System usability: Ease of use and Instructional clarity, (2) Learner's basic psychological needs: Enjoyment, Autonomy, Self-efficacy, and Social interaction, (3) Learner's learning state: Flow, Presence, and Immersion, (4) Learner's learning performance: Learning outcomes, Learning motivation, and Learning engagement, (5) Learner's learning perceptions: Perceived usefulness, Learning preferences alignment, and Behavioral intention. To validate the tool, descriptive statistics and reliability tests, validity tests, and factor analyses, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM) were used. An extended reality application was developed and applied in higher education settings over the course of a semester. The experiment data was used to validate the created evaluation tool, which was then used to evaluate the effectiveness of the developed XR application and to answer the 6 research questions set to be explored. The results confirmed the validity of the XREd questionnaire and its effectiveness in evaluating extended reality applications. Additionally, its potential to be modularly integrated to evaluate non-extended reality learning applications was highlighted. Finally, the developed application was positively assessed by students, who regarded it as an effective learning tool that can support and enrich their learning experience and improve learning outcomes.

Lee, S., Lee, Y., Park, S.-Y., & Ham, E. H. (2025). **Exploring the dynamics of self-regulated learning in online courses: trajectories of self-regulated learning and the role of basic psychological needs satisfaction across different achievement levels**. *Education and Information Technologies*, *30*(12), 16861-16891. https://doi.org/10.1007/s10639-025-13443-6

This study aimed to investigate the trajectories of students' self-regulated learning in an online course and the predictive role of students' satisfaction with basic psychological needs (autonomy, competence, relatedness) on these trajectories. Additionally, the potential variation in the relationship between basic psychological needs and self-regulated learning based on students' achievement levels was examined. The analysis of data revealed a significant increase in students' self-regulated learning scores throughout the three-month course. Data from 1,105 elementary and middle school students participating in an online learning program were collected over four 12-week periods. This study confirmed the increase in learners' self-regulated learning in an online learning environment over a 12-week period. The study found that autonomy, competence, and relatedness were related to the initial value of self-regulated learning but did not significantly influence the growth of self-regulated learning over the course. The study also found that the relationship between basic psychological needs and self-regulated learning varied among different achievement groups. Autonomy and competence played a significant role in predicting the initial level of self-regulated learning in all groups, regardless of achievement level, whereas relatedness had the most substantial effect for the high-achieving group.

Li, S.-Y., Ho, C.-Y., & Wu, S.-P. (2025). **The impact of thematic teaching on student learning outcomes in computer programming applications**. *Education and Information Technologies*, *30*(11), 15791-15815. https://doi.org/10.1007/s10639-025-13418-7
This study originates from the observation during teaching and student interactions that students in industry-academic cooperative programs have very limited time to dedicate to coursework. The target group for this research consists of third-year students in the Mechanical Engineering industry-academia collaborative training program, and sessions are conducted in the shared computer lab, Room 312. All 40 students were informed of the study details and signed consent forms. This research was initiated based on observations from teaching sessions and internship evaluations, which revealed that these students face challenges such as heavy workloads, condensed class schedules, and limited familiarity with programming. With limited classroom time, designing content that captures students' attention and enhances learning efficiency is a primary objective of this study. This research introduces a topic-based teaching approach, which was pilot-tested in the 2021 academic year and fully implemented in the 2022 academic year. The topic-based approach comprises three stages: topic explanation and programming implementation, problem-based exercises with peer learning, and results presentation with in-depth discussion. After completing each topic, both qualitative and quantitative questionnaires are administered to facilitate rapid instructional feedback, thereby scientifically refining the teaching and learning process. The study findings show high effectiveness in quantitative metrics, with student evaluations consistently above 4 out of 5 and a gradual increase in satisfaction with the teaching team as topic difficulty rose (from 4.48 to 4.70). In qualitative feedback, students expressed strong agreement that the topic-based approach enhanced their understanding of programming applications and techniques, peer interactions deepened knowledge retention, and team presentations fostered greater engagement. Course evaluation scores improved from 4.03 to 4.49, and final grades increased significantly from 70.23 to 87.26 (with a 12.7% improvement in teaching effectiveness and a 24.2% increase in overall semester grades.). These results indicate that, compared to conventional teaching methods, the topic-based approach effectively ignites students' enthusiasm for learning and improves learning outcomes.

Li, Xiaoli. (2025). **Cultural competence in technology-assisted language teaching: insights from higher education**. *Education and Information Technologies*, *30*(13), 18921-18953. https://doi.org/10.1007/s10639-025-13495-8
As global education evolves, the need for cultural competence training for English language instructors has become increasingly critical, especially in higher education institutions with diverse student populations. This study examines how cultural competence training impacts teaching methodologies, intercultural communication, and the creation of inclusive learning environments. A quantitative research approach was employed, gathering data from 450 participants using structured questionnaires, with 385 valid responses analyzed using SPSS. Advanced statistical techniques, such as Exploratory Factor Analysis (EFA) and Multivariate Analysis of Variance (MANOVA), were utilized to examine the connections between training and its outcomes. The findings reveal that cultural competence training significantly enhances teacher awareness of diverse student backgrounds, their ability to integrate cultural content into curricula, and their sensitivity to cross-cultural communication challenges. Additionally, teachers demonstrated improved adaptability and communication strategies when engaging with international students. By addressing gaps in prior research and offering actionable

insights, this study highlights the importance of integrating cultural competence training into professional development programs to foster inclusive and equitable education in globalized academic settings. The findings offer concrete implications for higher education institutions, including refining teacher training curricula, enhancing cross-cultural engagement strategies, and promoting inclusive policies to support diverse student populations.

Li, Xuan, Xiao, J., Gao, H., Zheng, W., & Zhao, X. (2025). **"It is not a top priority": Exploring how Chinese university students enact their agency in developing global competence**. *International Journal of Educational Research*, *133*, 102667. https://doi.org/10.1016/j.ijer.2025.102667
Global competence is increasingly important for students in an internationalised world, but the role of students' personal agency in developing this competence has attracted little research, especially concerning domestic students in non-Western contexts. To explore students' exercise of agency to build global competence, and the personal and structural factors influencing agency, this study gathered qualitative data from 52 domestic students in two universities in China. Four distinct profiles of student agency in pursuit of global competence were identified: proactive, strategic, constrained, and minimal. Students who perceived global competence as aligned with their personal goals and motivations, and who felt capable of achieving those goals, were more likely to engage proactively in developing this competence. However, the majority of participants demonstrated more limited or even minimal agency in developing global competence, often assuming it was beyond their capabilities and/or not sufficiently relevant to their academic and personal lives. Inadequate institutional efforts to internationalise the student experience, an over-emphasis on academic achievement, and insufficient family support were identified as factors contributing to the observed patterns of limited agency. These findings call for more effective university approaches to promote student engagement with global competence, including reforms to assessment systems and greater internationalisation of educational provision to recognise and foster students' holistic development.

Liu, J., & Yang, J. (2025). **Translation and english language learning: A study on its effectiveness across different levels of proficiency**. *Education and Information Technologies*, *30*(13), 18539-18577. https://doi.org/10.1007/s10639-025-13494-9
This study investigates the effectiveness of translation-based learning in enhancing vocabulary retention, comprehension, and learner confidence across different proficiency levels among English language learners. While the use of translation in language learning has been debated, research on its impact at varying proficiency levels remains limited. This study aims to address this gap by exploring how translation influences vocabulary acquisition, reading comprehension, confidence, and recall speed. A mixed-methods approach was used, involving 289 participants from diverse educational settings. Quantitative data were collected from 270 learners through structured questionnaires, vocabulary assessments, and comprehension tests. Qualitative data were gathered from 30 participants through focus groups and semi-structured interviews. Data were collected in three phases—pre-intervention, intervention, and post-intervention—over a two-month period (March 1–April 30, 2024). The analysis of quantitative data was conducted using SPSS, while NVivo was used to analyze qualitative data. The findings revealed that translation-based learning significantly improved vocabulary retention and comprehension, with learners showing increased

confidence and faster recall. These effects were most notable among beginner and intermediate learners, while advanced learners showed more limited improvements. The study highlights the potential of translation as an effective tool for language learning, particularly when tailored to learners' proficiency levels. By examining the impact of translation at different stages of language acquisition, the study provides valuable insights into how translation-based methods can be adapted to meet the specific needs of learners at various proficiency levels.

Lu, C., Zhang, S., Yu, X., & Wang, Q. (2025). **Computational thinking of elementary school students in social support systems: exploring the influence effects of teachers, family, and peers**. *Education and Information Technologies*, *30*(12), 17531-17555. https://doi.org/10.1007/s10639-025-13475-y
This study aims to investigate the role of social support—specifically from family, teachers, and peers—in enhancing computational thinking (CT) abilities among elementary school students. Grounded in social support theory, the scales related to teacher, parental, and peer support were adapted from the PSIA test. After ensuring their reliability and validity, multiple regression analysis and Shapley value decomposition methods were employed to assess survey data from 3,018 elementary school students in grades 3 to 6 across three provinces in central China (Hunan, Hubei, and Henan). The findings reveal that all three types of social support positively influence student's CT proficiency, with teacher's emotional support having the most significant impact, particularly on creativity, problem-solving, and collaboration. Family support also enhances CT skills across these dimensions, while peer support primarily affects collaborative skills. Notably, teacher's emotional support interacts positively with both family and peer support, while cognitive support from teachers complements peer support independently of family involvement. This study provides a social support framework for educators and policymakers to foster student's computational thinking, suggesting that strengthening emotional and cognitive support from teachers, along with encouraging family and peer involvement, can significantly improve student's CT skills. Limitations and directions for future research are discussed, with an emphasis on the need for longitudinal studies and exploration of diverse educational contexts.

Lubbe, A., Marais, E., & Kruger, D. (2025). **Cultivating independent thinkers: The triad of artificial intelligence, Bloom's taxonomy and critical thinking in assessment pedagogy**. *Education and Information Technologies*, *30*(12), 17589-17622. https://doi.org/10.1007/s10639-025-13476-x
Amalgamating generative artificial intelligence (Gen AI), Bloom's taxonomy and critical thinking present a promising avenue to revolutionize assessment pedagogy and foster higher-order cognitive skills needed for learning autonomy in the domain of self-directed learning. Gen AI, a subset of artificial intelligence (AI), has emerged as a frontrunner in creative tasks, revolutionizing various domains such as art, music, writing and design and showcasing its ability to generate original content across various domains, including education. Incorporating social, cultural, economic and pedagogical dimensions, AI in education encompasses the incorporation of AI technologies like intelligent tutoring systems, chatbots, robots, learning analytics dashboards, adaptive learning systems and automated assessment to bolster and elevate the educational process. The significance of the impact on the creativity component of Krathwohl's revised Bloom's taxonomy arises from the utilization of Gen AI in creative tasks, which prompts concerns regarding the authenticity and originality of AI-generated content. This conceptual research study

seeks to investigate the affordances of this amalgamation and aims to reframe the higher cognitive levels of Bloom's taxonomy to enhance critical thinking and self-directed learning among students. This study grounds the reader in the existing literature and sets a course for where research in this field should be heading, thus adding value, rather than only providing an overview of the literature. The overall aim of this research was to explore the affordances of the amalgamation of AI, Bloom's taxonomy and critical thinking to support assessment pedagogy for self-directed learning. This paper identifies the gap in the current literature about reconceptualizing assessment pedagogy for developing higher-order thinking skills in a Gen AI higher education landscape. This paper presents a case of revisiting Bloom's taxonomy, advocating the importance of AI fluency and assessment literacy for the development of critical thinking skills and self-directed learning.

Luo, G., Niu, C., Lu, L., Wu, L., & Huang, L. (2025). **Empirical study on the double-edged effects of generative artificial intelligence on team creativity among university students**. *Education and Information Technologies*, *30*(13), 18853-18878. https://doi.org/10.1007/s10639-025-13527-3
University students are increasingly using generative artificial intelligence (AI) tools in creative tasks. Drawing from the literature on AI–human interaction and team creativity, the present study developed a moderated mediating model regarding the effects of generative AI on team creativity. To validate the developed model, a questionnaire survey was conducted among 308 students from 66 collaborative groups, and the collected questionnaire data were analyzed through partial least squares structural equation modeling (PLS–SEM). The results of this study indicate that the perceived intelligence of generative AI can indirectly promote team creativity through collective efficacy and suppress team creativity through task conflict. Furthermore, team trust strengthens the relationship between the perceived intelligence of generative AI and collective efficacy such that it also strengthens the indirect relationship between the perceived intelligence of generative AI and team creativity through collective efficacy. The results of this study have crucial theoretical implications as well as vital practical implications for designers of educational generative AI tools.

Luo, L., Hu, J., Zheng, Y., & Li, C. (2025). **Human vs. AI: Does AI learning assistant enhance students' innovation behavior?** *Education and Information Technologies*, *30*(12), 17483-17530. https://doi.org/10.1007/s10639-025-13474-z
Students are increasingly utilizing AI educational tools in their daily learning, complementing human instructors. Yet, little is known about how and when learning assistant type (Human vs. AI) influences students' innovation behavior. To better understand these ambiguities, based on self-determination theory and organizational climate theory, the current study constructs a dual pathway model and conducts three online experimental studies to explore the mixed effects of learning assistant type on students' innovation behavior. Study 1 provides sufficient evidence that AI (vs. Human) learning assistants will both enhance students' perceived autonomy, thereby promoting their innovation behavior (autonomous pathway), and increase students' self-esteem threat, thereby inhibiting their innovation behavior (competent pathway). Study 2 shows that high organizational readiness of the college will strengthen the autonomous pathway and buffer the competent pathway. Study 3 further demonstrates that the anthropomorphic design of AI learning assistants is beneficial for enhancing students' innovation behavior through increased perceived autonomy and decreased self-

esteem threat. These findings deepen our understanding of the differences of students' perceptions and responses towards human and AI learning assistants, and they provide valuable practical implications for the promotion of AI learning assistants.

Luo, M., Hu, X., & Zhong, C. (2025). **The collaboration of AI and teacher in feedback provision and its impact on EFL learner's argumentative writing**. *Education and Information Technologies*, *30*(12), 17695-17715. https://doi.org/10.1007/s10639-025-13488-7
With the rapid development of artificial intelligence (AI), a new educational model where AI and teachers work together to improve learning outcomes has emerged. Although previous research has focused on comparing the effects of AI and teacher feedback, the division of labor between them has received little attention. Focusing on enhancing learners' English argumentative writing, this paper examines the collaboration of AI and teacher in feedback provision and its impact on learners' writing. Twenty-eight tenth-grade students participated in the study, using feedback from both their teachers and the AI tool, DeepL Write, to revise essays. The study compared the effects of AI-only and teacher + AI hybrid feedback using Coh-Metrix to analyze the writing quality across three drafts: the original (draft 1), the AI-assisted revision (draft 2), and the teacher-assisted revision on draft 2 (draft 3). The results revealed that the AI-only feedback was effective in lexical and grammatical aspects but had weaknesses in improving content selection, coherence and cohesion, which could be mitigated through the integrated use of teacher and AI feedback. Based on the findings, we propose a partially automated hybrid approach that allows AI writing tool to execute feedback provision at lower levels, while teachers focus on offering insights at higher levels of writing. The findings of this research will contribute to a better understanding of the mechanism of teacher and AI cooperation in feedback provision. Future research needs to explore students' learning autonomy and assess the long-term impact of AI and teacher feedback integration in writing development.

Ma, L., & Xu, L. (2025). **Critical thinking dispositions and foreign language learning: A moderated mediation analysis of self-efficacy and gender**. *International Journal of Educational Research*, *133*, 102740. https://doi.org/10.1016/j.ijer.2025.102740
Previous studies have established an association between critical thinking (CT) dispositions and foreign language (FL) achievement. However, the indirect mechanisms underlying this relationship remain underexplored. Grounded in social cognitive theory, this study investigated the mediating role of self-efficacy in the link between CT dispositions and FL achievement, and further examined how gender moderates this indirect pathway using a moderated mediation approach. A cohort of 16,006 secondary school students from Beijing, China (grades 7 to 12), with an average age of 14.84 years (SD = 1.42), participated in the study. Data on CT dispositions, self-efficacy, FL achievement, and gender were collected through student self-reports. The mediation analysis indicated that self-efficacy partially mediated the association between CT dispositions and FL achievement. The moderated mediation analysis further demonstrated that the mediation effect was significantly stronger among male students. These findings provide significant insights into FL teaching and learning and contribute to a deeper understanding of social cognitive theory within the context of FL education.

Maehler, D. B., Hernández-Torrano, D., Courtney, M. G. R., Fischer, F. P., Hollricher, L. F., & Gorges, J. (2025). **PIAAC Survey of Adult Skills: A review of the research landscape**.

International Review of Education, *71*(4), 685-714. https://doi.org/10.1007/s11159-024-10123-4
The Programme for the International Assessment of Adult Competencies (PIAAC) of the Organisation for Economic Co-operation and Development (OECD) has transformed international research and policy debates on the assessment of adult skills. Although research using PIAAC data is accumulating, little is known about how these data are used and what they contribute to developing the various disciplines interested in adult skills. In this study, a data-driven approach was used to examine PIAAC-based international research to date. Drawing on a comprehensive analysis of 880 publications, the review found that the field of PIAAC research is young and geographically diverse, with dominant contributions from the United States and Germany. While PIAAC research relies on a broad pool of researchers with high collaboration rates, only a quarter of publications involve international collaboration. The analyses also revealed that the development of the field is based on four interrelated disciplines (education, sociology, psychology and economics) and three differentiated historical paths: theoretical and methodological approaches to the measurement of adult skills, cognitive skills and problem solving in technology-rich environments at the workplace, and the role of adult literacy skills for societal and economic development. Moreover, the PIAAC literature addresses a broad range of topics, including cognitive, non-cognitive and basic skills (e.g. literacy and numeracy), human capital, occupational mismatch, migration, "returns to skills", informal learning and large-scale assessment methodologies. Implications for further development of PIAAC research for users of PIAAC data, data-providing institutions and policymakers are discussed.

Mellati, M., & Valizadeh, M. (2025). **Exploring the emotional landscape: How graduate students' views on social networks influence their engagement in tech-enhanced learning environments**. *Education and Information Technologies*, *30*(12), 16269-16290. https://doi.org/10.1007/s10639-025-13613-6
This research investigates how tertiary students' views on social networks for learning purposes relate to their emotional reactions and their level of academic involvement in technology-supported learning environments. A total of 890 Iranian EFL (English as a Foreign Language) students from five provinces (Esfahan, Tehran, Markazi, Shiraz, Khorasan Razavi, and Tabriz) were invited to participate, yielding 521 valid responses. Three instruments were employed: a Social Media Usage and Perceptions Questionnaire, an Academic Engagement Questionnaire, and a Learners' Emotion Questionnaire. The SEM analysis was performed using SPSS version 27 and AMOS version 24; incorporated various techniques, including correlation, regression, and factor analysis. The findings indicate a positive relationship between students' favorable perceptions of social networks and their positive emotions, which significantly contribute to higher academic engagement in tech-enhanced learning environments. Conversely, the study found that negative perceptions of social networks are associated with negative emotions, which diminish students' academic engagement. These results highlight the dual role of social networks in shaping both emotional experiences and learning outcomes in modern educational settings.

Miladi, F., Psyché, V., Diattara, A., EL Mawas, N., & Lemire, D. (2025). **Conception et évaluation d'un agent conversationnel enrichi par la génération augmentée par récupération : effet sur l'acquisition des connaissances des personnes apprenantes,**

l'utilisabilité perçue et l'expérience d'interaction. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-08
L'intelligence artificielle (IA) a considérablement évolué ces dernières années, notamment avec l'apparition des grands modèles de langage (LLM), tels que les modèles de la famille des transformeurs génératifs préentraînés (generative pre-trained transformer [GPT]). Ces modèles, capables de générer du texte fluide et contextuel, montrent un potentiel prometteur pour transformer divers secteurs, y compris l'éducation. Cependant, leur application en contexte éducatif présente certaines limites, notamment les « hallucinations », ou génération d'informations incorrectes, qui peuvent nuire à l'expérience d'apprentissage des personnes apprenantes. Pour atténuer ces limitations, la génération augmentée par récupération (RAG) a été intégrée aux modèles de langage. Cette approche associe les capacités des LLM à une récupération d'informations issues d'une base de connaissances préconstruite, alimentée par des documents appropriés, afin d'améliorer la précision, la pertinence et la fiabilité des réponses générées. Toutefois, l'application des modèles de langage enrichis par la RAG dans des contextes éducatifs, notamment les MOOC, demeure peu étudiée, en particulier quant à leur influence sur l'acquisition des connaissances et l'expérience d'interaction des personnes apprenantes. Nous avons conçu et développé un agent conversationnel, alimenté par GPT-4 et enrichi par la RAG, offrant un soutien en temps réel et contextuellement pertinent aux personnes apprenantes dans le cadre d'un MOOC. Cet agent est capable d'accompagner les personnes apprenantes dans la clarification de concepts complexes tout en les guidant tout au long de leur parcours d'apprentissage. Notre agent conversationnel a été évalué auprès de 25 personnes apprenantes inscrites à un MOOC. L'analyse des résultats a révélé une amélioration significative de l'acquisition des connaissances dans le groupe expérimental par rapport au groupe contrôle. De plus, l'agent conversationnel a obtenu un score élevé sur l'échelle d'utilisabilité du système (SUS), indiquant une perception positive de son utilisabilité. Les entretiens semi-structurés ont mis en évidence une expérience d'interaction globalement favorable avec l'agent. Ces résultats soulignent le potentiel des agents conversationnels dotés d'IA générative et enrichis par la RAG pour améliorer l'apprentissage dans les environnements d'apprentissage en ligne, y compris les MOOC. Ils ouvrent également la voie à des recherches futures sur leur rôle en tant que compagnons d'apprentissage.

Moreno, M., Grewal, K., Cutumisu, M., & Harley, J. M. (2025). **Employing Machine Learning to Predict Medical Trainees' Psychophysiological Responses and Self- and Socially-Shared Regulated Learning Strategies While Completing Medical Simulations**. *Educational Psychology Review*, *37*(3), 70. https://doi.org/10.1007/s10648-025-10044-0
Medical simulations allow medical trainees to work within teams to develop their self-regulated learning (SRL) and socially shared regulated learning (SSRL) skills. These skills are imperative in optimizing performance and teamwork and could be reflected in physiological responses given by learners. This study examines how medical trainees' self-regulatory patterns can predict their psychophysiological responses, specifically their electrodermal activity (EDA), by employing supervised machine learning (ML). Sixty-two (N = 62) medical residents at a Canadian university participated in this study. Participants were grouped into 19 teams, with each completing one medical simulation with an appointed "leader" and "team members." Simulations were part of medical residents' curriculum and used high-fidelity manikins capable of mimicking physiological activity as "patients." Audio-video recordings of each simulation were coded for (1) behaviors

(posture and gestures, facial expressions, and vocalics) and (2) regulation strategies, including SRL and SSRL, derived and adapted from the literature to fit a medical context. Psychophysiological measurement of EDA was collected using Empatica E4 bracelets throughout the simulations. Raters coded the regulatory interactions between the "leader" and "team member" at the "beginning," "escalation," and "peak" of each simulation. Results indicated that varying SRL and SSRL codes could predict EDA based on the regulatory needs of learners at different segments of the simulation. These findings contribute to the literature on applying ML modeling to predict psychophysiological responses of learners and to furthering our understanding of the use of predictive modeling within multimodal data in naturalistic learning environments.

Mushtaq, N., Nazeer, N., Fayaz, I., & Gulzar, F. (2025). **Next-Gen Learning: Gamifications impact on higher education**. *Education and Information Technologies*, *30*(11), 15691-15717. https://doi.org/10.1007/s10639-025-13431-w
This study aims to provide a comprehensive bibliometric analysis of gamification research in higher education from 2015-2024, highlighting key trends, influential contributors, and emerging themes. It seeks to address gaps in understanding the intellectual structure, global collaboration networks, and integration of advanced technologies in gamified education. A bibliometric approach was employed using data from 310 peer-reviewed publications indexed in the Web of Science database from 2015 to 2024. The analysis, was conducted using Biblioshiny, that involved evaluating publication trends, citation patterns, co-citation networks, keyword co-occurrence, and thematic clusters to uncover insights into the evolution and impact of gamification research. The findings reveal a significant growth in gamification research, with an annual increase of 20.61% in scholarly output. Prominent themes include motivation, engagement, and the integration of gamification with digital platforms and advanced technologies such as artificial intelligence. Influential contributors, key journals, and global collaboration patterns are identified, with regions like Europe and North America emerging as major hubs. Emerging areas, such as gamification's role in hybrid learning and its application in resource-constrained environments, underscore its adaptability and potential for innovation. This study is one of the few comprehensive bibliometric analyses of gamification in higher education, offering a systematic understanding of the field's development. By addressing gaps in thematic exploration, global collaboration, and technological integration, it provides valuable insights for researchers, educators, and policymakers to advance the application of gamification in diverse educational contexts.

Nguyen, A., Huynh, L., Dang, B., Pohjolainen, S., Mattila, J., Paajala, I. J., … Karppinen, P. (2025). **Conceptualizing and enhancing metaverse literacy for education**. *Education and Information Technologies*, *30*(12), 17133-17153. https://doi.org/10.1007/s10639-025-13486-9
The metaverse has gained considerable attention and enormous investments in recent years and is increasingly recognized as a critical domain for future interactions and communications. Despite its growing importance, there is a notable lack of research on metaverse literacy, especially in education and training. This study aims to conceptualize "metaverse literacy for education" by defining its core components and proposing a framework for its evaluation. Furthermore, we report a case study leveraging an experiential learning approach to explore how exposure to various digital platforms - Virtual Reality (VR) headsets, mobile phones, and personal computers (PC) - influences

metaverse literacy and perceptions regarding its adoption. The case study engaged first-year bachelor-level students (N = 30) enrolled in an undergraduate program. Our findings reveal that learning experience with the metaverse significantly shifts students' perceptions about the effort needed for adoption and enhances their metaverse literacy for education. By focusing on these dimensions, this study makes a contribution to the understanding of metaverse literacy for education, advocating for an experiential approach to learning and adaptation in digital environments.

OECD. (2025a). ***Empowering the Workforce in the Context of a Skills-First Approach***. https://doi.org/10.1787/345b6528-en

OECD. (2025b). ***OECD Skills Strategy Thailand: Assessment and Recommendations***. https://doi.org/10.1787/153a1fe6-en

Pan, F., Zhao, L., & Cao, E. Y. (2025). **Revisiting factors influencing strategies for enhancing pre-service teachers' digital competencies**. *Education and Information Technologies*, *30*(11), 15361-15397. https://doi.org/10.1007/s10639-025-13416-9
The boost in the competitiveness of the teaching workforce largely hinges on the marked improvement of pre-service teachers' digital competencies. Nevertheless, there is currently a dearth of specific research exploring the relationship between prospective teachers' acceptance of technological innovation and the organizational innovation climate in conjunction with digital competencies. This research aims to bridge this gap by investigating the influential factors of strategies for enhancing digital competencies among pre-service teachers. This study delves into these competencies and their influencing factors by utilizing the SQD-6D stratagem model, a tool designed to assess six specific teaching strategies. The data were collected from 516 Chinese pre-service teachers and analyzed using partial least squares structural equation modeling (PLS-SEM). Model comparative analysis supported by five distinct models revealed compelling evidence. It was found that embracing technological innovations and fostering an innovative organizational climate are pivotal in bolstering pre-service teachers' digital proficiency. Furthermore, these two elements not only individually impact pre-service teachers' digital competences but also act as mutual mediators. This novelty framework offers valuable insights into comprehending complex dynamics associated with nurturing digital competency while providing actionable guidance for teacher educators.

Pandya, S. P. (2025). **Blended pedagogies in practice-based courses in undergraduate education: Exploring academic motivation, student self-regulation, and metacognition**. *International Journal of Educational Research*, *133*, 102655. https://doi.org/10.1016/j.ijer.2025.102655
Blended learning requires different proficiencies from learners and there is limited evidence on blended learning for undergraduate students specifically in practice-based courses. Within the personalised learning frame in virtual academic environments, journal writing and mindfulness interventions are gaining prominence. This study examines the impact of mindfulness sessions on learner motivation, self-regulation, and metacognition of undergraduate students from select practice-based courses (social work, nursing, engineering, architecture, fine arts) in select South Asian cities, compared to journal writing, both delivered online. Mindfulness sessions were more impactful and participants' gender, year of study, family configuration, apprenticeship engagements, and program compliance were significant predictors. Female students, in advanced or final years of

their studies, belonging to single-parent families, not doing apprenticeship alongside study, showing prudent compliance with mindfulness sessions and completing higher number of corresponding homework sessions, gained most. Mindfulness sessions could be incorporated in undergraduate practice-based courses, and their blended learning curricula in particular, to improve learner motivation, self-regulation, and metacognition. Emphasis would need to be laid on intervention compliance and some modifications would be needed for male students, students in their early years of undergraduate study, cohabiting with both parents and siblings, and doing apprenticeship alongside study.

Park, H. Y., & Moon, H. (2025). **Parenting in Academia: Unequal Pathways to Collaboration for Doctoral Students in South Korea**. *Higher Education Quarterly*, *79*(3), e70041. https://doi.org/10.1111/hequ.70041
This study explores the challenges faced by parenting doctoral students, focusing on their research collaboration experiences, collaborative competency, and barriers to develop collaborative competency in comparison to their non-parenting counterparts. The research employs data collected through an online survey of doctoral students at a leading research university in South Korea in 2024. The results reveal that female parenting students report lower participation in international collaborations and face greater barriers in developing global competencies compared to male and non-parenting students. However, parenting students, particularly females, exhibit higher levels of self-perceived collaborative skills and attitudes. Notably, these differences are more pronounced in non-STEM fields, with no significant sex or parenting effects observed in STEM fields. The study highlights the need for higher education institutions to ensure that research collaboration opportunities are equally accessible to all students regardless of parenting status, sex, or discipline. The findings are timely given the global concern over declining fertility rates and their potential impact on the academia.

Pereda Loriente, Á., González-Calero, J. A., Tirado-Olivares, S., & del Olmo-Muñoz, J. (2025). **Enhancing mathematics performance in primary education: The impact of personalized learning on fractions and decimal numbers**. *Education and Information Technologies*, *30*(11), 15961-15991. https://doi.org/10.1007/s10639-025-13428-5
The use of technology and tools that enable the automation of personalized learning systems has become increasingly relevant and has attracted substantial attention in the field of research. Under this premise, the present study examines the potential of using personalized instructional sequences with activities in the Moodle learning management system on the learning of fractions and decimal numbers among 5th-grade primary school students. A total of 73 students participated in the study. This quantitative-experimental study was implemented over six sessions, in which the experimental and control groups completed personalized and non-personalized sequences of activities, respectively, on their assigned laptops at school. The results revealed significant improvement in both groups in the areas of fractions and decimal numbers. Additionally, when comparing the types of instruction, noteworthy differences were observed in favor of personalized instruction for fractions, but not for decimal numbers.

Pregoner, J. D. (2025). **Macro Skills and Communicative Competence of Senior High School Students**. *IMCC Journal of Science*, *5*(1), 25-32. Consulté à l'adresse https://hal.science/hal-05205572
This study examined the proficiency levels in macro skills and communicative competence among senior high school students in selected public schools in Davao City,

Philippines, and analyzed the relationship between these constructs. It also identified challenges in developing macro skills and applying communicative competence in academic and real-world contexts. An explanatory sequential mixed methods design was employed, involving 200 students in the quantitative phase and 10 purposively selected participants in the qualitative phase. Quantitative data were collected using a validated performance-based assessment, while qualitative insights were obtained through semistructured interviews. Results indicated low proficiency in both macro skills and communicative competence, with a strong, statistically significant positive correlation between the two. Thematic analysis revealed six barriers to macro skill development-limited exposure to authentic language use, fear of errors and judgment, insufficient external learning support, grade-focused rather than communicationfocused instruction, absence of individualized feedback, and digital distractions. Six challenges in communicative competence application were also identified-speaking anxiety, limited vocabulary and retrieval issues, difficulty adapting language to context, weaknesses in active listening and turn-taking, code-switching interference, and lack of real-world practice. The findings highlight the need for pedagogical interventions that create authentic communication opportunities and address emotional, cognitive, and contextual barriers to language acquisition. Future studies should assess targeted strategies to enhance both macro skills and communicative competence in senior high school learners.

Putra, Z. H., Sumadinata, H., Witri, G., Barokah, R. G. S., Gunawan, Y., Dahnlisyah, & Mohd. Jamil, Mohd. R. (2025). **The effect of gender, high school major, admission process, and year of study towards pre-service elementary teachers' computational thinking skills**. *Education and Information Technologies*, *30*(11), 15871-15889. https://doi.org/10.1007/s10639-025-13429-4
Computational thinking, a critical cognitive process from computer science, has gained prominent role in various academic domains, particularly mathematics. It involves problem decomposition, pattern recognition, algorithmic thinking, and abstraction. While previous studies have extensively explored computational thinking at the primary and secondary education levels, there is a noticeable gap in studies focused on pre-service teachers. This study seeks to bridge that gap by analyzing the computational thinking skills of pre-service elementary teachers in Riau, Indonesia. The research employs a quantitative approach, utilizing non-parametric tests to examine the influence of different variables, including gender, high school major, admission process, and year of study. A sample of 244 pre-service elementary teachers from the Elementary Teacher Education at a Public University in Riau, Indonesia, participated in the study, with data collected through a validated test comprising 22 questions based on computational thinking frameworks. The findings reveal significant differences in computational thinking skills based on the admission process and high school major. However, no significant differences were evident concerning gender and academic cohorts. These results provide valuable insights into the program to support pre-service elementary teachers' computational thinking through curriculum development in this area.

Ruth, A., Brewis, A., Beresford, M., & Stojanowski, C. M. (2025). **Research supervisors and undergraduate students' perceived gains from undergraduate research experiences in the social sciences**. *International Journal of Inclusive Education*, *29*(10), 1669-1686. https://doi.org/10.1080/13603116.2023.2288642

Undergraduate research experiences (UREs) enhance student retention, provide transferrable skills, and prepare students for advanced graduate study. The majority of these benefits, however, are concentrated within the natural and biological sciences; disciplines with historical under-representation of non-male students. If offered in the social sciences, UREs would be more accessible to women, students of colour, and first-generation students. But there are relatively few models and little research to confirm that UREs in the social sciences offer similar benefits to students. Using mixed methods data, we compare students' (n = 122) and research supervisors' (n = 56) perceptions of success in meeting learning outcomes for students participating in social science UREs. The combination of quantitative and qualitative survey data shows that students gain skills in research (e.g. data collection, management, and analysis) as well as other transferrable skills helpful in various career paths (e.g. collaboration, time management, problem-solving). We also demonstrate that faculty supervisors perceive significant benefits from overseeing UREs, such as enhancing professional development and increased job satisfaction. These findings demonstrate the need for expanding UREs beyond the biological/natural sciences where they have been focused to date.

Safitri, D., Zubaidah, S., Gofur, A., & Lestari, S. R. (2024). **Academic Level and Gender-based Mapping of High School Student's Genetic Literacy: A Cross Sectional Study in Indonesia**. *Uniciencia*, *38*(1), 1-26. https://doi.org/10.15359/ru.38-1.9
[Objective] Genetic literacy relates to knowledge and skills in utilizing genetic principles for solving various problems or issues related to genetics. Genetic literacy is an essential ability for students to master, as it is related to various current issues, especially in the fields of health and agriculture. However, research on genetic literacy has not been properly developed from different perspectives, including those related to academic level and gender. Therefore, to fill this gap, the present research seeks to measure the genetic literacy of Indonesian high school students in relation to their academic level and gender. [Methodology] Data were collected using an analytic observational cross-sectional study. The research participants were 1102 students from 55 senior high schools in Indonesia. The participants took a test, which had been evaluated for validity and reliability. The data was then analyzed using ANOVA, and the participants' genetic literacy levels were categorized as adequate or inadequate. [Results]. The study showed that students' genetic literacy was relatively inadequate. While academic level was significantly related to students' genetic literacy, gender was not. [Conclusions] The results of this study indicate that the academic level has a significant effect on the level of students' genetic literacy, while gender does not. The findings support the conclusion that genetic literacy needs to be considered in education, and that it is necessary that teachers and schools design appropriate strategies to empower and increase students' genetic literacy in high school settings.

Shi, W., & Shakibaei, G. (2025). **Insights Into the Effectiveness of Artificial Intelligence-Integrated Speaking Instruction in Enhancing Speaking Skills and Social–Emotional Competence as Well as Reducing Demotivation and Shyness**. *European Journal of Education*, *60*(3), e70174. https://doi.org/10.1111/ejed.70174
Despite the recognised importance of communicative competence in language acquisition, many English as a Foreign Language (EFL) learners persistently grapple with affective barriers such as speaking anxiety, shyness, and demotivation, alongside underdeveloped social–emotional competence (SEC), challenges that traditional speaking instruction methods have often struggled to comprehensively address.

Consequently, this study aimed to investigate the influence of Artificial Intelligence (AI)-integrated speaking instruction on EFL learners' SEC, demotivation to speak, shyness, and speaking skill development, thereby addressing a crucial gap by evaluating a novel technological intervention. To achieve this, a quasi-experimental design was employed, allocating participants into an experimental group (EG) receiving AI-integrated speaking instruction and a control group (CG) engaging in traditional speaking instruction via the Big Blue Button platform; pre- and post-intervention data were collected using validated questionnaires for SEC, demotivation, shyness, and speaking development, supplemented by an attitude questionnaire for the EG. The results from a one-way MANOVA revealed statistically significant and positive outcomes for the AI-integrated approach, with learners in the EG demonstrating substantial improvements in their SEC and overall speaking skills, alongside a significant reduction in demotivation to speak and shyness when compared to the CG, a finding corroborated by the EG participants' predominantly positive attitudes towards the AI intervention. These findings carry important implications for EFL pedagogy, suggesting that AI-integrated speaking instruction presents a more efficacious strategy for concurrently enhancing learners' speaking proficiency and fostering crucial social–emotional skills, thus providing empirical support for integrating AI tools to create more supportive and effective pathways for EFL students to overcome affective hurdles and improve their communicative abilities.

Snowling, M. J., & Hulme, C. (2025). **Risk Factors for Dyslexia: Addressing Oral Language Deficits**. *Mind, Brain, and Education*, *19*(3), 168-175. https://doi.org/10.1111/mbe.70009
Studies of children at high risk of dyslexia demonstrate that oral language difficulties are a major risk factor for poor reading and that children who enter school with poor language are likely to struggle to become proficient readers. We review findings of studies of oral language intervention against a backdrop of research showing that language skills are the foundation for learning to read. Language screening to identify at-risk children, followed by language intervention delivered as a "pull-out" program, can improve oral language skills with positive effects on later reading and behavior in school as rated by teachers. The fidelity of delivery of such programs depends upon educators receiving appropriate training and support during delivery.

Sugiarto, E., Husain, A. H., & Rohidi, T. R. (2025). **How Is Interdisciplinary Study in Arts Education Conducted? Epistemological Reflections Towards Postgraduate Students' Research**. *European Journal of Education*, *60*(3), e70183. https://doi.org/10.1111/ejed.70183
This article investigates the profound impact of epistemological reflections on arts education research within postgraduate programmes at Universitas Negeri Semarang, Indonesia's leading institution in arts education. Recognising the unique ontological nature of arts education, the study emphasises the need for flexible research methods. Through qualitative analysis of doctoral and master's theses, the research uncovers key epistemological discourses, including subjectivity, interpretation and values in knowledge creation. Findings highlight the importance of a paradigmatic shift towards cross-disciplinary dialogue in arts education research. The study identifies the challenge of merging traditional scientific frameworks with the inclusive and multidimensional nature of art. Consequently, it proposes implications for postgraduate arts education programmes, advocating for methodological expansion, interdisciplinary inclusion and the development of responsive evaluation models. This research underscores the

epistemological diversity within arts education research, ultimately benefiting student research development at the master's and doctoral levels.

Sun, Z., Pang, M., & Zhang, Y. (2025). **Exploring learning preferences evolution influence factors: A non-mutually exclusive 3-state cellular automata analysis model**. *Education and Information Technologies*, *30*(12), 17049-17077. https://doi.org/10.1007/s10639-025-13345-7
The evolution of individual and global learning preferences is influenced by correlation factors. This study introduces a novel evolutionary modeling approach to observe and analyze factors that affect the evolution of learning preferences. The influencing factors considered in this study are closely interwoven with the underlying personality of the students, individual traits, learning partners and interactions. This paper proposed non-mutually exclusive 3-state cellular automata evolution model that improves on previous approaches to study the evolution of learned preferences by overcoming the limitations of data acquisition through self-reported measurements or behavioral observations in a controlled environment. The experimental data is a large sample generated from the initial seed by the synthetic minority over-sampling technique (SMOTE) method. The seeds were derived from survey responses provided by 38 participants. The results demonstrate the varying degrees of influence of factors such as membership ratio, group size, membership distribution, and learning environment on the process and outcome of group preference evolution. The findings provide valuable insights into understanding how learning preferences evolve and how educators adapt to the learning environment. Furthermore, educators meeting the diverse learning preferences of students, that is, education that adapts to the dynamic demands of students, echoes the current educational trends of personalization and AI-driven learning.

Sunday, A. O., Agbo, F. J., Suhonen, J., Jormanainen, I., & Tukiainen, M. (2025). **Co-designing to develop computational thinking skills in Nigeria K-12 using scratch**. *Education and Information Technologies*, *30*(11), 14925-14965. https://doi.org/10.1007/s10639-025-13386-y
The need to integrate the teaching and learning of computational thinking (CT) in K-12 education has been on the rise since it was identified as a skill for solving 21st-century problems. The co-design pedagogical approach has shown great potential in promoting effective communication of CT to both university and K-12 students with the support of different educational tools in different contexts. To ensure Nigerian secondary school (K-12) students develop CT skills, a four-day co-design CT activities workshop was organized. Co-design pedagogy and constructivism theory were deployed in this study with students co-designing COVID-19 disease spread game for learning CT. A mixed method was adopted to investigate student's interest, attitudes, understanding of CT, and their learning experience from implementing CT-based prototype using Scratch. This study recruited 40 students from two different secondary schools in Nigeria as participants. The result revealed that student's interest in learning CT was aroused through the use of co-design pedagogy and Scratch ($\mu = 4.55$, $\sigma = 0.815$). Similarly, students attitude toward CT after the intervention study shows positive ($\mu = 4.50$, $\sigma = 0.716$). This study paved way for student's skills development in teamwork and collaborative learning, communication, idea sharing, personal skill development, game design, and understanding of programming. This study instigates thinking ideation, inspires the application of CT concepts in daily life activities, and improves problem-solving skills. This study promotes and advocates for the application of co-design pedagogy to foster the teaching and

learning of CT in a Nigerian context. This study contributes to knowledge by promoting the use of Scratch as a tool for co-designing in learning CT, proposing a four-phase co-design application flow for the integration of co-design pedagogy with Scratch for learning CT in the Nigerian K-12 context and suggesting ways to implement the teaching and learning of CT in K-12 education.

Tang, Y., Wang, Q., Shan, H., & Shi, B. (2025). **A Longitudinal Study on the Relationship Between Mental Well-Being and Creative Ability Among Graduate Students**. *Journal of Happiness Studies*, *26*(6), 106. https://doi.org/10.1007/s10902-025-00943-y
The graduate studies stage involves balancing mental well-being and creative demands. However, the relationship between mental well-being and creative ability in graduate students remains a contentious issue, particularly with respect to whether this relationship is linear or nonlinear. This study explored the relationship between mental well-being and creative ability through a longitudinal survey of 1,059 graduate students (Mage = 24.81, 81.6% female) at 15-month intervals via cross-lagged analysis, segmented regression analysis and latent profile analysis. The findings were as follows: (1) graduate students' mental well-being at Time 1 (T1) positively predicted their creative ability at Time 2 (T2), whereas creative ability at T1 did not predict their mental well-being at T2; (2) a breakpoint between graduate students' mental well-being at T1 and creative ability at T2 was found at -0.87 SD, below which mental well-being at T1 significantly positively predicted creative ability at T2 and above which mental well-being at T1 did not significantly predict creative ability at T2; and (3) the three mental well-being subgroups at T1 (excellent, moderate, and challenged subgroups) were significantly different in their creative ability at T2. Specifically, the moderate and excellent mental well-being subgroups demonstrated significantly greater creative ability than the challenged mental well-being subgroups did. However, creative ability did not differ significantly between the moderate and excellent mental well-being subgroups. In conclusion, mental well-being may be a necessary but not sufficient condition for creative ability. These findings offer useful insights into supporting graduate student development.

Tarantino, G., Makopoulou, K., & Neville, R. D. (2025). **Teachers' attitudes towards inclusion in physical education: systematic review and meta-analysis of studies conducted before and after the Salamanca Statement**. *International Journal of Inclusive Education*, *29*(10), 1637-1651. https://doi.org/10.1080/13603116.2023.2287465
The case for inclusion of students with disabilities and special educational needs (SEND) in mainstream physical education (PE) classes has increased over the last four decades. This is because PE has been consistently reported as a key whole-child context for promoting the inclusion of SEND students; though, research still shows that teachers' attitudes are still proximal factors constraining the inclusion of achievement of inclusion goals. This study aims to quantitatively investigate the association between macro-level policy intervention, the Salamanca Statement, and teachers' attitudes. A systematic search of the literature was conducted in April 2022, and 2,120 records were retrieved. Sixteen articles that surveyed teachers' attitudes using validated instruments were included in the meta-analysis. Results showed that the cross-study means for teachers' attitudes in studies published after the Salamanca Statement were more positive than the corresponding means from studies published before the publication of the Salamanca Statement. The findings provided in this study are also framed within the context of micro-and macro-level change, and implications for future research and practices are further discussed.

Varis, S., Tolvanen, A., Metsäpelto, R.-L., & Poikkeus, A.-M. (2025). **Student selection into initial teacher education in Finland: Predicting performance on the university entrance exam (VAKAVA) based on logical reasoning ability**. *International Journal of Educational Research*, *133*, 102745. https://doi.org/10.1016/j.ijer.2025.102745
This study examines the association between applicants' success in the 2021 university entrance exam for initial teacher education in Finland, known as the VAKAVA exam, and their logical reasoning abilities to provide evidence of criterion-related validity. The data consists of applicants' scores on the VAKAVA exam, which reflect their cognitive processing skills, and the abbreviated International Cognitive Ability Resource test (ICAR16; N = 403). The ICAR16 is a short multiple-choice assessment including four scales that estimate the cognitive skills of fluid reasoning and visual-spatial reasoning. The findings supported the proposed four-factor structure of the ICAR16 in the examined sample. However, the second-order factor, which was interpreted to encompass general logical reasoning ability measured by the ICAR16, was used in further statistical analysis. The results indicated that ITE applicants' logical reasoning abilities accounted for approximately 29% of their performance on the VAKAVA exam. These findings contribute to the literature on the validity of measures for student selection in teacher education programs.

Wang, F., Zeng, L. M., & King, R. B. (2025). **Socioeconomic gaps in socio-emotional skills across cultures: The role of school-based interpersonal relationships**. *Social Psychology of Education*, *28*(1), 146. https://doi.org/10.1007/s11218-025-10100-1
Socioeconomic gaps in academic achievement have been widely documented. However, whether and to what extent these socioeconomic gaps extend to the domain of socio-emotional skills is still relatively underexplored. Furthermore, limited research has examined the potential mechanisms that might help explain this relationship. To address these gaps, this study investigated socioeconomic gaps in socio-emotional skills and whether school-based interpersonal relationships may help explain their association. The participants were 31,187 10-year-old and 29,798 15-year-old students from ten cities across nine countries. The Big Five framework, which organizes skills into five broad domains and more specific facets was used to classify socio-emotional skills. The results of multilevel structural equation modeling indicated that socioeconomic gaps were present in eight out of the 15 socio-emotional skills more specifically, we found socioeconomic gaps in persistence, emotional control, empathy, trust, tolerance, creativity, sociability, and assertiveness. However, we did not find gaps in self-control, responsibility, stress resistance, optimism, cooperation, curiosity, and energy. At a broader level, there seem to be more differences in the domains of collaboration and social engagement compared to emotion regulation and task performance. Empathy, trust, sociability, and assertiveness showed the strongest disparities among students from different economic strata. School-based interpersonal relationships partly explained these gaps. Students from more advantaged families experienced more positive school-based interpersonal relationships, which in turn, facilitated higher socio-emotional skills. The theoretical and practical implications are discussed.

Wang, H., Wang, C., Chen, Z., Liu, F., Bao, C., & Xu, X. (2025). **Impact of AI-agent-supported collaborative learning on the learning outcomes of University programming courses**. *Education and Information Technologies*, *30*(12), 17717-17749. https://doi.org/10.1007/s10639-025-13487-8

With the rapid development of artificial intelligence technology in the field of education, AI-Agents have shown tremendous potential in collaborative learning. However, traditional Computer-Supported Collaborative Learning (CSCL) methods still have limitations in addressing the unique demands of programming education. This study proposes an innovative AI-Agent-supported Collaborative Learning (AI-CL) approach, aimed at enhancing students' programming learning experience and effectiveness through intelligent assistance from AI-Agents. The research developed an AI-Agent system based on large language models and employed a quasi-experimental design to investigate the effects of the AI-CL method on students' learning achievement, self-efficacy, cognitive load, and learning interest. The experiment was conducted at a university in Shanghai, recruiting 45 undergraduate students who were randomly assigned to the AI-CL experimental group (n = 24) and the CSCL control group (n = 21). The experimental context was set in an ACM programming competition teaching environment, lasting for 6 weeks with 70-min sessions each week. Results showed that the AI-CL group significantly outperformed the CSCL group in learning achievement, self-efficacy, and learning interest. Regarding cognitive load, the AI-CL group demonstrated significantly lower mental effort compared to the CSCL group, while there was no significant difference in mental load. These findings not only provide new theoretical perspectives for the application of cognitive load theory and self-efficacy theory in AI-assisted learning environments but also offer strong practical guidance for higher education institutions to introduce AI-Agent-assisted collaborative learning models in programming courses.

Wang, P., & Liu, Y. (2025). **The Role of Technophilia, Positive Experience and Flow in Enhancing Learning Efficiency in AI-Based Music Education: A Self-Determination Theory Approach**. *European Journal of Education*, *60*(3), e70200. https://doi.org/10.1111/ejed.70200
Artificial Intelligence (AI) is transforming music education by providing adaptive learning tools and personalised feedback. However, existing research has primarily focused on technological outcomes, with limited attention to the affective and motivational processes that drive effective AI-assisted music learning. This study aims to examine how technophilia and positive experience influence flow and perceived learning efficiency in AI-based music education. A quantitative survey of 941 music major students was conducted, and Structural Equation Modelling (SEM) was used to test a conceptual model grounded in Self-Determination Theory. The results indicate that both technophilia and positive experience significantly enhance flow and learning efficiency, with flow also serving as a key mediator. These findings underscore the importance of addressing psychological and emotional factors when designing AI-driven music learning environments. This study contributes to the literature by highlighting how learner-centred, emotionally supportive design can foster deeper engagement and improved learning outcomes in AI-supported creative education.

Wang, S., & Wang, Y. (2025). **Language Attitude and GenAI Attitude of Struggling EFL Learners: A Moderated Mediation Model of Enjoyment and Anxiety**. *European Journal of Education*, *60*(3), e70172. https://doi.org/10.1111/ejed.70172
Cognitive and affective factors play crucial roles in shaping learners' attitudes towards generative artificial intelligence (GenAI). However, the synergistic influence of language attitude and emotions, including foreign language enjoyment (FLE) and foreign language classroom anxiety (FLCA) on struggling EFL learners' GenAI attitudes remains

underexplored. To bridge this research gap, the present study develops a moderated mediation model using partial least-squares structural equation modelling (PLS-SEM), based on data collected from 294 struggling EFL learners in China and analysed through SmartPLS software. The findings indicate that FLE mediates the relationship between language attitude and GenAI attitude. Additionally, FLCA moderates both the effect of FLE on GenAI attitude and the direct relationship between language attitude and GenAI attitude. On the basis of these findings, pedagogical implications are discussed to help instructors support struggling EFL learners in developing a more positive attitude towards GenAI.

Wang, X. (2025). **Integration of AI GPTs in music education and their impact on students' perception and creativity**. *Education and Information Technologies*, *30*(13), 18879-18893. https://doi.org/10.1007/s10639-025-13531-7
The study aims to investigate the impact of ChatGPT on music education by evaluating creativity and perception indicators resulting from AI integration. The research is based on analyzing the effect of AI (ChatGPT) integrated into music education. To this end, a method for implementing the program in piano teaching sessions was developed, grounded in theoretical principles of creativity development according to flow theory, divergent and convergent thinking. The study involved 566 students from a music conservatory. Creativity was assessed using two forms of the Torrance Tests of Creative Thinking (TTCT). At the beginning of the pre-test, both groups demonstrated uniform levels of creativity within the music education process. Analysis of creativity revealed a significant increase in creative skills within the AI-intervention group ($p = 0.000$). Considering the aim to more precisely determine the impact of recommendation algorithms on queries based on theoretical concepts of creativity development, a correlation was established between the frequency of application of the proposed query approaches and the dynamics of creativity between the pre- and post-tests ($r = 0.001$). The results indicate notable improvements in creativity within the experimental group; the difference between the control and experimental groups increased to 23.1849, with the experimental group showing a mean of 67.311. Key concerns among students relate to the precise tuning of question-answer algorithms and the training required for effective use of technology for academic and creative development.

Wang, Y., & Kale, U. (2025). **Unplugged activities to support preservice teachers' competence, interest, and utility value on computational thinking: A mixed-method inquiry**. *Education and Information Technologies*, *30*(13), 19075-19109. https://doi.org/10.1007/s10639-025-13552-2
Computational thinking (CT) has been increasingly recognized as a vital skill for fostering students' problem-solving and digital literacy. Preparing and motivating preservice teachers (PSTs) to effectively teach CT is, therefore, essential. Grounded in expectancy-value theory, this mixed methods research explored the impact of a workshop using unplugged activities on PSTs' ($N = 39$) motivation on CT during a science methods course. The analysis of the responses to the survey items revealed significant improvements in PSTs' competence and interest. The follow-up interviews highlighted that, due to the unplugged activities, PSTs were able to reduce stress, enhance their understanding, and connect CT to daily life, which increased their competence and interest in teaching CT. These findings extend the application of expectancy-value theory by demonstrating how unplugged activities can positively influence PSTs' motivation to teach CT. The study

underscores the importance of incorporating accessible, hands-on activities into teacher preparation programs to support PSTs in advancing CT education in classrooms.

Wu, S.-Y., & Su, Y.-S. (2025). **The effect of learning computational thinking skills through educational board games on students' cognitive styles, cognitive behaviors, and learning effectiveness**. *Asia Pacific Education Review*, *26*(3), 655-668. https://doi.org/10.1007/s12564-024-10031-0
Education on computational thinking skills has been a focus in many countries. Previous studies have investigated educational board games based on computational thinking skills. However, there is a lack of research on the cognitive behaviors and cognitive styles promoted by these educational board games. Therefore, in this study, educational board games are adopted as a tool to explore the learning effectiveness and behavioral patterns of students with different cognitive styles. A total of 74 students participated in this study, and the educational board game used was a set of coding poker cards. The results showed that educational board games contribute to students' computational thinking skills, especially regarding operators. For students with different cognitive styles, holist-style students experience greater learning effectiveness when using educational board games than serialist-style students. In addition, it is found that students need to analyze the choices and arrangements of cards while playing educational board games, which improves their thinking in terms of problem solving. Furthermore, through cognitive behaviors, students can use the concepts of computational thinking skills and then achieve the learning goals of computational thinking skills. Finally, suggestions for teaching and future research are proposed based on the results of this study.

Xiao, J., Yang, Y., & Li, M. (2025). **Empirical study on the feasibility of hybrid-flexible training model for developing teachers' artificial intelligence competence**. *Education and Information Technologies*, *30*(12), 16835-16860. https://doi.org/10.1007/s10639-025-13460-5
Artificial intelligence (AI) education empowers teachers to enhance the educational process. Although conventional face-to-face or fully online training methods each have their strengths, they do not fully address challenges such as the rapid pace of AI advancements, differences in teachers' ability to grasp AI knowledge, and the need for flexible scheduling. The hybrid-flexible (HyFlex) teaching approach integrates the benefits of both methods and offers new possibilities for AI training for teachers. However, in-depth research on the practical impacts and implementation pathways for this model in AI teacher training is limited. To address this gap, we explored three key questions: (1) how to implement HyFlex in AI teacher training; (2) teachers' engagement and satisfaction in AI training and the corresponding learning outcomes; and (3) how engagement influences teachers' satisfaction and AI competence. Specifically, we developed a HyFlex teacher training model aimed at enhancing teachers' AI competence and evaluated its effectiveness in a practical application. The results indicate that (1) The flexibility of HyFlex resulted in higher teacher engagement in the AI course training process, contributing to higher learning outcomes and higher teacher attitudes towards the HyFlex model. (2) The flexibility of learning styles and times in HyFlex implementation and the reusability of AI learning materials help to accommodate teachers from different educational backgrounds. (3) Emotional engagement significantly influences training satisfaction and AI competence in AI teacher training. This study provides valuable insights for future practical applications in AI teacher training and the dissemination of the HyFlex model.

Yakubu, M. N., David, N., & Abubakar, N. H. (2025). **Students' behavioural intention to use content generative AI for learning and research: A UTAUT theoretical perspective**. *Education and Information Technologies*, *30*(13), 17969-17994. https://doi.org/10.1007/s10639-025-13441-8
Generative Artificial Intelligence tools have the potential to impact students learning significantly and positively in several ways. However, the factors responsible for student's behavioural intentions to use these tools are still not fully understood, especially in the context of Nigerian higher education institutions (HEIs). To support students use of Content Generative - Artificial Intelligence (CG-AI) tools for learning and research purposes, it is important that HEI administrators and policy makers understand these factors. Therefore, the purpose of this study is to examine the factors that influence Nigerian students' behavioural intentions to use CG-AI tools for learning and research. Based on structural equation modelling technique, this study uses the unified theory of acceptance and use of technology (UTAUT) to examine the relationship between six constructs and students' behavioural intentions to use CG-AI. Employing a paper-based survey, responses from 289 students in the Department of Computer Science were obtained from a State University in northern Nigeria. A two-step approach (Confirmatory Factor Analysis and Path Analysis) was used to analyse the relationships between both observed and latent variables. The findings showed that three of the factors, performance expectancy ($a = 0.551$, $p < 0.001$), effort expectancy ($a = 0.466$, $p < 0.001$), and social influence ($a = 0.507$, $p < 0.001$) were observed to be determinants of behavioural intentions to use CG-AI tools. Facilitating conditions, perceived risks, and attitude towards technology, on the other hand, showed no significant impact on students' behavioural intention to use CG-AI tools.

Yang, J., Chen, Y., & Wang, Y. (2025). **Exploring the Interplay of Motivation, Engagement and Critical Thinking Among EFL Learners: Evidence From Structural Equation Modelling**. *European Journal of Education*, *60*(3), e70187. https://doi.org/10.1111/ejed.70187
Critical thinking (CT) is widely recognised as a core competency in 21st-century higher education, particularly within English as a Foreign Language (EFL) learning contexts. This study examines the extent to which motivation and engagement contribute to the development of CT skills among Chinese EFL university students. A sample of 626 undergraduates from multiple provinces completed validated instruments measuring motivation, academic engagement and CT dispositions. Structural Equation Modelling (SEM) was employed to explore the interrelations among these constructs. The findings show that motivation predicts both engagement and CT, and that CT is positively associated with engagement, indicating a reciprocal relationship. These findings highlight the interdependent roles of affective and cognitive factors in promoting higher-order thinking. The study offers pedagogical implications for language educators, curriculum designers and policymakers aiming to foster autonomous, critically-minded learners in EFL environments.

Yang, Y. (2025). **AI-supported L2 vocabulary acquisition–a systematic review from 2015 to 2023**. *Education and Information Technologies*, *30*(13), 17995-18029. https://doi.org/10.1007/s10639-025-13417-8
Vocabulary acquisition is crucial for language learning, yet learners face substantial challenges in memorizing extensive vocabulary. Numerous studies suggest Artificial Intelligence (AI)-based technologies could significantly improve vocabulary acquisition

among K-12 learners. Therefore, instructors or teachers must be fully informed of the advantages and disadvantages when integrating different AI apps or programs. The present study provided a systematic review of 30 empirical studies focusing on the use of AI for vocabulary acquisition. Some key findings include: (1) AI-supported L2 vocabulary acquisition (AISVA) research has gained rapid growth over the last decade, with a clear upward trend; (2) Despite AISVA's broad interest across 28 journals, the field shows fragmentation and lacks a unified theoretical framework; (3) The top three most cited in AISVA predominantly employed quantitative methods, concentrate on cognitive learning dimensions with rather innovative theoretical frameworks, and unique research topics; (4) Research methods primarily integrated both qualitative and quantitative approaches, leaning towards a preference for quantitative methodologies, and mainly involved primary and college students; (5) A substantial portion of AISVA applications manifests their roles as "Intelligent Tutors" while the category of "Data-driven Optimizer" has received relatively less attention in research endeavors; (6) Studies emphasize cognitive and affective aspects, with AR and VR emerging as prevalent technologies that are frequently enhanced by AI integration to support vocabulary acquisition. Suggestions and implications for teaching practitioners, language learners, and software engineers were discussed.

Yavuz Temel, G., Barenthien, J., & Padubrin, T. (2025). **Using Jupyter Notebooks as digital assessment tools: An empirical examination of student teachers' attitudes and skills towards digital assessment**. *Education and Information Technologies*, *30*(13), 18621-18650. https://doi.org/10.1007/s10639-025-13507-7
The integration of different technologies for formative assessment activities into the classroom is very important for the effectiveness of learning and teaching processes. This study is an experimental study in which the student teachers designed jupyter notebooks as formative assessment activities for specified aims and subject contents. For this purpose, student teachers were enabled to design various formative assessment activities with various packages that were developed with the open-access programming languages included in the jupyter notebooks and external applications that were integrated into the jupyter notebooks. We measured the differences in student teachers' self-efficacy beliefs and attitudes towards the design of jupyter notebooks for formative activities before and after the implementation with questionnaires. According to the results of the study, we found positive and statistically significant differences in the self-efficacy beliefs and attitudes of student teachers from various disciplines who participated in the seminar. During the practical activities, we observed student teachers' prejudices and concerns about programming. This process was accompanied by their lack of prior knowledge and prejudices about the open source programming. Despite the difficulties in the learning process, the student teachers designed and developed various jupyter notebooks for different formative assessment activities at the end of the semester.

Zagni, B., Van Ryzin, M., Ianes, D., & Scrimin, S. (2025). **Advancing Social and Emotional Skills Through Tech-Supported Cooperative Learning in Primary and Middle Schools**. *European Journal of Education*, *60*(3), e70166. https://doi.org/10.1111/ejed.70166
Social and Emotional Skills (SES) are key to students' academic and personal development. This study explores the effectiveness of a technology-supported Cooperative Learning (CL) intervention in promoting SES among primary and middle school students in Italy. A quasi-experimental design was used, involving 36 classes

randomly assigned to either the intervention or a waitlist control group. Teachers in the intervention received training on CL and SES instruction, delivering structured lessons within cooperative activities. SES development—measured through emotional knowledge, social awareness, and relationship skills—was assessed at the beginning and end of the school year using a validated self-report tool. Results from linear mixed-effects models indicated greater SES improvement in the intervention group. The findings suggest that integrating SES instruction within technology-supported CL environments enhances SES outcomes and offers a scalable model for schools. This approach holds promise for educators and policymakers aiming to embed social–emotional learning into everyday classroom practice.

Zhou, Y., & Yu, S. (2025). **Understanding the Hidden Curriculum in Second Language Writing Classrooms: Learning Beyond Writing**. *European Journal of Education*, *60*(3), e70164. https://doi.org/10.1111/ejed.70164
While the existing scholarship on second language (L2) education has increasingly recognised the educational mission of teaching languages, there is a gap in understanding how students encounter a broader spectrum of values and beliefs in naturalistic L2 writing classrooms, as opposed to the predetermined values often found in language textbooks. This study seeks to uncover the hidden curriculum in two writing classes by examining the values, beliefs and principles that are implicitly conveyed through the formal writing curriculum. It explores the potential forms of hidden curriculum and students' experiences with it. Data were collected over 12 weeks through classroom observations, teaching materials, student interviews, informal chats, reflective journals and writing tasks. Guided by language socialisation theory, the qualitative analysis revealed a range of writing-related and social hidden curricula, such as learning to write through reading and fostering courage and persistence. The study also found that student responses to these hidden curricula varied significantly, from consistent acceptance to strong resistance. This study contributes to the value education mission in language teaching by shedding light on the diverse values and beliefs encountered in naturalistic writing classrooms and the spectrum of student reactions to these values.

Zhu, Y., Liu, Q., & Zhao, L. (2025). **Exploring the impact of generative artificial intelligence on students' learning outcomes: a meta-analysis**. *Education and Information Technologies*, *30*(11), 16211-16239. https://doi.org/10.1007/s10639-025-13420-z
Generative artificial intelligence (GAI) has brought new ideas for optimizing students' learning. Despite increasing attention on the effects of GAI on learning outcomes (LO), research results are inconsistent. While GAI's educational benefits are qualitatively described, there is substantial debate about its actual impact on students' LO. The study sought to quantify GAI's impact on students' LO, evaluating its overall and average effects, and examining four key moderating factors: functional types of GAI, educational levels, intervention duration, and knowledge domains. Based on the screening criteria, 26 empirical studies were selected from 5,887 peer-reviewed papers. Two researchers collaboratively completed the literature screening and coding process. The research employed a meta-analytic method to calculate the impact of GAI on learners' LO, and examined four moderating factors. GAI exerts a significant but small overall effect on students' LO ($g = 0.392$), with varying impacts on physical ($g = 0.701$), social-emotional ($g = 0.347$), and intellectual ($g = 0.372$) outcomes. The changes of GAI's functional types have no significant effect on LO, but three other moderating factors do, showing significant statistical differences. GAI more significantly impacts primary school students,

especially in supporting their intellectual and social-emotional outcomes. Longer interventions have a greater effect on LO than short ones, particularly intellectual and physical outcomes. GAI's effects vary across knowledge domains, possibly due to its adaptability in different subjects. Long-term GAI in higher education boosts intellectual and physical outcomes, especially in education and humanities and arts, while short-term use in primary education enhances social-emotional outcomes. Integrating diverse learning components and adjusting GAI implementation parameters can optimize its effectiveness in terms of enhancing LO across different levels of education.

Zhu, Z., Ren, Y., & Shen, A. ran. (2025). **Exploring the acceptance of generative artificial intelligence-assisted learning and design creation among students in art design specialties: based on the extended TAM model**. *Education and Information Technologies*, *30*(13), 18651-18678. https://doi.org/10.1007/s10639-025-13551-3
Current educational trends leverage artificial intelligence (AI) to provide high-quality teaching and enhance students' learning competitiveness. This study aimed to evaluate the acceptance of artificial intelligence generated content (AIGC) for assisted learning and design creation among art and design students. Based on an extended technology acceptance model (ETAM), this study explored how external variables influence perceived usefulness (PU) and perceived ease of use (PEOU), which in turn affect attitude towards use (ATT) and behavioral intention (BI). Data were collected from 382 students via a questionnaire survey and analyzed using a structural equation model. The results confirmed 12 out of the 14 hypotheses. Among them, facility condition (FC), output quality (OQ), task-technology fit (TTF), and hedonic motivation (HM) positively influenced PU and PEOU, whereas AI anxiety (AIA) negatively affected PU and PEOU. ATT had a significant positive effect on BI. This study provides theoretical support and practical insights for promoting AIGC applications, advancing sustainable education, and optimizing user engagement.

Aspects économiques de l'éducation

Adukia, A., Feigenberg, B., & Momeni, F. (2025). **From Retributive to Restorative: An Alternative Approach to Justice in Schools**. *American Economic Review*, *115*(8), 2722-2754. https://doi.org/10.1257/aer.20230971
School districts historically approached conflict resolution from the perspective that suspending disruptive students was necessary to protect their classmates, even if this caused harm to perceived offenders. Restorative practices (RP)—focusing on reparation, accountability, and shared ownership of disciplinary justice—are designed to address undesirable behavior without harming students. We study Chicago Public Schools' adoption of RP and find that suspensions and arrests decreased, driven by effects for Black students. We find null effects on test score value added, ruling out meaningful average declines. We estimate a 15 percent decrease in out-of-school arrests, consistent with RP substantively changing student behavior.

Andrabi, T., Das, J., Khwaja, A., & Ozyurt, S. (2025). ***Helping Schools Survive: Experimental Evidence on the Impact of Financial and Educational Support to Private Schools*** (Working paper N° 34042). Consulté à l'adresse National Bureau of Economic Research, Inc website: https://EconPapers.repec.org/RePEc:nbr:nberwo:34042
Low-cost private schools have increased educational access in low-income countries, but frequent school closures lead to costly disruptions in children's schooling. We provide

experimental evidence from Pakistan that both school loans and educational products and services (EPS) are (a) commercially viable products and (b) substantially and similarly improve school survival rates. Moreover, loans decrease closure rates more for schools with larger initial enrollments and lower baseline test scores, while EPS show no such differential impact. These results demonstrate how financial and educational input constraints can significantly affect school survival while underscoring that the fungibility of entrepreneurial support matters.

Antman, F. M., Skoy, E., & Flores, N. E. (2025). ***Can Better Information Reduce College Gender Gaps? The Impact of Relative Grade Signals on Academic Outcomes for Students in Introductory Economics*** (Working paper N° 18001). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp18001
This paper considers the impacts of grades and information on gender gaps in college major and college dropout rates at a large public flagship university. Observational and experimental results suggest women are more responsive to introductory economics grades when deciding whether to major in economics while men are more responsive to introductory economics grades when deciding whether to drop out of college. Providing better information about grade distributions appears to only somewhat mitigate these impacts. These results suggest better information may blunt the impact of relative grade sensitivities on college gender gaps but may not fully outweigh the saliency of grades. Finally, we consider the extent to which aligning economics grading standards with those of competing disciplines would reduce the gender gap in economics graduates but find relatively limited impacts.

Araki, S. (2025). **Cross-national variation in the skills trap: illuminating the heterogeneous economic returns to high cognitive skills**. *European Sociological Review*, *41*(3), 343-362. https://doi.org/10.1093/esr/jcae048
Research argues possessing high skills is crucial for economic success. While such arguments are often evidenced by the average skills effect, we know little about its heterogeneity. From a comparative perspective, this article examines the heterogeneous effects of cognitive skills on earnings using the standardized dataset for Britain, the Czech Republic, France, Korea, Norway, and the United States. Propensity score (PS) matching analysis first shows skills generally contribute to higher earnings. However, the effect size varies across PS strata, including the negative selection trend with low-PS groups (i.e. individuals who are least likely to acquire high skills) gaining more from such traits (Norway); U-shaped patterns with mid-PS being penalized (Britain and USA); homogeneous effects (Czech Republic); and their mixtures (France and Korea). Subpopulation PS models further reveal these heterogeneities comprise unequal returns across gender and parental education in a way that either intensifies or mitigates existing social inequalities. The results suggest (i) the 'skills trap' operates in structurally devaluing high skills among certain groups of people whilst rewarding others; and (ii) this trap works variously across societies in accordance with their socio-economic and educational systems. Methodologically, these findings also underscore the importance of investigating effect heterogeneity across both composite PS and its components.

Backes, A., & Kovač, D. (2025). ***Neighbor effects on human capital accumulation through college major choices*** (Working paper N° 10/2025). https://doi.org/10.18717/dpf3jd-xk39
Using the universe of high school and college admissions data in Croatia, we geocoded nearly half a million students' residential addresses to investigate how their college and

major choices are influenced by older neighbors and peers. Using an RDD to exploit time and program variation in admission cutoffs, we find that having an older neighbor who was admitted to and enrolled in a program increases a student's probability of applying to the program by about 20%. We find that this effect consistently holds only for the closest neighbors, both in terms of distance and age difference. Female students are more likely to be influenced by older neighbors' choices, and male older neighbors' admission has a larger impact on both male and female students compared to female older neighbors. The effect is stronger if the student-neighbor pair lives in a region that does not have its own university, implying that the value of information in rural areas is higher. We find evidence that students don't follow their older neighbors to less competitive programs; instead, they are more likely to apply for the same programs their older neighbors were admitted to when the program is more prestigious. Next, we utilize the variation in weight scheme of Croatia's college study programs to show evidence, beyond college choices, of how older neighbors affect the human capital formation of their younger peers. The main channel through which we observe this effect is during high school, through specialization in the subjects needed to gain admittance to older neighbors' college programs. These findings shed light on the intricate dynamics shaping educational decisions and underscores the significant role older neighbors play in guiding younger peers toward specific academic pathways.

Baumeister, F., Hanushek, E. A., & Woessmann, L. (2025). ***Out-of-School Learning: Subtitling vs. Dubbing and the Acquisition of Foreign-Language Skills*** (Working paper N° 17991). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp17991
The development of English-language skills, a near necessity in today's global economy, is heavily influenced by historical national decisions about whether to subtitle or dub TV content. While prior studies of language acquisition have focused on schools, we show the overwhelming influence of out-of-school learning. We identify the causal effect of subtitling in a difference-in-differences specification that compares English to math skills in European countries that do and do not use subtitles. We find a large positive effect of subtitling on English-language skills of over one standard deviation. The effect is robust to accounting for linguistic similarity, economic incentives to learn English, and cultural protectiveness. Consistent with oral TV transmission, the effect is larger for listening and speaking skills than for reading.

Baumeister, F., Hanushek, E. A., Woessmann, L., & Baumeister, C. (2025). ***Out-of-School Learning: Subtitling vs. Dubbing and the Acquisition of Foreign-Language Skills*** (Working paper N° 11981). Consulté à l'adresse CESifo website: https://EconPapers.repec.org/RePEc:ces:ceswps:_11981
The development of English-language skills, a near necessity in today's global economy, is heavily influenced by historical national decisions about whether to subtitle or dub TV content. While prior studies of language acquisition have focused on schools, we show the overwhelming influence of out-of-school learning. We identify the causal effect of subtitling in a difference-in-differences specification that compares English to math skills in European countries that do and do not use subtitles. We find a large positive effect of subtitling on English-language skills of over one standard deviation. The effect is robust to accounting for linguistic similarity, economic incentives to learn English, and cultural protectiveness. Consistent with oral TV transmission, the effect is larger for listening and speaking skills than for reading.

Beaupère, N., & Collet, X. (2025). **D'un campus à l'autre, interroger les vulnérabilités des étudiants**. *Revue française des affaires sociales*, *252*(2), 93-112. https://doi.org/10.3917/rfas.252.0093
Cet article s'intéresse aux conditions de vie et d'études des étudiants inscrits dans différentes formations de l'enseignement supérieur sous le prisme des vulnérabilités. S'il mobilise un indicateur pour objectiver et mesurer ces situations, il vise surtout à mettre en lumière les effets de contexte, selon le lieu d'inscription des étudiants : antennes universitaires de ville moyenne ou universités de métropole. Les premières se distinguent a priori des secondes, car elles ont notamment pour mission de favoriser l'accès à l'enseignement supérieur des néobacheliers dans une perspective de proximité géographique. L'analyse des données tend à montrer que les lieux d'études n'influent pas sur la probabilité de vulnérabilités, mais les étudiants les plus vulnérables présentent des caractéristiques communes. Celles-ci relèvent bien souvent de l'autonomisation, choisie ou contrainte, qui implique des ressources dont les étudiants sont diversement dotés et rappellent les inégalités peu compensées par les aides sociales.

Bedasso, B., & Acosta, A. M. (2025). **The Cost of a School Meal: Longitudinal Evidence on Spending, Nutritional Quality, and Economies of Scale from 216 Programs**. *Working Paper Center for Flobal Development*, (723), 1-34. Consulté à l'adresse https://www.cgdev.org/publication/cost-school-meal-longitudinal-evidence-spending-nutritional-quality-and-economies-scale
School meals have proven effective in improving child outcomes, particularly in low-income settings. Yet concerns about funding adequacy and cost efficiency remain. This paper analyzes data from three waves of the Global Child Nutrition Foundation (GCNF) survey (2018–2023), covering 216 programs from 102 countries to document cost patterns and scaling dynamics. Additionally, we examine how cost per child varies with implementation models, sourcing strategies, and targeting approaches. We report five main findings. First, majority of the programs, especially in low-income and large-scale settings, are underfunded relative to the cost of a healthy meal. Second, school meal programs in lower-income countries tend to offer less diverse meals, and adjusting for nutritional diversity reveals that achieving comparable dietary quality would significantly raise their per-child costs. These adjustments are especially relevant for disadvantaged children, who face the greatest risk of nutrient deficiency and would benefit most from more diverse meals. Third, local food sourcing is associated with more cost-efficient implementation—after accounting for dietary diversity—while on-site meal preparation is linked to higher costs among better-resourced programs. Fourth, programs that target recipients individually tend to be cheaper, but only for higher-income countries. Finally, despite offering less diverse meals, programs in lower-income countries exhibit greater economies of scale—expanding coverage faster relative to cost increases.

Beuermann, D., Bonilla, A. R., & Stampini, M. (2025). **Conditional Cash Transfers, School Progression and Academic Achievement in Jamaica**. *IDB Publications*. https://doi.org/10.18235/0013606
Covering the full population of applicants to the Jamaican Conditional Cash Transfer Program (PATH), we explore whether receiving PATH during childhood causally affects school progression and academic performance at the primary, secondary and tertiary levels. To uncover causal associations, we exploit exogenous variation arising from the PATH eligibility criteria within a regression discontinuity design. We find that for both, boys

and girls, PATH significantly increases the likelihood of completing primary and secondary school. Furthermore, among boys, PATH increased the likelihood of pursuing tertiary studies. However, conditional on primary school completion, PATH had no effects on academic performance at any educational level.

Beuermann, D., Ramos Bonilla, A., & Stampini, M. (2025). ***Conditional Cash Transfers, School Progression and Academic Achievement in Jamaica*** (Working paper N° 14174). https://doi.org/10.18235/0013606
Covering the full population of applicants to the Jamaican Conditional Cash Transfer Program (PATH), we explore whether receiving PATH during childhood causally affects school progression and academic performance at the primary, secondary and tertiary levels. To uncover causal associations, we exploit exogenous variation arising from the PATH eligibility criteria within a regression discontinuity design. We find that for both, boys and girls, PATH significantly increases the likelihood of completing primary and secondary school. Furthermore, among boys, PATH increased the likelihood of pursuing tertiary studies. However, conditional on primary school completion, PATH had no effects on academic performance at any educational level.

Bratsberg, B., Rogeberg, O., & Terviö, M. (2025). **Steeper at the top: cognitive ability and earnings in Finland and Norway**. *European Sociological Review*, *41*(3), 329-342. https://doi.org/10.1093/esr/jcae020
We document a convex relationship between earnings rank and cognitive ability for men in Finland and Norway using administrative data on over 350,000 men in each country: the top earnings percentile score on average 1 standard deviation higher than median earners, while median earners score about 0.5 standard deviation higher than the bottom percentile of earners. Top earners also have substantially less variation in cognitive test scores. While some high-scoring men are observed to have very low earnings, the lowest cognitive scores are almost absent among the top earners. Overall, the joint distribution of earnings rank and ability is very similar in Finland and Norway. We find that the slope of the ability curve across earnings ranks is steepest in the upper tail, as is the slope of the earnings curve across cognitive ability. The steep slope of the ability curve across the top earnings percentiles differs markedly from the flat or declining slope recently reported for Sweden.

Chevalier, T. (2025). **Être étudiant augmente-t-il le risque de précarité ?** *Revue française des affaires sociales*, *252*(2), 35-55. https://doi.org/10.3917/rfas.252.0035
La précarité est un phénomène d'ampleur dans la population étudiante. Pourtant, les étudiants représentent une partie de la population dont on sait non seulement qu'ils viennent de milieux plus favorisés que le reste de la population, mais qu'ils accéderont aussi à des emplois mieux rémunérés. Comment donc caractériser la situation des étudiants en termes de précarité en comparaison avec les autres jeunes ? Nous montrons que la précarité des étudiants est à double face car il faut la resituer dans le temps et le cours de vie des individus. D'un côté, à court terme, les étudiants peuvent en effet subir des conditions de vie dégradées, si on les compare à d'autres jeunes. De l'autre, à plus long terme, ils investissent dans leur capital humain et, par conséquent, ont une projection dans le futur plutôt positive en termes de précarité. Autrement dit, s'ils souffrent de précarité aujourd'hui, ils savent que c'est pour en sortir demain. Répondre à la question de l'effet de la poursuite d'études sur la précarité étudiante dépend donc du moment dont on parle : aujourd'hui ou demain ? Nous mobilisons les données du

Baromètre d'opinion de la Drees pour renseigner cette double face de la précarité étudiante.

Crawfurd, L. (2025). ***The Economic Returns to Foundational Literacy and Numeracy: Evidence from Indonesia***. Consulté à l'adresse https://www.cgdev.org/publication/economic-returns-foundational-literacy-and-numeracy-evidence-indonesia
Despite rapid increases in access to school in low- and middle-income countries, learning outcomes remain extremely poor. This has led to calls for a new policy focus on ensuring foundational literacy and numeracy skills. Yet we have little direct, causal evidence on the long-term effects of investing in foundational skills in the early years of school.

Emeka, E. T., & Asongu, S. A. (2025). **Research Productivity and Africa's Productive Capacity: The Moderating Role of Government Education Expenditure**. *Higher Education Quarterly*, *79*(3), e70039. https://doi.org/10.1111/hequ.70039
This study provides empirical insights into the impact of research productivity on Africa's productive capacity, contingent upon government education expenditure. Using a panel of 52 African countries from 2010 to 2022, the dynamic system generalised method of moments (GMM) estimation technique was employed as a robust alternative to Pooled OLS. The analysis yielded several key findings. First, the system GMM results emphasise the importance of aligning research and development efforts with educational investments, as the effect of research productivity on productive capacity is influenced by government education expenditure. Second, governance quality, per capita income and industrial value-added emerged as key drivers of productive capacity, while natural resource endowment was found to be a limiting factor. Based on these findings, the study highlights the need for increased government education funding, collaborative research initiatives, professional development for educators, infrastructure investment, public-private partnerships, open data initiatives and technology integration to boost research productivity and enhance Africa's productive capacity. The study discusses how the research can be improved with other non-linear techniques.

Eren, F. C., & Aydın, S. (2025). **Bootstrapping Efficiency in Education: A Multi-Stage DEA Analysis With TIMSS Data**. *European Journal of Education*, *60*(3), e70159. https://doi.org/10.1111/ejed.70159
Ineffective use of resources and suboptimal management at the school level can detrimentally affect human resource development and labour market outcomes. Therefore, efficiently managing human and physical resources is crucial to transforming school inputs into improved educational outcomes. This study assesses the effectiveness of educational systems worldwide and explores the extent and implications of resource and human management inefficiencies at an international level. It focuses specifically on the portion of the TIMSS exam administered to 4th graders. The objective is to uncover gaps in contextual factors that influence learning and identify areas of inefficiency. The study employs non-parametric bootstrap data envelopment analysis to calculate relative efficiency scores for different countries. Countries that utilise educational inputs in mathematics and science most effectively include Denmark, Germany and Hungary. These regions operate near optimal levels, nearly maximising input utilisation to produce the expected educational outputs. Conversely, Montenegro, the United Arab Emirates and Bosnia-Herzegovina are the least efficient. Further analysis using Tobit regression in

the second stage of the study suggests that resource utilisation and management significantly impact the input–focused efficiency of schools in various countries. The findings reveal that the schools' inefficiencies arise from a lack of mathematics and science education resources and poor management and utilisation.

Eschenbacher, J., Falkenreck, C., & Wagner, R. (2025). **Echoes of Dissatisfaction: The Dual Impact of Student EWOM on University Image and Brand Congruence**. *Higher Education Quarterly*, *79*(3), e70045. https://doi.org/10.1111/hequ.70045
This study explores the influence of student-generated electronic word-of-mouth (eWOM) on university image within the context of an increasingly competitive higher education landscape. Drawing on social identity and congruence theories, we examine how both satisfied and dissatisfied students' positive and negative eWOM influences the higher education institution's brand perception. The study reveals that dissatisfied students demonstrate social creativity. Despite their dissatisfaction, they spread positive eWOM, which further increases their self-brand incongruity. Student (dis)satisfaction has a significant impact on the detrimental effect of students' negative eWOM on the educational institution's brand image. Students' (dis)satisfaction also moderates the influence of commitment on self-brand incongruity. It is imperative for educational administrators to foster a strong relationship between students and their institution, as high levels of commitment can mitigate the perceived incongruence of dissatisfied students and enhance the institution's image. The study's insights highlight the strategic value of managing eWOM for policymakers and administrators in higher education.

Fan, X., & Qin, H. (2025). **Differential Effects of Research Funding Types on Academic Career Achievements**. *European Journal of Education*, *60*(3), e70194. https://doi.org/10.1111/ejed.70194
Amid growing reliance on performance-based governance in global higher education, research funding plays a critical role in shaping academic trajectories. This study investigates the differential effects of project-based and talent-related funding on scholarly achievements in China, drawing on Bourdieu's theory of capital. Using a dataset of 17,134 SCI-indexed publications and funding records from E University, we employed stepwise regression models to assess the impact of funding types on research output, collaboration, promotion, talent titles, and technological awards. Findings reveal that project-based funding primarily boosts research productivity and publication quality, strengthening cultural capital. Conversely, talent-related funding is more strongly associated with academic mobility, broader collaboration networks, and institutional recognition, key indicators of social and symbolic capital. For instance, talent fund recipients were 34.2% more likely to be promoted to professorship and 56.9% more likely to secure national talent titles. These results demonstrate how funding schemes act as mechanisms for stratifying academic opportunity, rather than just financial instruments. This study offers critical insights into designing funding policies that foster more balanced and inclusive academic development across diverse higher education systems.

Gajderowicz, T., & Jakubowski, M. (2025). **Poland: Education During and After COVID-19 Pandemic and Educational Reforms**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 121-133). https://doi.org/10.1007/978-3-031-69284-0_9
The COVID-19 closures lasted at least 26 weeks in Poland, longer than in most EU countries. The Polish government's response revealed inadequacies in planning and

execution. Evidence from international and national studies shows that the related achievement decline is equivalent to at least one year of education and probably more immense for some students. We calculate that the lower estimate of the achievement decline is associated with reduced GDP growth by 0.35% points. The estimated wage loss per student over a 45-year working life sums up to an economic loss of 7.2% of Poland's 2021 GDP.

Getik, D., & Meier, A. N. (2025). **The Long-Run Effects of Peer Gender on Occupational Sorting and the Wage Gap**. *American Economic Journal: Economic Policy*, *17*(3), 35-70. https://doi.org/10.1257/pol.20230251
The Long-Run Effects of Peer Gender on Occupational Sorting and the Wage Gap by Demid Getik and Armando N. Meier. Published in volume 17, issue 3, pages 35-70 of American Economic Journal: Economic Policy, August 2025, Abstract: We study the impact of the early gender environment on inequality in th...

Giunti, S., Guariso, A., Mendola, M., & Solmone, I. (2025). ***Hacking Anti-Immigration Attitudes and Stereotypes: A Field Experiment in Italian High Schools*** (Working paper N° 17978). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp17978
In advanced economies, increasing population diversity often fuels hostile attitudes toward immigrants and political polarization. We study a short educational program for high-school students aimed at promoting cultural diversity and improving attitudes toward immigration through active learning. To identify the impact of the program, we designed a randomized controlled trial involving 4,500 students from 252 classes across 40 schools in northern Italy. The program led to more positive attitudes and behaviors toward immigrants, especially in more mixed classes. In terms of mechanisms, the intervention reduced students' misperception and changed their perceived norms toward immigration, while it had no impact on implicit bias, empathy, or social contacts. Our findings suggest that anti-immigrant attitudes are primarily driven by sociotropic concerns rather than individual intergroup experience, and that educational programs combining critical thinking with cross-group discussion can correct them.

Global Education Monitoring Report Team & Education Cannot Wait. (2025). ***Funding for education in crises: data in distress***. https://doi.org/10.54676/IJCC6635
Grenet, J., & Landais, C. (2025). **Éducation : comment mieux orienter la dépense publique**. *Les notes du conseil d'analyse économique*, (84), Mai 2025. Consulté à l'adresse https://cae-eco.fr/static/pdf/cae084-education-250514.pdf
Avec près de 180 milliards d'euros engagés en 2022, l'éducation constitue l'un des premiers postes de dépense publique en France. Pourtant, les résultats du système éducatif demeurent en retrait au regard de cet effort financier : les performances des élèves, en particulier en mathématiques, se dégradent, et les inégalités sociales sont parmi les plus marquées de l'OCDE. À ce constat s'ajoute une baisse durable des effectifs scolaires liée au choc démographique, ouvrant une opportunité inédite pour repenser l'usage des moyens alloués à l'éducation. Cette Note propose une lecture de la dépense publique d'éducation à travers le prisme d'un nouvel indicateur, l'indice d'efficacité de la dépense publique (EDP), qui mesure le rendement social net de chaque euro investi. Loin de se substituer à la délibération démocratique, cet outil vise à éclairer les choix budgétaires en comparant différentes politiques éducatives selon leur coût et leurs effets sur le bien-être des bénéficiaires.

Hanushek, E. A., Kang, L., Li, X., & Zhang, L. (2025). ***From Rural Schools to City Factories: Assessing the Quality of Chinese Rural Schools*** (Working paper Nº 12017). Consulté à l'adresse CESifo website: https://EconPapers.repec.org/RePEc:ces:ceswps:_12017
The changing pattern of quality in China's rural schools across time and province is extracted from the differential labor market earnings of rural migrant workers. Variations in rates of return to years of schooling across migrant workers working in the same urban labor market but having different sites of basic education provide for direct estimation of provincial school quality. Corroborating this approach, these school quality estimates prove to be highly correlated with provincial cognitive skill test scores for the same demographic group. Returns to quality increase with economic development level of destination cities. Importantly, quality appears higher and provincial variation appears lower for younger cohorts, indicating at least partial effectiveness of more recent policies aimed at improving rural school quality across provinces. Surprisingly, however, provincial variations in quality are uncorrelated with teacher-student ratio or per student spending.

Hanushek, E., Kang, L., Li, X., & Zhang, L. (2025). ***From Rural Schools to City Factories: Assessing the Quality of Chinese Rural Schools*** (Working paper Nº 34005). Consulté à l'adresse National Bureau of Economic Research, Inc website: https://EconPapers.repec.org/RePEc:nbr:nberwo:34005
The changing pattern of quality in China's rural schools across time and province is extracted from the differential labor market earnings of rural migrant workers. Variations in rates of return to years of schooling across migrant workers working in the same urban labor market but having different sites of basic education provide for direct estimation of provincial school quality. Corroborating this approach, these school quality estimates prove to be highly correlated with provincial cognitive skill test scores for the same demographic group. Returns to quality increase with economic development level of destination cities. Importantly, quality appears higher and provincial variation appears lower for younger cohorts, indicating at least partial effectiveness of more recent policies aimed at improving rural school quality across provinces. Surprisingly, however, provincial variations in quality are uncorrelated with teacher-student ratio or per student spending.

Ibourk, A., & Elmakhloufi, K. (2025). **La mosquée au service des objectifs économiques des programmes d'alphabétisation des adultes au Maroc**. *International Review of Education*, *71*(4), 591-603. https://doi.org/10.1007/s11159-025-10135-8
The mosque at the service of the economic objectives of adult literacy programmes in Morocco – In Morocco, in addition to their religious missions, mosques play a role in adult education and training, thereby promoting the integration of adult learners. This article develops an economic index to assess this integration. It uses ad hoc data collected by monitoring a cohort of 351 learners over five and a half years. Promising results show significant progress in this area, with 18.87% of women achieving their economic goals. The study identifies three dimensions to this integration. The first is linked to the internal and external environmental context of the learning operation. The second is linked to the learners' socio-demographic and economic characteristics. The third is linked to the socio-demographic characteristics of the supervisors. This study is limited by the lack of assessment of the reading and writing skills of neo-literates. A target of sixty correct words per minute is recommended as an objective measure of these skills.

Klein, T., & McNamara, S. (2025). ***Sorting, status, and shadow education: How track placement shapes parental investment*** (Working paper N° 25-023). Consulté à l'adresse ZEW - Leibniz Centre for European Economic Research website: https://EconPapers.repec.org/RePEc:zbw:zewdip:319893
Educational tracking-separating students into tracks or schools by ability-is commonplace, but access and preferences for top programs often depend on socioeconomic status (SES), reinforcing inequality. We study shadow education in the context of an early-tracking system, exploiting score cut-offs using a pseudo-regression discontinuity design to isolate the causal effect on parental investments. We find that assignment to the highest track disproportionately increases private tutoring among families in the lowest tercile of SES. This suggests tracking activates a behavioral response among disadvantaged households, which may amplify between-track achievement gaps.

Lee, J., & Suh, H. (2025). **Does Financial Aid Help Low-Income Students Take Dual Enrollment Courses?** *Innovative Higher Education*, *50*(4), 1227-1245. https://doi.org/10.1007/s10755-024-09778-6
For the last two decades, dual enrollment has rapidly grown across the country. Previous studies consistently show that dual enrollment is positively associated with college enrollment, readiness, and persistence. However, descriptive statistics show that low-income students and racial minority students are underrepresented in dual enrollment courses. While the participation gap is well-documented, little is known about policies and practices to improve dual enrollment participation among historically underrepresented students. To fill the gap in the literature, this study explores the role of a statewide financial aid program, the Access College Early (ACE) scholarship in Nebraska, on students' dual enrollment participation. Specifically, this research addresses the following questions: 1) Who received the ACE scholarship? and, 2) Did receiving the ACE scholarship relate to dual enrollment participation? We analyzed statewide data for the 2019 Nebraska high school graduating class with logistic regression and Poisson regression models. Results show that receiving the ACE scholarship is positively associated with dual enrollment participation and the number of dual enrollment courses taken. However, the ACE scholarship is disproportionately distributed to academically high-performing students who attend relatively wealthier high schools with better teacher resources.

Lessky, F., & Binder, D. (2025). **Does Combining Work and Study 'Pay Off'? Investigating Intersectional Effects of Term-Time Employment, First-Generation Status and Gender on Graduate Outcomes**. *Higher Education Quarterly*, *79*(3), e70046. https://doi.org/10.1111/hequ.70046
Despite globally increasing numbers of university students participating in paid employment during their studies, there is limited evidence on whether working during the lecture period (i.e., term-time) is beneficial for graduate outcomes, especially from an intersectional perspective. Using Austrian national administrative data on all university graduates between 2009 and 2018 (N = 90,026), we examine how student employment is associated with graduate outcomes for university graduates taking intersectional effects of 'first-generation status' and 'gender' into account. Our results extend existing research by showing that First-Generation graduate men and women tend to benefit differently from engaging in term-time employment. This accentuates the need for further research in higher education studies investigating graduate outcomes by taking

intersectionality into account. Based on the results of this study, we discuss implications for policy and practice of employability-related activities at higher education institutions.

Li, J., Kobakhidze, M. N., & Tian, R. (2025). **Guanxi Practice Through Sensemaking: An Exploration of Private Tutoring Entrepreneurship in Chongqing, China and Its Policy Implications**. *European Journal of Education*, *60*(3), e70184. https://doi.org/10.1111/ejed.70184
Based on a 16-month qualitative study, this article documents the diverse guanxi practices used by private tutoring entrepreneurs in Chongqing, China. It reveals how these entrepreneurs leverage their social connections to support their businesses. Informed by Karl Weick's theory of organising, we argue that guanxi practices are sensemaking processes that benefit entrepreneurs but may have adverse effects on the education market, policy regulation and education equality. This study contributes to and integrates sensemaking theory, guanxi theory and the literature on shadow education by conceptualising the practice of guanxi in the context of the private tutoring industry as a form of sensemaking. It also informs policymakers seeking to improve the regulation of the shadow education industry.

Martins, P. S., & Ferreira, J. R. (2025). **Effects of individual incentive reforms in the public sector: the case of teachers**. *Public Choice*, *204*(3), 457-481. https://doi.org/10.1007/s11127-024-01256-z
Can incentive schemes deliver value in the public sector, despite major principal-agent challenges? We evaluate a reform that introduced individual teacher performance-related pay and tournaments in public schools in Portugal, despite trade union opposition. We find evidence that the focus on individual performance decreased student achievement (as measured by national exams) and increased grade inflation. The results follow from a difference-in-differences analysis of matched student-school panels and two complementary control groups (including private schools). Students with a higher proportion of teachers exposed to tournaments also perform worse. Overall, our results highlight the social costs of disrupting workers' cooperation, a possible unintended consequence of public-sector tournaments.

Masuku, M. M., Mlambo, V. H., & Ndebele, N. C. (2025). **Utilisation of the National Student Financial Aid Scheme's Learning Material Allowance for Higher Education Students: A Perspective of a South African University**. *Higher Education Quarterly*, *79*(3), e70042. https://doi.org/10.1111/hequ.70042
Public higher education institutions in developing countries have faced a steady increase in student enrolment, driven by historical factors such as the expansion of access to education following the end of apartheid in South Africa and other policies aimed at addressing socio-economic inequalities. This increase, however, has led to challenges in adequately meeting the growing demand for resources and services, often resulting in institutions operating at or beyond their ideal capacity. Coupled with a reduction in state funding, these conditions have uncertained the future of higher education financing. This study examines how university students in South Africa use the book allowance provided by the National Student Financial Aid Scheme (NSFAS). The study employed a survey strategy to collect data from 358 randomly selected university students using a structured questionnaire. The findings revealed that only 19.3% of students used their book allowance to purchase academic textbooks. The study highlighted that external financial pressures, such as family obligations and living expenses, led to the diversion of

funds away from textbooks. Additionally, many students opted to purchase information and communication technology (ICT) devices, reflecting a shift from traditional print media to digital learning materials. All demographic groups, including gender, age and academic faculty, observed this trend. However, the study found that students from lower socio-economic backgrounds were more likely to reallocate their allowances due to greater financial pressures. On the basis of these findings, the study recommends implementing more differentiated funding mechanisms that account for varying poverty levels among students, increasing support for affordable online academic resources, providing targeted financial literacy programmes and improving accountability in using financial aid.

Mirando Montero, J. J., & Contreras, C. (2025). ***Impact of Heat Waves on Learning Outcomes and the Role of Conditional Cash Transfers: Evidence from Peru*** (N° WPS11171; p. 32). Consulté à l'adresse Word Bank website: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099202307142591354
Impact of Heat Waves on Learning Outcomes and the Role of Conditional Cash Transfers : Evidence from Peru (English)

Ndabananiye, J.-C., Deconinck, C., Mbarek, N., & d'Aiglepierre, R. (2025). ***Renouveler les promesses d'efficacité des financements internationaux pour transformer l'éducation***. https://doi.org/10.54673/mvkj4309
Signée il y a vingt ans, la Déclaration de Paris a marqué un tournant dans les efforts internationaux pour améliorer le financement de l'éducation. Des défis majeurs persistent cependant. Cette note d'orientation se penche sur deux décennies d'aide et identifie les obstacles systémiques à un financement efficace. Elle met en lumière les approaches couronnées de succès, s'appuie sur les leçons apprises, et propose des stratégies pour garantir que le financement international soutienne efficacement l'amélioration durable des systèmes éducatifs.

Oliphant & Ma. (2025). **Applying Behavioral Economics to Social Capital to Increase International Enrollment in U.S. Community Colleges**. *Community College Journal of Research and Practice*, *49*(9), 598-614. https://doi.org/10.1080/10668926.2024.2355878
At a time when international student enrollment has been declining at community colleges for more reasons than just the pandemic, this paper attempts to address a gap in the literature to assist community colleges with their enrollment by helping them recruit international students. While there are many suggestions for improving international enrollment numbers, they are often financially costly. Given the budgets of community colleges and how international students choose their post-secondary institutions, community colleges are best able to raise international enrollment by concentrating on improving the campus experience for their current international students. To do so, this paper is the first to apply insights from behavioral economics to see how they might help increase the social capital of international students to boost international enrollment. Outside the classroom, international students may be helped by the college employing behavioral biases such as the availability bias and status quo bias and the heuristic known as the foot-in-the-door to raise their social capital with domestic students and using the information overload and choice overload to increase their social capital with academic counselors. Inside the classroom, faculty members can employ behavioral biases like the

appeal to authority and the in-group bias to help international students increase their social capital with domestic students.

Ortega Perals, P., Cruz Rambaud, S., & Sánchez García, J. (2025). **How macroeconomic factors and educational level impact on the quality of healthcare status: some dynamic panel data evidence from Europe**. *Quality & Quantity*, *59*(3), 2053-2067. https://doi.org/10.1007/s11135-024-02017-2
Healthcare systems have been thoroughly analyzed in recent years all over the world, with an increased interest in health status as an indicator of population well-being. However, the existing relationship between health status and the economic situation is still unknown, and for this reason, many researchers have started looking for factors to ensure a better health system. The aim of this paper is to measure the impact of the quality of care on the health status of European countries by considering macro-financial magnitudes and social determinants. To investigate this connection, the methodology used is a dynamic panel data analysis by employing the Arellano–Bond Generalized Method of Moments estimator. The data used in this study corresponds to twenty countries of the European Union, for the period 2011–2021. The results show that the number of specialists is the variable which mostly affects health status, these results being robust to any specification or economic-social control. With regards to macro-financial magnitudes, healthcare expenditure significantly increases health status, indicating that increasing expenditure has a positive impact on the healthcare system of European countries. Education level also exerts a positive effect on health status which is indeed the most noticeable contribution of the paper. Finally, the results presented in this paper are of particular interest in designing public policies, therefore increasing the efficiency of European healthcare systems.

Pugatch, T., & Schroeder, E. (2025). ***Using RCTs in Economic Education Research*** (Working paper N° 1633). Consulté à l'adresse Global Labor Organization (GLO) website: https://EconPapers.repec.org/RePEc:zbw:glodps:1633
Randomized controlled trials (RCTs) have become an essential tool for economists. The credibility revolution in empirical economics emphasizes research designs that identify casual effects, and random assignment of treatment is seen as the gold standard. Implementation can, however, be a challenge in many applications. The field of economic education is in a unique position to learn from RCTs, given the ability to test interventions in the classroom or at educational institutions. We discuss what is needed to run an RCT effectively in an educational setting, drawing from the experimental literature on topics such as student success in higher education and diversity in undergraduate economics. We additionally outline quasi-experimental approaches that can be used when treatment cannot be randomized.

Reljic, J., Evangelista, R., & Pianta, M. (2025). **Digital technologies, employment, and skills**. *Industrial and Corporate Change*, *34*(3), 385-406. https://doi.org/10.1093/icc/dtab059
This article investigates the relationship between the diffusion of digital technologies, employment, and skills. The empirical analysis is carried out on industry-level data of six major European economies (Germany, France, Spain, Italy, the Netherlands, and the UK) over the 2009–2014 period. We analyze two dimensions of digitalization: industries' consumption of intermediate inputs from digitally intensive sectors and investment in Information and Communication Technology (ICT) tangible and intangible assets, considering also patterns of demand, education, technological change, and offshoring.

The results show that job creation in industries is positively associated with an increasing share of digital goods and services in total intermediate inputs and is negatively linked with processes of ICT capital deepening. We then explore how these two different patterns of digitalization are related to the evolution of four occupational groups—managers, clerks, craft, and Manual workers, defined on the basis of International Standard Classification of Occupations classes—finding a positive link between ICT consumption and managerial jobs, and negative ones between digital variables and mid-skill occupations.

Sabater-Grande, G., Herranz-Zarzoso, N., & García-Gallego, A. (2025). **The Role of Monetary Incentives and Feedback on How Well Students Calibrate Their Academic Performance**. *European Journal of Education*, *60*(3), e70140. https://doi.org/10.1111/ejed.70140
Students' accurate monitoring of their own performance is essential for achieving successful learning processes. In this work, we have aimed at analysing the role played by monetary incentives and by metacognitive feedback in improving students' miscalibration of their academic performance. A randomised field experiment was implemented in which undergraduate students enrolled in an intermediate Microeconomics course were offered the possibility to estimate their academic performance in that course. Global judgements were elicited immediately before (prediction) and immediately after (postdiction) answering each of three multiple choice exam-tests that students covered along the semester. The predictive (postdictive) bias in each test was calculated as the difference between the grade predicted (postdicted) by the student and her actual grade. The experiment has allowed for analysis of sole or joint effects of monetary incentives and metacognitive feedback interventions in calibration accuracy. Predictive as well as postdictive biases have shown to be independent of the treatment variables. Moreover, support has turned up for the Dunning-Kruger effect, in the sense that students' academic record appeared as a positive significant predictor of judgements' accuracy of their own performance. Additional potential covariates like students' cognitive ability, risk attitudes, and personality traits have been found to be non-significant predictors of students' miscalibration. In terms of educational policy, our findings suggest that instructors should carefully weigh up the financial costs of monetarily incentivising students to improve the accuracy of their performance predictions, particularly when such intervention—whether implemented alone or in combination with metacognitive feedback—may not lead to significant improvements in metacognitive accuracy.

Sun, Z., Lim, M. A., & Cockayne, H. (2025). **Reputation Management in a Chinese and UK University: What Do Universities' Self-Representations Through Social Media to Governments and International Students Say About Their Resource Dependence?** *Higher Education Quarterly*, *79*(3), e70040. https://doi.org/10.1111/hequ.70040
This study discusses the relationships between resource dependence, and reputation management (RM) through interviews with university managers regarding the use of social media by Chinese and UK Higher Education Institutions (HEIs). This research enriches existing literature by providing a new and comprehensive understanding of the factors influencing university communication and reputational behaviour through the lens of Resource Dependence Theory (RDT) post COVID-19. The recruitment of international students in the chosen UK and Chinese HEIs is intricately tied to securing resources—but that these resources were valued differently at the case study HEIs. Nineteen interviews

were conducted across the case universities and content analysis was employed to explore the perspectives of university managers. Our findings show that the admission of international students responded to the need to acquire legitimatory (in China) and financial resources (in the UK). These results signal an important difference in how international students, as resources, are perceived by these administrators. This insight explains why the UK and Chinese case universities' use of social media, especially after COVID-19, reflected their dependency on non-diversified (China case) and diversified resources (UK case). This insight is significant for policymakers and university staff who manage international student recruitment and also for the critical debate about students as 'resources'.

Verley, É., Tenret, É., & Trespeuch, M. (2025). **Les statuts d'emploi pendant les études : un miroir inversé des précarités économiques et studieuses**. *Revue française des affaires sociales*, *252*(2), 57-77. https://doi.org/10.3917/rfas.252.0057
Cet article repose sur l'exploitation de l'enquête « Conditions de vie » de l'Observatoire national de la vie étudiante de 2020 et sur des entretiens semi-directifs avec des étudiant·es. Il montre que la prise en compte du statut d'emploi, souvent laissé de côté dans les enquêtes sur le monde étudiant, est pourtant importante pour repérer des situations de précarité. Si le contrat stable (CDI) et le salariat sont traditionnellement associés à une certaine stabilité dans le monde professionnel, ce n'est pas nécessairement le cas dans le monde étudiant : dans l'enseignement supérieur français, caractérisé par des emplois du temps peu flexibles, les contrats salariés sont privilégiés par une population plus dépendante aux revenus des activités rémunérées mais peuvent s'avérer pénalisants, car ils offrent moins de flexibilité et des horaires souvent plus contraignants. L'article isole donc un effet propre des statuts d'emploi sur deux types de précarité : la précarité économique et la précarité studieuse, et montre des usages différenciés des statuts selon le niveau de dépendance économique des éudiant·es.

Vries, D., & Sander. (2025). ***Measuring Family (Dis)Advantage: Lessons from Detailed Parental Information*** (Working paper N° 25-010/V). Consulté à l'adresse Tinbergen Institute website: https://EconPapers.repec.org/RePEc:tin:wpaper:20250010
This paper provides new insights on the importance of family background by linking 1.7 million Dutch childrenâ€™s incomes to an exceptionally rich set of family characteristics â€" including income, wealth, education, occupation, crime, and health. Using a machine learning approach, I show that conventional analyses using parental income only considerably underestimate intergenerational dependence. This underestimation is concentrated at the extremes of the child income distribution, where families are often (dis)advantaged across multiple dimensions. Gender differences in intergenerational dependence are minimal, despite allowing for complex gender-specific patterns. A comparison with adoptees highlights the role of pre-birth factors in driving intergenerational transmission.

Wang, F., Zeng, L. M., & King, R. B. (2025). **Socioeconomic gaps in socio-emotional skills across cultures: The role of school-based interpersonal relationships**. *Social Psychology of Education*, *28*(1), 146. https://doi.org/10.1007/s11218-025-10100-1
Socioeconomic gaps in academic achievement have been widely documented. However, whether and to what extent these socioeconomic gaps extend to the domain of socio-emotional skills is still relatively underexplored. Furthermore, limited research has examined the potential mechanisms that might help explain this relationship. To address

these gaps, this study investigated socioeconomic gaps in socio-emotional skills and whether school-based interpersonal relationships may help explain their association. The participants were 31,187 10-year-old and 29,798 15-year-old students from ten cities across nine countries. The Big Five framework, which organizes skills into five broad domains and more specific facets was used to classify socio-emotional skills. The results of multilevel structural equation modeling indicated that socioeconomic gaps were present in eight out of the 15 socio-emotional skills more specifically, we found socioeconomic gaps in persistence, emotional control, empathy, trust, tolerance, creativity, sociability, and assertiveness. However, we did not find gaps in self-control, responsibility, stress resistance, optimism, cooperation, curiosity, and energy. At a broader level, there seem to be more differences in the domains of collaboration and social engagement compared to emotion regulation and task performance. Empathy, trust, sociability, and assertiveness showed the strongest disparities among students from different economic strata. School-based interpersonal relationships partly explained these gaps. Students from more advantaged families experienced more positive school-based interpersonal relationships, which in turn, facilitated higher socio-emotional skills. The theoretical and practical implications are discussed.

Zhang, W. (2025). **Changing tides of shadow education in China: trends and opportunities**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wa
The so-called shadow education system of private supplementary tutoring became a highly significant phenomenon in China during the 2000s and 2010s. Families viewed shadow education as a strategy to preserve their children's chances in highly competitive environments characterised by increasing uncertainty. In 2021, the government cracked down on the industry but addressed only the symptoms rather than the causes. Families still felt the need to compete in these uncertain environments, and many continued to seek tutoring, albeit through underground channels. The government crackdown also impacted the industry itself, but entrepreneurs responded by finding ways around the regulations, developing new curricula, and harnessing emerging technologies. Families still face considerable uncertainty, and future patterns will reflect a complex web of contradictions with ongoing shifts in power relations.

Aspects psychologiques de l'éducation

Ademolu, E. (2025). **Appreciating dyslexic thinking in qualitative research: reflections and recommendations for culturally competent, neuro-inclusive academia**. *Higher Education*, *90*(1), 131-156. https://doi.org/10.1007/s10734-024-01314-x
Dyslexia and its associated learning challenges are often misconstrued as intellectual deficits, leading to erroneous assumptions that individuals with dyslexia cannot thrive or contribute meaningfully to academic institutions. However, this article contends that the unique thinking patterns associated with dyslexia are complementary to and can substantially enrich the professional practice of qualitative research. The social model of disability emphasises how Higher Education Institutions, rooted in ableist and neurotypical norms, often marginalise and fail to accommodate dyslexic cognitive profiles. Conversely, cultural competency, as an actionable conceptual framework, calls for transformative changes that promote understanding, build meaningful relationships, and ensure effective communication with neurodivergent individuals. Drawing on my

experience as a dyslexic academic, I examine critical discussions on disability, neurodiversity, higher education, and qualitative research. Adopting an autoethnographic methodological approach, I highlight my professional strengths within this context, and propose an adaptable cultural competency framework aimed at cultivating neuro-inclusive—and specifically dyslexic-friendly practices, at the individual and organisational levels within academia.

Ahola, S., Järvenoja, H., Törmänen, T., & Malmberg, J. (2025). **The intertwined nature of socio-emotional interaction and contributions to the regulation of learning in collaborative groups**. *International Journal of Educational Research*, *133*, 102691. https://doi.org/10.1016/j.ijer.2025.102691
This study aims to investigate the intertwinement of group members' regulation of learning and their socio-emotional interactions during groups' engagement in collaborative science tasks. Specifically, the study first explores group members' contributions to regulation that occurs alongside their socio-emotional interactions; the study then examines how different contributions are associated with the simultaneous affective states of the groups. The study involved 18 groups of three participants from a 7th grade science class who were engaged in authentic collaborative group work during a seven-week physics course. The research employed a multi-faceted approach, utilising 360-degree cameras to record collaborative sessions and Shimmer 3 GSR+ sensors to measure electrodermal activity (EDA). The analysis encompassed three key steps: a qualitative video analysis to detect socio-emotional interactions and the group-level regulation of learning between the group members, a combined analysis of affective states through a qualitative video analysis of emotional expressions and EDA data, and a statistical analysis employing a two-step cluster analysis and chi-square test to explore group members' contributions to the regulation of learning along with the groups' affective states. The findings revealed significant associations between affective states and contributions to the regulation of learning. Qualitative examples further illustrated these findings, which occurred in an authentic science class setting. The results are consistent with prior research emphasising the role of socio-emotional factors in the regulation of learning within collaborative learning contexts. The study contributes to the theoretical understanding of how groups with different affective states might engage in the regulation of learning to overcome challenging collaborative learning situations.

Al-Rousan, A. H., Ayasrah, M. N., Khasawneh, M. A. S., Obeidat, L. M., & Obeidat, S. S. (2025). **AI-Enhanced Gamification in Education: Developing and Validating a Scale for Measuring Engagement and Motivation Among Secondary School Students: Insights From the Network Analysis Perspective**. *European Journal of Education*, *60*(3), e70153. https://doi.org/10.1111/ejed.70153
This study aimed to develop and validate the Gamified AI Learning Engagement and Motivation Scale (GALEMS) to assess secondary school students' motivation and engagement within AI-enhanced gamified learning environments in Jordan. The research employed a sequential exploratory mixed methods design grounded in Self-Determination Theory and Flow Theory. In the qualitative phase, semi-structured interviews with 20 experts led to the identification of six key dimensions: Motivational Resonance, Learning Flow Experience, AI-Driven Social Dynamics, Cognitive Immersion, Reflective Metacognition and Learning Self-Efficacy. An initial 47-item scale was constructed and refined through expert validation. In the quantitative phase, 640 secondary students participated, with the sample split into two groups (n = 320 each) for

Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). EFA revealed a six-factor structure explaining 52.3% of the total variance, and CFA confirmed good model fit (CFI = 0.940, RMSEA = 0.067, SRMR = 0.039). The final scale included 33 items, all with factor loadings > 0.40. Internal consistency was confirmed (Cronbach's α and McDonald's ω > 0.70), and test–retest reliability over 2 weeks yielded high correlations (e.g., GALEMS total score r = 0.92, p < 0.001). Multi-group invariance testing demonstrated measurement consistency across gender (ΔCFI < 0.004). Exploratory Graph Analysis (EGA) with 1000 bootstrap samples confirmed the stability of the six-dimensional structure in 99.8% of iterations. GALEMS provides a culturally grounded, psychometrically sound tool for evaluating motivation and engagement in AI-based gamified learning environments.

Aryani, A. T. D., & Rosyid, A. (2025). **Online learning engagement and operational accounting competencies: the moderating role of digital literacy**. *Education and Information Technologies*, *30*(13), 18277-18299. https://doi.org/10.1007/s10639-025-13517-5

The abrupt and swift transition to online remote learning due to COVID-19 left numerous Indonesian universities in a state of disarray, owing to the challenge of adapting to remote teaching and learning with only some or minimal prior experience. This is because many universities in Indonesia are traditional institutions that typically conduct their learning activities in-person, on a physical campus. This study aims to empirically determine the effects of student engagement in online learning and digital literacy on operational accounting competencies. Additionally, it seeks to determine whether digital literacy could act as a moderating variable, enhancing or diminishing the impact of student engagement in online learning on operational accounting competencies for fifth and seventh-semester Accounting Sharia students at Universitas Islam Negeri (UIN) KH Abdurrahman Wahid Pekalongan, Indonesia. Guided by Situated Learning Theory, this research highlights the role of authentic, contextual learning environments in developing competencies. The study generates survey data using a pre-designed questionnaire completed by 113 students. Data are analyzed using descriptive analyses and PLS-SEM (Partial Least Square-Structural Equation Modelling). It can be concluded that digital literacy and student engagement have a significantly positive effect on operational accounting competencies. However, the results indicate that digital literacy does not strengthen or lessen the relationship between student engagement in online learning and operational accounting competencies. These findings underscore the importance of Situated Learning Theory in emphasizing practical experience, collaboration, and participation in real-world accounting activities, which are crucial components of effective learning in operational accounting.

Asgarova, V. (2025). **"Having problems is a good way to deepen relationships" - Exploring the emotion regulation of China-based foreign teachers with and for domestic students**. *International Journal of Educational Research*, *133*, 102712. https://doi.org/10.1016/j.ijer.2025.102712

Little is known about how teachers regulate their emotions in response to unwanted student behaviors in higher education, such as reticence. This is particularly significant in the context of China, where the number of domestically internationalized programs and foreign experts is increasing, yet research on their experiences remains scarce. Adopting a qualitative multi-case approach, including interviews and classroom observations across Chinese higher education institutions, this study aimed to explore how educators

perceive and react to inactive student participation behaviors and examine the emotional adjustment patterns that teachers experience in their interpersonal relationships with students. Teachers, overall, expressed frustration with students' inactive participation, with some describing this behavior as a form of 'perfunctory cooperation.' This study challenges the common belief that Asian students' silence is due to their lack of language proficiency and weakens the argument that Asian students are typically silent in international classrooms abroad because they are in unfamiliar environments. Since internationalization strategies in China are still emerging and less common, the study aims to contribute to enhancing the work environment, particularly within international education programs, by fostering positive teacher-student interactions and addressing the emotional needs of educators in diverse cultural settings.

Ateş, H., & Gündüzalp, C. (2025). **The convergence of GETAMEL and protection motivation theory: A study on augmented reality-based gamification adoption among science teachers**. *Education and Information Technologies*, *30*(12), 17361-17403. https://doi.org/10.1007/s10639-025-13480-1
This study examines the determinants of science teachers' intentions to adopt augmented reality-based gamification through an integrated framework that merges the General Extended Technology Acceptance Model for E-Learning (GETAMEL) with Protection Motivation Theory. The research investigates how cognitive factors, including perceived usefulness and ease of use, interact with motivational constructs such as self-efficacy, anxiety, and perceived threats to influence adoption intentions. Furthermore, the study explores the moderating effect of professional status (pre-service vs. in-service teachers) to identify variations in adoption patterns. A structural equation modeling approach was employed to validate the proposed hypotheses using a diverse sample of 1,634 science teachers. The findings demonstrate that cognitive evaluations, motivational drivers, and social influences jointly shape teachers' intentions to adopt augmented reality-based gamification. Notably, in-service teachers show a stronger response to motivational factors, while pre-service teachers are more affected by perceived barriers. These results offer theoretical contributions to educational technology literature by integrating cognitive, motivational, and social perspectives. Additionally, the study provides practical recommendations for developing targeted professional development programs and strategies to foster augmented reality-based gamification adoption across diverse teaching contexts.

Ateş, H., & Polat, M. (2025). **Leveraging augmented reality and gamification for enhanced self-regulation in science education**. *Education and Information Technologies*, *30*(12), 17079-17110. https://doi.org/10.1007/s10639-025-13481-0
This study investigates the efficacy of integrating augmented reality (AR)-based gamification with self-regulated learning (SRL) strategies to enhance middle school students' academic performance, engagement, satisfaction, and self-efficacy in science education. Employing immersive AR technologies alongside gamification elements, this approach is designed to cultivate an engaging and learner-centered environment that promotes essential SRL competencies including goal-setting, self-monitoring, and reflective thinking. Utilizing an experimental research design, the study engaged 60 middle school students who were allocated into two groups: one experiencing self-regulated AR-based gamification and the other experiencing traditional AR-based gamification without self-regulation components. The findings reveal that students in the self-regulated AR-based gamification group demonstrated

significantly enhanced levels of academic achievement, engagement, self-efficacy, and overall satisfaction compared to their peers in the traditional group. These outcomes suggest that the strategic integration of AR-based gamification with SRL strategies not only fosters significant improvements in educational performance but also enriches the learning experience, thereby providing critical insights for the development of innovative educational technologies that support comprehensive understanding and foster student autonomy in science education.

Azkarate-Iturbe, O., Álvarez-Huerta, P., Muela, A., & Larrea, I. (2025). **Latent Class Analysis of Student Engagement in Higher Education and its Relationship to Cooperative Mindset and Critical Thinking**. *Innovative Higher Education*, *50*(4), 1411-1431. https://doi.org/10.1007/s10755-025-09785-1
The primary aim of this study was to examine whether the level of engagement shown by higher education students is associated with their disposition toward critical thinking and cooperative mindset. We also explored the influence that gender, age, and field of study have on student engagement. Participants were 1580 Spanish undergraduates aged between 18 and 37 years (M = 21.94, SD = 1.61), all currently in year 4 of a degree program. Regarding gender, 54.4% were female, 45.1% male, and 0.5% non-binary. Latent class analysis identified three underlying profiles of student engagement, which we labeled high, moderate, and low engagement. Women and social sciences students were more likely to belong to the high engagement class, but no significant differences were observed with respect to age. Students identified as showing high engagement also scored higher on measures of cooperative mindset and critical thinking disposition. The results highlight the importance of fostering engagement among higher education students, as this may contribute not only to better academic performance but also to the development of a cooperative mindset and disposition toward critical thinking, both of which are crucial skills in their personal and professional development. It is suggested that educational institutions should design and implement specific interventions aimed at boosting engagement, adapting these to students' demographic and academic profiles.

Bai, X., Wang, Y., & Du, J. (2025). **Foreign Language Enjoyment and Burnout as Predictors of Multilinguals' Willingness to Communicate**. *European Journal of Education*, *60*(3), e70192. https://doi.org/10.1111/ejed.70192
Characterised by its nomadic traditions and multiethnic composition, Inner Mongolia exhibits unique linguistic diversity and intercultural exchange. Within such multilingual contexts, learners' willingness to communicate (WTC) may be influenced by emotional factors such as foreign language enjoyment (FLE) and foreign language learning burnout (FLLB). Therefore, this study investigates how FLE, FLLB and WTC interact within the context of multilingual education among Mongolian-speaking university students in China. Drawing on the Broaden-and-Build Theory and Control-Value Theory as conceptual frameworks, this quantitative study employed three validated questionnaires, completed by 246 students learning English as a third language, with 244 valid responses analysed. The results of descriptive statistics, Pearson correlation and structural equation modelling (SEM) were obtained using SPSS 27.0 and AMOS 24.0. The results indicated that FLE is a significant positive predictor of WTC ($\beta = 0.39$, $p < 0.001$), and FLLB is a considerable negative predictor of WTC ($\beta = -0.17$, $p < 0.05$). Moreover, 26.8% of variance in the WTC can be explained by FLE and FLLB jointly. It was also revealed that there is a negative correlation between FLE and FLLB ($\beta = -0.5$, $p < 0.001$). Based on the results, it can be

concluded that FLE in multilingual students promotes their WTC, while FLLB inhibits their WTC. The study offers theoretical and pedagogical implications for enhancing learner motivation, reducing emotional fatigue, and designing emotionally responsive classroom practices in multilingual education settings.

Ball, I., Banerjee, M., Holliman, A., & Tyndall, I. (2025). **Investigating Success in the Transition to University: A Systematic Review of Personal Risk and Protective Factors Influencing Psychosocial Success**. *Educational Psychology Review*, *37*(3), 77. https://doi.org/10.1007/s10648-025-10047-x
Navigating the transition to university is a challenge for many students with numerous negative consequences if not successful. The current literature body is disparate and contains numerous methodological and analytical inconsistencies that make it difficult to identify the most salient and effective factors that help predict transition success for students. The present study provides a systematic review of quantitative research linking personal level risk and protective factors to psychosocial success outcomes in the transition to university. Previous work has investigated factors influencing more traditional success metrics (e.g., academic achievement, completion), but the factors influencing, arguably more holistic, psychosocial success metrics (e.g., wellbeing) should also be understood. This is part of a larger review, following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Synthesis Without Meta-analysis (SWiM) guidelines, preregistered on the International Prospective Register of Systematic Reviews (PROSPERO, CRD42022330515), searching PsycInfo, Web of Science, and ERIC databases. Records were included if they studied 'traditional' first-year students transitioning to university and were longitudinal in design and excluded if they looked at specific subgroups of students (e.g., international students). The search yielded 32 articles that were eligible, highlighting 96 purportedly different salient factors which are consolidated to 16 salient elements grouped around five higher order domains. The findings are discussed with a consolidation mindset that aims to move the research forward towards an evidence-based feasible and pragmatic intervention to enhance the probability of successful student transition to university.

Bei, E., Zarzycki, M., Incognito, O., & Pecini, C. (2025). **Misconceptions about neurodevelopmental disorders among Italian special education teachers: A mixed-methods study**. *International Journal of Educational Research*, *133*, 102709. https://doi.org/10.1016/j.ijer.2025.102709
Limited research explores Neurodevelopmental Neuromyths' prevalence and educational implications. This study examined Neurodevelopmental Neuromyths among 241 Italian Special Educational Needs and Disabilities (SEND) teachers and their potential instructional implications. A mixed-methods triangulated approach was employed, combining findings from the Neurodevelopmental Neuromyths questionnaire with qualitative open-ended responses on instructional practices. The results indicated a prevalence of approximately 27.9 % for Neurodevelopmental Neuromyths among teachers. Prior attendance in a neuroscience course and reading of scientific magazines served as protective factors. Qualitative analysis revealed four predominant themes in instructional practices to support needs of SEND students: (1) simplifying teaching, (2) personalizing teaching and assessments, (3) empowering school inclusion, and (4) modifying the school/classroom environment. While certain instructional practices aligned with evidence-based approaches, others appeared to be influenced by prevailing neuromyths. The study highlights the importance of targeted interventions,

including increased neuroscience training to enhance the overall support for SEND students.

Benbow, R. J., & Lee, Y.-G. (2025). **Student Service Member/Veteran Engagement with University Military-Focused Student Services: A Mixed Methods Study**. *Innovative Higher Education*, *50*(4), 1381-1410. https://doi.org/10.1007/s10755-025-09786-0
Student service member/veteran (SSM/V) university enrollment grew exponentially through the 2000s and 2010s. In response, many U.S. universities developed military-focused student services to address SSM/V campus challenges. While research suggests these services are beneficial, few recent studies have examined how often SSM/Vs engage with them across institutions or how engagement may connect to important outcomes. Using social capital theory, this mixed methods study analyzes SSM/V military-focused service engagement frequency, correlations between engagement frequency and campus belonging and institutional satisfaction, and SSM/V perspectives on why they engage and its benefits. Findings suggest SSM/Vs rarely engage, though more frequent engagement significantly associates with belonging and satisfaction. Some SSM/Vs describe how military-focused administrative expertise and social support encouraged them to engage more often, inviting a greater sense of institutional fit and satisfaction. Others, however, describe being too busy, disinterested, or alienated from SSM/Vs and the military experience to engage or see affective benefits.

Besson, M., Courtet, M., Schirrer, M., & Le Bot, G. (2024, juillet). ***Le bien-être des enseignants d'EPS : stratégies pédagogiques et didactiques pour le conserver tout au long de la carrière***. Consulté à l'adresse https://hal.science/hal-05187134
• Introduction et objectifs Dans un contexte où les carrières professionnelles sont amenées à durer plus longtemps, les enseignants d'EPS voient eux aussi leurs carrières s'allonger. Cette conjecture pose donc une problématique de durabilité dans le métier pour les enseignants d'EPS (Cau-Bareille, 2017a,b). L'objectif de notre travail de recherche sera de documenter ce que les enseignants d'EPS mettent en place comme stratégies concrètes et innovantes autant sur le plan pédagogique que didactique pour conserver leur bien-être tout au long de leur carrière. • Méthodologie Pour répondre à cet objectif, nous avons mené des entretiens semi-directifs auprès de cinq enseignants d'EPS ayant au moins 15 ans d'expérience dans le métier. Lors de ces entretiens, les enseignants sont incités à partager les approches qu'ils ont développées pour gérer les différentes contraintes et pressions liées à leur profession, ainsi que les techniques d'enseignement et les pratiques pédagogiques qu'ils ont adoptées pour promouvoir un environnement positif et soutenant pour eux-mêmes. Les entretiens offriront une occasion précieuse d'explorer les raisons sous-jacentes de ces choix pédagogiques et d'identifier les pratiques les plus bénéfiques pour le bien-être des enseignants d'EPS interrogés. • Résultats et discussion Les résultats de cette recherche sont en cours d'analyse. Cependant, nous nous attendons à ce que la relation pédagogique qu'entretient l'enseignant avec ses élèves soit un élément prioritaire dans la conservation de son bien-être tout au long de sa carrière. • Conclusions et perspectives Cette recherche permet de documenter les facteurs qui influencent le bien-être des enseignants d'EPS et les solutions qu'ils utilisent concrètement sur le terrain pour accéder à un bien-être au travail et le conserver le plus longtemps possible (Garcia et Lantheaume, 2019). Les résultats obtenus portent sur des enseignants engagés, épanouis qui enseignent au collège. Il serait intéressant de comparer ces résultats avec d'autres profils d'enseignants tels que des enseignants de lycée ou des enseignants qui ne se

sentent pas bien au travail. De plus cette contribution permettra d'apporter des éléments de réponses aux questions suivantes : Comment des innovations sont mises en place pour répondre à des problématiques comme la durabilité ? Est-ce que les enseignants sont innovants pour préserver leur bien-être dans la durée d'une carrière ?

Bouten, A., Diloy-Peña, S., Abós, Á., García-González, L., Haerens, L., & De Cocker, K. (2025). **Chaotic (laissez-faire) teaching: The most harmful style for students' psychological needs?** *International Journal of Educational Research*, *133*, 102717. https://doi.org/10.1016/j.ijer.2025.102717

Self-Determination Theory (SDT) has been widely used to understand how different teaching styles impact student outcomes. Previous research has mainly focused on the negative effects of controlling teaching, while the influence of chaotic (laissez-faire) teaching has been less explored. This study examines how students' perceptions of highly chaotic (i.e., abandoning) and highly controlling (i.e., domineering) teaching approaches are related to the satisfaction and frustration of student basic psychological needs in secondary physical education (PE). The study involved 916 students in Belgium (58% girls; 15.37 ± 1.62 years old) and 1124 students in Spain (52% girls; 14.60 ± 1.51 years old). Using linear mixed-effects models, we found that both abandoning and domineering teaching approaches were adversely associated with students' basic psychological needs. The abandoning approach showed the strongest positive association with overall need frustration in both samples. Moreover, the abandoning approach was most strongly associated with competence and relatedness frustration in both countries, as well as with lower competence satisfaction in Spain. Both approaches showed a similar positive relationship with autonomy frustration. This study expands our understanding of demotivating teaching by demonstrating the harmful potential of highly chaotic teaching, beyond the well-known harmful effects of controlling teaching. The consistency of the findings across both countries highlights the international relevance of this research. These findings suggests that reducing highly chaotic (i.e., laissez-faire) teaching should be a priority in international educational practices and policies. Future research could investigate the causes, effects, and potential moderators of chaotic teaching to further guide educational policy and practice in different cultural contexts.

Bouten, A., Haerens, L., & De Cocker, K. (2025). **Students' relatedness with peers and teachers in secondary education: distinct associations with student motivation and engagement**. *Social Psychology of Education*, *28*(1), 143. https://doi.org/10.1007/s11218-025-10071-3

Positive relationships with classmates and teachers are essential for fostering student motivation and engagement. However, existing research often fails to differentiate between these two sources of relatedness and overlooks relatedness frustration. This study addresses these gaps by adapting the Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS) to distinguish between peer and teacher relatedness satisfaction and frustration in secondary physical education (PE) and investigating their unique associations with student motivation and engagement. The study involved 1043 secondary PE students (59% girls; mean age = 15.48 ± 1.65) from 76 classes. Participants completed the adapted BPNSFS and scales assessing motivation (intrinsic, identified, introjected, external, and amotivation) and engagement (behavioral, emotional, cognitive, and agentic). Factor analyses supported a four-factor model differentiating peer and teacher relatedness satisfaction and frustration. Linear mixed-effects models

revealed that peer and teacher relatedness satisfaction were positively associated with beneficial outcomes, while frustration was related to adverse outcomes. Notably, teacher relatedness satisfaction had stronger associations with adaptive outcomes, such as autonomous motivation and engagement, compared to peer relatedness satisfaction. In contrast, peer relatedness frustration showed stronger links with maladaptive outcomes, such as controlled motivation and lower agentic engagement, compared to teacher relatedness frustration. These findings enhance our understanding of the distinct roles peers (i.e., classmates) and teachers play in shaping students' classroom experiences, emphasizing the importance for PE teachers to develop supportive teacher-student relationships while mitigating negative relationships between students. The modified BPNSFS provides a nuanced tool for future research.

Bozkuş, K., & Canoğulları, Ö. (2025). **Exploring the mediating roles of self-control, management, and meaningful learning self-awareness in the relationship between academic self-discipline and GAI acceptance**. *Education and Information Technologies*, *30*(13), 18975-18995. https://doi.org/10.1007/s10639-025-13506-8
This study investigated the relationships between academic self-discipline, self-control and management, meaningful learning self-awareness, and generative artificial intelligence (GAI) acceptance among 597 teacher candidates at nine Turkish universities. A serial mediation model was proposed, hypothesizing that academic self-discipline influences GAI acceptance indirectly through self-control and management and meaningful learning self-awareness. Data were collected using four established scales. Structural equation modeling, employing robust maximum likelihood estimation due to non-normality of the data, revealed an excellent fit between the hypothesized model and the data. Results supported the serial mediation model: academic self-discipline positively predicted self-control and management, which in turn positively predicted meaningful learning self-awareness, which subsequently positively predicted GAI acceptance. The findings highlight the important roles of self-control, management and meaningful learning in shaping teacher candidates' acceptance of GAI. Implications for teacher education programs and future research are discussed.

Bühler, B., Fütterer, T., von Keyserlingk, L., Bozkir, E., Kasneci, E., Gerjets, P., & Trautwein, U. (2025). **Mapping Mind Wandering to the "Self-Regulated Learning Process, Multimodal Data, and Analysis Grid": A Systematic Review**. *Educational Psychology Review*, *37*(3), 76. https://doi.org/10.1007/s10648-025-10041-3
Attention is crucial for learners to enhance their learning and build knowledge. Sustaining prolonged attention requires students to self-regulate their behavioral, emotional, and cognitive processes. At the same time, learners engage in mind wandering approximately 30% of the time spent in educational activities, leading to a deterioration in learning outcomes. Despite its prevalence, the integration of mind-wandering research with self-regulated learning (SRL) frameworks remains limited. To address this gap, we first conceptually integrated research on mind wandering and SRL. Second, we assessed the extent to which this integration has been empirically explored by situating research on mind wandering during learning within the self-regulated learning process, multimodal data, and analysis (SMA) grid. To this end, we conducted a preregistered systematic literature review. We reviewed 134 studies from 2010 to 2024, analyzing the employed definitions of mind wandering, especially with regard to meta-awareness, the data streams used for measuring mind wandering, and whether mind wandering was investigated in relation to or in combination with cognitive, affective, metacognitive, and

motivational (CAMM) SRL processes. Our analysis revealed that a significant number of studies have examined mind wandering alongside cognitive and metacognitive SRL processes and predominantly using self-report measures. An equal number of studies unobtrusively measured mind wandering through multimodal data streams (e.g., eye tracking, physiology, reaction time), with 27% utilizing machine learning (ML) techniques for assessment. However, most of these reports did not include SRL procedures and only a small number of studies used an integrated analytic approach, combining multimodal assessment and including SRL processes. Overall, affective and motivational processes received little to no attention. This review demonstrates how integrating research on mind wandering into established SRL frameworks can enhance our understanding of their complex interaction and role in the learning process. It revealed a blind spot in studying mind wandering in educational settings in conjunction with SRL processes using multimodal data streams, especially regarding affective and motivational SRL processes. Additionally, the results suggest that this integration can improve the effectiveness of real-time interventions based on automated mind-wandering detection in attention-aware learning technologies, thereby supporting SRL.

Bulsara, D., Parker, S., & Cornell, J. (2025). **Experiences and Perceptions of Academic Motivation in Adolescents With a Refugee Background: A Reflexive Thematic Analysis**. *European Journal of Education*, *60*(3), e70120. https://doi.org/10.1111/ejed.70120
Little previous research exists on academic motivation in refugee adolescents, and none has been conducted in the UK that might help educators to promote motivation and mitigate demotivation in the young people they support. The aim of this study is to help address this gap by exploring experiences and perceptions of academic motivation in refugee adolescents settled in the UK. Semi-structured interviews were conducted in person or online with three refugee adolescents and six key informants who support the education of refugee adolescents. Data was interpreted by reflexive thematic analysis, which generated three themes: refugee adolescents are striving for stability and security; academic motivation is affected by social and academic relationships; and refugee adolescents are unique individuals with varied educational needs. Of particular note, positive social and academic relationships were found to be motivating, whereas instability in refugee adolescents' lives and negative interactions with teachers were demotivating. The findings also highlight the importance of recognising refugee adolescents' individuality and their unique characteristics, which inform their educational needs and academic motivation.

Calafato, R. (2025). **Multilingualism and Self-Development: Insights Into Teachers' Practices and Predictors**. *European Journal of Education*, *60*(3), e70230. https://doi.org/10.1111/ejed.70230
Self-development is vital for enhancing language teaching ability (LTA), a key component of instructional effectiveness. While prior research on LTA self-development has emphasised the roles of teacher cognition and emotion, less attention has been paid to teachers' linguistic repertoires. Yet, language teachers may draw on diverse linguistic resources that shape not only their teaching but also their self-development. Using a complexity theory framework, this study investigated the relationship between university language teachers' LTA self-development practices and their multilingualism, mindsets, anxiety, cultural orientations and perceptions of the societal and institutional status of the languages they teach, as measured by a questionnaire. Participants were teachers of English, French, German and Spanish. The findings revealed significant variation in LTA

self-development practices: English teachers reported lower engagement in research-focused activities compared to their counterparts teaching French, German and Spanish. The findings also indicated that multilingualism, specifically, the contextual use of multiple languages, emerged as the strongest and most consistent predictor of LTA self-development, surpassing anxiety, mindsets and cultural orientations. This finding, coupled with the significantly lower research engagement reported by English teachers, highlights the centrality of active multilingual practice in LTA self-development and underscores the need for more targeted initiatives that leverage language teachers' linguistic resources and address subject-specific disparities.

Camacho, A., Romera, E. M., Gómez-Ortiz, O., Antypas, K., Muller, S., Laudańska-Krzemińska, I., & Wiza, A. (2025). **Does School Climate Contribute To Psychological Adjustment? The Role of Resilience during Childhood**. *Child Indicators Research*, *18*(4), 1527-1548. https://doi.org/10.1007/s12187-025-10255-5
A supportive school climate helps schoolchildren's psychological adjustment, but it is relatively unknown about the processes that make these effects last over time. The present study aimed to examine the mediating role of resilience in the effects of school climate on psychological adjustment at the within-person level. The participants were a total of 1,052 primary school children (MChildrenAgeT1 = 8.19, SD = 1.76; 50% girls) from Spain, Poland, and Norway. Parents (87% mothers) reported on the study variables in four waves. School climate positively predicted prosociality and inversely internalizing and externalizing problems. Resilience was predicted by school climate and predicted psychological adjustment. Significant indirect effects were found on the mediating role of resilience. These results suggest that developing school climate helps children handle stressful situations and improve their adjustment.

Chai, H., Xue, R., Guo, H., & Fu, W. (2025). **The Effect of Epidemic Stress Perception of COVID-19 on Problematic Internet Use Among Chinese College Students: The Mediating Role of Basic Psychological Needs Satisfaction and Core Self-Evaluation**. *European Journal of Education*, *60*(3), e70207. https://doi.org/10.1111/ejed.70207
To explore the mediating effect of basic psychological needs satisfaction and core self-evaluation on the relationship between epidemic stress perception and problematic internet use among Chinese college students. A total of 597 college students were investigated by epidemic stress perception of COVID-19 questionnaire, basic psychological needs satisfaction scale, core self-evaluation scale and core self-evaluation scale. (1) The four variables of epidemic stress perception, basic psychological needs satisfaction, core self-evaluation and problematic internet use were significantly correlated with each other. (2) Basic psychological needs play a mediating role between epidemic stress perception and problematic internet use among college students. (3) Core self-evaluation plays a mediating role between epidemic stress perception and problematic internet use among college students. (4) There is a chain of multiple mediating effects between basic psychological needs satisfaction and core self-evaluation on the relationship between epidemic stress perception and problematic internet use among college students. The epidemic stress perception of college students can not only be a result of the epidemic but also of the problematic internet use among college students.

Chang, C.-L., Jaeger, J., & Stupnisky, R. H. (2025). **How does faculty stress and health affect their research motivation and productivity?** *International Journal of Educational Research*, *133*, 102657. https://doi.org/10.1016/j.ijer.2025.102657
University faculty often contend with intense workloads, leading to considerable stress and diminished well-being. The impact of these demanding factors on faculty research motivation and research productivity requires further investigation. There is a gap in current research of knowing the relationship between faculty stress, health, motivations, and research productivity. This study recruited 651 US STEM faculty members to complete an online survey rooted in self-determination theory aimed to investigate the relationships between STEM faculty stress and health with their motivation for research and, in turn, their research productivity. Findings indicate that lower stress levels and improved mental health correlate with enhanced feelings of autonomy and competence. The result of factor analysis and Structural equation modeling suggested that higher levels of autonomous motivation and decreased introjected motivation, thereby significantly enhancing research productivity. Further analysis suggests that autonomy, mediated through increased autonomous motivation, indirectly strengthens the connection between mental health and research achievements. These insights prompt discussions on the pivotal role of mental health in shaping faculty members' motivation and success in research. The results of this study can inform higher education policymakers in designing and implementing strategies to enhance faculty research productivity through targeted support for mental and physical health.

Chellappa, V. (2025). **Exploring students' intention to use a mobile application for learning construction ergonomics**. *Education and Information Technologies*, *30*(12), 16805-16833. https://doi.org/10.1007/s10639-025-13453-4
Construction ergonomics is crucial for developing strategies to prevent workplace injuries and enhance worker well-being. However, this critical topic is often overlooked or inadequately addressed in civil engineering education programs. To bridge this knowledge gap, a mobile application (app) was developed to facilitate learning about construction ergonomics for civil engineering students. This study investigates factors influencing civil engineering students' intention to use a mobile learning platform for construction ergonomics. Building upon the Technology Acceptance Model (TAM), which emphasizes perceived usefulness and ease of use, the researchers incorporated additional variables—perceived app quality, perceived enjoyment, and information quality—to provide a more comprehensive understanding of technology adoption in this context. Data were collected from 107 students at an affiliated institute of Anna University Chennai. The results showed that nine out of the ten proposed hypotheses were supported. Findings indicate that students perceive the app's information as useful, develop a positive attitude toward it, and are inclined to use it. This study contributes to ergonomics theory by providing a theoretical foundation for applying mobile apps in construction ergonomics education. The findings also have implications for practical innovation and the wider adoption of mobile learning in civil engineering education.

Chen, C., & Yin, H. (2025). **Investigating the relationship between instructional leadership and teacher well-being: A moderated mediation analysis of PISA 2022**. *International Journal of Educational Research*, *133*, 102699. https://doi.org/10.1016/j.ijer.2025.102699
Guided by the job demands-resources model, a moderated mediation analysis was conducted to explore the relationship between teachers' perceived instructional leadership and well-being, with teachers' workload stress as the mediator and autonomy

support as the moderator, using data from 46,563 secondary school teachers in the PISA 2022 survey. The results revealed that instructional leadership significantly positively predicted teacher well-being across 15 participating countries and regions, and this relationship was partially mediated by teachers' workload stress. Perceived autonomy support was found to moderate the detrimental effect of workload stress on teacher well-being. The implications of these findings are discussed.

Chen, C.-C., & Tsai, Y.-H. (2025). **Effect of interactive e-book use on learning engagement, satisfaction and perceived learning**. *Education and Information Technologies*, *30*(11), 15757-15789. https://doi.org/10.1007/s10639-025-13415-w
With the rapid advancement of digital learning technologies, interactive e-books have emerged as a pivotal tool in technology-enhanced education, particularly for promoting active learning. However, existing research on learning engagement has inadequately addressed the integrated effects of emotional, behavioral, and cognitive dimensions on learning achievement. To address this gap, the present study investigates the impact of interactive e-book materials, designed in alignment with the GAFCCC strategy framework (Goals, Access, Feedback, Challenges, Collaboration), on various learning metrics, including learning achievement, engagement, satisfaction, and perceived learning. A comparative analysis was conducted with lecturer-centered narrative teaching to evaluate the differences between the two approaches. The findings demonstrate that the use of interactive e-books significantly enhances students' academic performance, engagement, satisfaction, and perceived learning outcomes. Further analysis reveals that the emotional, behavioral, and cognitive dimensions of engagement exhibit moderate to strong correlations with cognitive learning outcomes and satisfaction levels. Among these dimensions, emotional engagement is identified as the most influential factor affecting satisfaction, while cognitive engagement is the primary driver of perceived learning. Moreover, in comparison to lecturer-centered teaching, students expressed a marked preference for learning through interactive e-books, citing greater interest, sustained attention, and heightened classroom engagement. However, the research is limited by its exclusive focus on the emotional, cognitive, and behavioral dimensions of engagement, potentially overlooking other significant factors influencing learning outcomes.

Chiou, C.-C., & Lin, K. H.-C. (2025). **Learning-related animated multidimensional concept map multimedia materials to stimulate positive emotions and enhance learning achievements in university students: A true experimental design**. *Education and Information Technologies*, *30*(12), 17659-17694. https://doi.org/10.1007/s10639-025-13473-0
This study aimed to explore the effects of integrating learning-related animations and anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials to stimulate positive emotions in university students and to investigate whether these materials could improve their learning achievements. The research method employed a true experimental design. Participants were 158 volunteer students recruited from the College of Management at a national university in central Taiwan. Data analysis methods included analysis of covariance and regression analysis. Results showed that multimedia learning materials using learning-related animated multidimensional concept maps were more effective in stimulating students' positive emotions and improving their learning outcomes than the other three types. Notably, students' learning achievements were directly influenced by the use of different types of

multimedia learning materials rather than through the mediation of positive emotions. In conclusion, this study demonstrates that integrating learning-related animations and anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials can stimulate students' positive emotions and positively impact their learning achievements. This study innovatively integrates additional elements such as learning-related animations and intrinsic design elements like anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials, providing additional contributions to the cognitive theory of multimedia learning and the principles of emotional design.

Chiu, E. Y. Y. (2025). **Teaching through the storm: The role of 'critical emotions' in shaping teachers' pandemic transformations**. *International Journal of Educational Research*, *133*, 102687. https://doi.org/10.1016/j.ijer.2025.102687
This research examines the emotional journeys of teachers transitioning to online teaching during the pandemic, revealing how emotions shape teaching practices and professional identity. Grounded in Mezirow's theory of transformative learning, this study positions transformative learning as the theoretical lens through which teachers' emotional experiences are analysed. As education becomes increasingly digital, understanding the psychological and affective dimensions of teaching is essential. The study argues that intense emotions, from anxiety and frustration to joy and fulfilment, act as catalysts for critical self-reflection, triggering transformative learning processes. Teachers engage in meaning-making that fosters professional growth and rediscovery of their passion for teaching by confronting challenges, reassessing their roles, and adapting pedagogies. Through qualitative case studies of five teachers from Germany, France, and Italy, this research investigates how emotional upheaval prompts reflection, adaptation, and profound shifts in professional perspectives. Thematic and narrative analysis demonstrate that transformative learning, driven by emotional engagement, enables teachers to reinterpret negative experiences, cultivate resilience, and emerge with renewed dedication. The findings underscore transformative learning as a vital framework for understanding how teachers convert emotional challenges into opportunities for empowerment and pedagogical innovation.

Chou-Lee, M., & Tran, L. T. (2025). **Domestic Students' Engagement in Internationalisation at Home: Devoloping Intercultural, Ethical, Personal, Social, Critical and Creative Thinking Capabilities in Australian Secondary Schools**. *European Journal of Education*, *60*(3), e70171. https://doi.org/10.1111/ejed.70171
This article explores domestic students' engagement in internationalisation, based on data collected from individual and focus group interviews as part of a longitudinal study across four secondary schools in Victoria, Australia. While the four capabilities, intercultural, ethical, personal and social, and critical and creative thinking, are integral to internationalising teaching and learning practices, little research has explored this connection in the context of domestic students' engagement with internationalisation in the school sector. This article addresses this critical gap in the literature. Using intersectionality as a theoretical framework to interpret domestic students' perspectives, this article focuses on the criterion of intercultural capability as delineated in the Victorian Foundation to Year 10 (F-10) curriculum and identifies areas of overlap with the other capabilities (ethical, personal and social, critical and creative) present in the Australian national curriculum. Recognising the interrelatedness of capabilities is essential, as key skills often emerge at their intersections. These skills include the ability to recognise,

accept, and negotiate differences and form better connections while interacting interculturally. The study found that although students engage in extensive discussions about worldwide issues, their critical thinking and literacy skills remain under-developed. Additionally, barriers created by various structural and disciplinary power relationships in schools add to divisions between domestic and international students, preventing them from interacting in more meaningful ways. Based on the findings, the article discusses implications for fostering these interrelated capabilities and supporting innovative internationalisation in teaching and learning practices in secondary schools.

Ci, F., Yang, S., & Yin, H. (2025). **Unravelling the Interplay of Pre-Service Language Teachers' Emotions and Professional Identities: A Dynamic Systems Model of Role Identity Perspective**. *European Journal of Education*, *60*(3), e70196. https://doi.org/10.1111/ejed.70196
Previous studies have given limited attention to the emotional and identity changes of pre-service language teachers in education taught master (ETM) programmes. To fill this gap, this study explores the emotional changes of seven pre-service language teachers undergoing professional training in an ETM programme. Following the Dynamic Systems Model of Role Identity (DSMRI), we conducted semi-structured interviews, collected complementary reflection and employed thematic analysis to analyse the data. The results showed three identity development trajectories, namely, active practitioner, negative abandoner and uncertain hesitator. These identity trajectories were influenced by emotional factors and contextual factors (i.e., family, professional development programme and perceived social status) involved in the emotion–identity interplay. The findings enriched the understanding of emotions and identity changes among pre-service language teachers and refined the context dimension of the DSMRI. Additionally, it offers teacher educators and researchers valuable insights into developing the desirable emotions and identities of pre-service language teachers.

Dang, B., Huynh, L., Gul, F., Rosé, C., Järvelä, S., & Nguyen, A. (2025). **Human–AI collaborative learning in mixed reality: Examining the cognitive and socio-emotional interactions**. *British Journal of Educational Technology*, *56*(5), 2078-2101. https://doi.org/10.1111/bjet.13607
The rise of generative artificial intelligence (GAI), especially with multimodal large language models like GPT-4o, sparked transformative potential and challenges for learning and teaching. With potential as a cognitive offloading tool, GAI can enable learners to focus on higher-order thinking and creativity. Yet, this also raises questions about integration into traditional education due to the limited research on learners' interactions with GAI. Some studies with GAI focus on text-based human–AI interactions, while research on embodied GAI in immersive environments like mixed reality (MR) remains unexplored. To address this, this study investigates interaction dynamics between learners and embodied GAI agents in MR, examining cognitive and socio-emotional interactions during collaborative learning. We investigated the paired interactive patterns between a student and an embodied GAI agent in MR, based on data from 26 higher education students with 1317 recorded activities. Data were analysed using a multi-layered learning analytics approach, including quantitative content analysis, sequence analysis via hierarchical clustering and pattern analysis through ordered network analysis (ONA). Our findings identified two interaction patterns: type (1) AI-led Supported Exploratory Questioning (AISQ) and type (2) Learner-Initiated Inquiry (LII) group. Despite their distinction in characteristic, both types demonstrated comparable

levels of socio-emotional engagement and exhibited meaningful cognitive engagement, surpassing the superficial content reproduction that can be observed in interactions with GPT models. This study contributes to the human–AI collaboration and learning studies, extending understanding to learning in MR environments and highlighting implications for designing AI-based educational tools. Practitioner notes What is already known about this topic Socio-emotional interactions are fundamental to cognitive processes and play a critical role in collaborative learning. Generative artificial intelligence (GAI) holds transformative potential for education but raises questions about how learners interact with such technology. Most existing research focuses on text-based interactions with GAI; there is limited empirical evidence on how embodied GAI agents within immersive environments like Mixed Reality (MR) influence the cognitive and socio-emotional interactions for learning and regulation. What this paper adds Provides first empirical insights into cognitive and socio-emotional interaction patterns between learners and embodied GAI agents in MR environments. Identifies two distinct interaction patterns: AISQ type (structured, guided, supportive) and LII type (inquiry-driven, exploratory, engaging), demonstrating how these patterns influence collaborative learning dynamics. Shows that both interaction types facilitate meaningful cognitive engagement, moving beyond superficial content reproduction commonly associated with GAI interactions. Implications for practice and/or policy Insights from the identified interaction patterns can inform the design of teaching strategies that effectively integrate embodied GAI agents to enhance both cognitive and socio-emotional engagement. Findings can guide the development of AI-based educational tools that capitalise on the capabilities of embodied GAI agents, supporting a balance between structured guidance and exploratory learning. Highlights the need for ethical considerations in adopting embodied GAI agents, particularly regarding the human-like realism of these agents and potential impacts on learner dependency and interaction norms.

Demogeot, N., Tavant, D., Chaume, A. M.-A., & Gäng-Pacifico, D. (2024). ***Compte-rendu de la Journée d'études interdisciplinaires "Identification précoce des troubles émotionnels et comportementaux de l'enfant de 6 à 12 ans en classe ordinaire et pistes d'interventions pédagogiques" et Test de dépistage à l'usage des enseignants (Questionnaire des forces et des faiblesses_DG)***. Consulté à l'adresse https://hal.science/hal-05211185
The study day titled « Early Identification of Emotional and Behavioral Disorders in Children Aged 6 to 12 in School Settings and Pedagogical Intervention Strategies » brought together professionals from clinical psychology, special education, and other educational fields to address the crucial issue of early detection of emotional and behavioral disorders (EBD) in children within school settings. The event provided an opportunity to present practical tools for teachers. The discussions fostered an integrated approach to screening practices, emphasizing the importance of interdisciplinarity and collaboration among professionals. By sharing knowledge and adapting methods, this day reinforced existing practices and paved the way for a more coherent and informed approach to supporting students in difficulty. The ultimate goal was to promote a timelier, collaborative, and coordinated approach to the detection of EBD, aiming to better support children from their early school years.

Di Lisio, G., Halty, A., Berástegui, A., Milá Roa, A., & Couso Losada, A. (2025). **The longitudinal associations between teacher-student relationships and school outcomes in**

typical and vulnerable student populations: a systematic review. *Social Psychology of Education*, *28*(1), 144. https://doi.org/10.1007/s11218-025-10107-8
This systematic review examines the teacher-student relationship (TSR) from an attachment perspective and explores its impact on academic (dis)engagement, (under)achievement and Early School Leaving (ESL) over time. It addresses two objectives: (1) examining the longitudinal influence of TSR on academic outcomes and (2) assessing its effect on vulnerable student populations, including those facing Social Vulnerabilities (e.g., students from ethnic minorities, migrant backgrounds, or living in low socioeconomic conditions), Special Needs (e.g., disabilities or learning difficulties), and Mental Health issues. Additionally, the review considers how individual characteristics such as gender may shape the quality and impact of TSRs. A total of 37 longitudinal studies from ERIC, Academic Search Complete, Scopus and Web of Science were analyzed, using the PRISMA guidelines to ensure transparency and replicability. The results revealed significant associations between the quality of TSR and academic (dis)engagement over time, with smaller effects on academic (under)achievement. Mixed results were found regarding gender. Students from low socioeconomic status, minority backgrounds, and those with mental health challenges experienced poorer TSR, which in turn led to poorer academic outcomes in the long run. For Special Needs students, positive TSRs supported behavioral engagement and academic achievement, while poor relationships were linked to increased conflict and risk of disengagement. The review underscores the importance of supportive and responsive teacher-student interaction in fostering a conducive learning environment over time, especially for vulnerable students. Additionally, it suggests that enhancing TSR quality can act as a protective factor against disengagement and underachievement, thereby reducing the risk of ESL. These findings highlight the need for targeted interventions to improve TSRs, particularly for students at higher risk of educational exclusion. Overall, the study provides a comprehensive understanding of how TSRs influence various academic outcomes over time, offering valuable recommendations for educators and policymakers to support vulnerable student populations.

Ding, Z., Liu, R.-D., Ding, Y., Yang, X., & Yang, Y. (2025). **Moderation is the key: taking too easy or too hard courses increases academic cyberloafing**. *Education and Information Technologies*, *30*(13), 18513-18538. https://doi.org/10.1007/s10639-025-13546-0
Academic cyberloafing, defined as the involvement in non-academic online activities during academic tasks, has emerged as a prevalent concern within higher education. While previous research has identified course-related factors that may influence academic cyberloafing, the specific relation between perceived course difficulty and academic cyberloafing remains underexplored. To address this gap, five studies (N = 1118) were conducted to investigate the relation between perceived course difficulty and academic cyberloafing and the mediating role of learning engagement among Chinese college students. Study 1 employed a questionnaire to investigate the U-shaped relation between perceived course difficulty and academic cyberloafing. Study 2, utilizing an experimental design, further confirmed this U-shaped relation. Studies 3 and 4 demonstrated learning engagement mediated the relation between perceived course difficulty and academic cyberloafing through scenario-based experiments. Finally, Study 5 reinforced these findings by manipulating perceived course difficulty within a real classroom setting, providing additional support for the mediating role of learning engagement. The results emphasize the critical role of students' engagement with course content in influencing their likelihood of engaging in academic cyberloafing,

particularly when the perceived course difficulty is moderate. Taken together, the findings have implications for teachers' course design and contribute to a more comprehensive understanding of academic cyberloafing in classrooms.

Elçi, A. N., Atman Uslu, N., Yildiz Durak, H., Kula Unver, S., Ozaltun Celik, A., & Bukova Guzel, E. (2025). **What Drives Metacognitive-Identity Profiles for Primary School Teachers? A Latent Profile Analysis and Predictor Roles of Growth Mindset and Demographics**. *European Journal of Education*, *60*(3), e70169. https://doi.org/10.1111/ejed.70169
Metacognition involves teachers reflecting on their knowledge and teaching practices and mobilising students' metacognition. Teachers' metacognitive regulation is necessary to promote students' learning and motivation. Additionally, teacher identity is a dynamic process that evolves through social interactions and relationships in the workplace. This study investigates the latent profiles of primary school teachers' metacognitive strategies and identities. It also examines how teacher growth mindset and demographic factors influence the membership prediction in these profiles. The participants of the study consisted of 303 primary school teachers working in various regions of Turkiye. Latent profile analysis (LPA) and ANOVA were used to analyse the data. The results revealed that four distinct profiles best represented the meta-cognitive organising strategies and teacher identity constructs observed among primary school teachers. Latent profile analysis revealed four distinct teacher profiles: (a) Detached educators: teachers with low metacognition and moderate teacher identity: characterised by moderate professional identity and weak metacognitive regulation strategies, (b) Highly performed teachers: strong metacognition and teacher identity: exhibit a strong teacher identity and metacognitive regulation skills, (c) Balanced profiles: teachers with moderate metacognition and teacher identity: characterised by a balanced distribution in terms of identity and metacognition, (d) Struggling with identity: teachers with low teacher identity but moderate metacognition: exhibit medium level of meta-cognitive regulation and the lowest level of teacher identity. ANOVA results show that there are significant differences between teachers' identity and meta-cognitive strategy use according to the profiles.

Fernández-Terol, L., & Domingo-Segovia, J. (2025). **Empowering Student Engagement: A Case Study of Transforming Schools Through Professional Learning Communities**. *European Journal of Education*, *60*(3), e12754. https://doi.org/10.1111/ejed.12754
Interest in studying student engagement arises from its predictive role in school success and its potential to address various classroom-related educational issues, such as school failure, low achievement, high dropout rates and student alienation. This article presents a case study set in a challenging Spanish school environment that actively promotes student engagement in learning. The study's goal is to gain a contextual understanding of educational change, exploring the school's educational project development, its journey as a professional learning community, and the foundational elements underpinning such engagement. The findings highlight the pivotal role of curriculum and middle management leadership, shifts in teaching methodologies, the cultivation of collaborative professionalism, the enhancement of professional capital and the establishment of supportive structures and dynamics for student engagement. Moreover, this research suggests that the school's achievements are the outcome of a prolonged and intricate process of institutional development led by effective leadership.

Fülöp, M. T., & Cifuentes-Faura, J. (2025). **Digital approaches in sustainable entrepreneurship training: Effects on student well-being and satisfaction**. *Education and Information Technologies*, *30*(11), 14893-14924. https://doi.org/10.1007/s10639-025-13390-2
Sustainable entrepreneurship training is becoming increasingly important in the age of digitalization, as it provides future entrepreneurs with the necessary skills to develop responsible and innovative business models. The analysis shows that effective training in this area must involve digital technologies to convey sustainable practices in a practical way. Three theoretical models—expectancy disconfirmation theory, spillover theory, and social stimulus–organism–response theory—play essential roles in this effort. The current research focuses on the main factors that influence the statistics and well-being of students, with a primarily quantitative methodology based on the questionnaire method. Research findings show that skills such as information seeking, data evaluation, digital navigation, and data protection awareness are crucial to promoting student satisfaction and preparing them for the challenges of the modern business world. Therefore, educational institutions should develop curricula that combine digital and sustainable skills to ensure holistic training. Future research should examine how digital technologies can further improve the implementation of sustainable business models and how cultural differences influence the teaching of these skills.

Gacumo, R. J., Campbell, J. A., Løkken, I. M., & Kucirkova, N. I. (2025). **The role of gender in multisensory reading: Children's engagement with olfaction-enhanced digital books**. *International Journal of Educational Research*, *133*, 102658. https://doi.org/10.1016/j.ijer.2025.102658
The study explores the effect of olfactory enhancements on children's engagement with digital books and examines potential gender differences in their responses. Grounded in multisensory learning and affordances, the study hypothesised that olfactory cues would enhance children's engagement during shared reading. The sample consisted of 65 Norwegian-speaking children aged 4–5 from five different early childhood education and care centres (ECEC), who experienced both olfaction-enhanced and standard digital books in a within-subjects design. Results revealed significantly higher engagement across persistence, enthusiasm, compliance, overall engagement, and diverse facial responses when children interacted with the olfaction-enhanced book. No gender differences in engagement were observed, which suggests that multisensory design may offer inclusive opportunities for engaging young readers. This study contributes to emerging discussions on how sensory-rich features in digital texts might support early literacy experiences and enhance children's enjoyment of reading. Implications for educational practice and policy include the recommendation for thoughtful integration of diverse, multimodal texts into early childhood education to foster inclusive and meaningful engagement with reading.

Gao, W., Cao, Y., Hao, S., Hou, Y., Yu, A., & Meng, L. (2025). **Influential Factors Behind the Declining Helicopter Parenting in Chinese Emerging Adults' First-Year University Life**. *Journal of Youth and Adolescence*, *54*(8), 1944-1958. https://doi.org/10.1007/s10964-025-02171-2
Extensive research has demonstrated the detrimental effects of helicopter parenting on the adjustment of emerging adults. However, few studies have investigated the changing trend of this parenting style and the parental and emerging adult factors that influence the trend. This study tracked 455 first-year university students (78.2% female;

Mage = 18.73, SDage = 1.19) over three measurement points: 2, 4, and 14 months after enrollment. Through a latent growth model, the study revealed a significant downward trend in helicopter parenting behaviors among Chinese parents during the first year of their emerging-adult children's college life. Both parental failure mindsets and the autonomy and separation anxiety of emerging adults influenced the initial level of the declining trend in helicopter parenting. In contrast, only behavioral engagement of emerging adults in school activities is the key factor leading parents to reduce their overparenting behaviors. This study tracks the dynamics of helicopter parenting and identifies parental and emerging adult factors that shape its trajectory. The findings provide insights into reducing helicopter parenting practices and supporting emerging adults' adjustment during critical transitions.

Garrote, A., Grigoleit, E., & Tulowitzki, P. (2025). **Same job title, same stress? Insights from an analysis of stress profiles of school principals in Switzerland**. *International Journal of Educational Research*, *133*, 102698. https://doi.org/10.1016/j.ijer.2025.102698
The job of a school principal can be highly demanding, with stress levels depending on the individual's perception (i.e. perceived work overload) and coping behaviors (i.e. intensification and extension of working hours). To provide adequate support to school principals, it is imperative to identify those who are more at risk and to examine the related factors. We examine stress profiles of principals in Switzerland and their association with factors at the school (i.e., level, size) and principal level, such as individual characteristics (i.e., workload, qualification, self-efficacy) and professional development activities (i.e., coaching, peer mentoring, networks, informal exchange, conferences). Data from 1095 principals in pre-primary, primary, and lower-secondary schools were collected with questionnaires. Using latent profile analysis (LPA), profiles of principals with high, average, and low levels of stress were identified. The results show that most school principals were in the average profile and only a small group reported low levels of stress. The high-stress profile included one-third-of school principals, who were more likely responsible for pre-primary and primary level schools. Their levels of stress were associated with lower levels of self-efficacy beliefs but also with more frequent participation in professional development activities, such as coaching and peer mentoring. School size, official workload, and the qualification were not associated with stress profile membership. The findings highlight the importance of considering the school context as well as individual characteristics when investigating school principals' stress to develop tailored measures.

Geenen, F., Saelens, L., Van Hiel, A., Van de Putte, B., Valcke, B., & Stevens, P. A. J. (2025). **Unravelling classroom justice perceptions among Belgian-Moroccan students: a qualitative content analysis**. *Social Psychology of Education*, *28*(1), 154. https://doi.org/10.1007/s11218-025-10098-6
The present study employs qualitative content analysis to investigate perceptions of classroom justice within the specific multicultural dynamics of teacher-student interactions. Semi-structured interviews were conducted with fourteen parent-youth pairs of Belgian-Moroccan background, revealing that the three key dimensions of the classroom justice model—distributive, procedural and interactional justice—offer a useful framework for understanding ethnic-cultural minority students' perceptions of injustice. Beyond these dimensions, the analysis uncovered overarching patterns, including the interpretation of perceived classroom injustice in collective terms and the importance of educational tracking in the development of these perceptions. By illuminating the role of

justice in terms of underlying attributions, particularly discriminatory intent, the present study extends the classroom justice model and provides valuable insights into how justice perceptions contribute to ethnic-cultural minority students' vulnerable position within the educational system.

Geißler, T. (2025). **What an (Un) Favorable Match: Public Sector Employment and the Reversal of the Overeducation-Job Satisfaction Penalty**. *Journal of Happiness Studies*, *26*(6), 94. https://doi.org/10.1007/s10902-025-00926-z
It is a well-documented phenomenon that individuals with higher education than required for their job report lower job satisfaction. However, whether this also applies to public sector employees remains unclear. The German case reveals a negative relationship between overeducation and job satisfaction in the private sector, which is reversed to positive for public sector employees. This holds robust across various empirical alterations. Furthermore, it is revealed that individuals with altruistic motives and a stronger-than-average family orientation drive this positive relationship.

Gladstone, J. R., Schroeder, N. L., Heidig, S., Zhang, S., Palaguachi, C., & Pitera, M. (2025). **Do Pedagogical Agents Enhance Student Motivation? Unraveling the Evidence Through Meta-Analysis**. *Educational Psychology Review*, *37*(3), 72. https://doi.org/10.1007/s10648-025-10050-2
The use of pedagogical agents (PAs) as learning tools within digital learning environments is rising. Previous research shows that PAs can aid learning across various domains and age groups, but their impact on learner motivation is unclear. As PAs become more integrated into learning systems, building an in-depth and theory-driven understanding of how PAs may influence learners' motivation is necessary. We used four prominent motivation theories to guide our examination of the impact of PAs on learner motivation: social cognitive theory, situated expectancy-value theory, interest theory, and self-determination theory. A total of 58 articles met our inclusion criteria. We conducted seven, three-level meta-analyses that included 28 potentially moderating variables and used correlational and hierarchical effects and robust variance estimation. Our results revealed that PAs significantly influenced self-efficacy expectations and interest but did not significantly influence other theory-driven motivational beliefs. We discussed these findings from different theoretical perspectives and provided implications for practice.

Gong, Y. (Frank), Wang, Y., Zhang, J., & Chen, G. (2025). **The Positive Power of Cultural Intelligence: The Role of Psychological Need Satisfaction in the Well-Being of University Students in Macau**. *European Journal of Education*, *60*(3), e70204. https://doi.org/10.1111/ejed.70204
The role that cultural intelligence plays in university students' psychological functioning within multicultural contexts is of great significance. Despite its importance, limited research has been conducted to investigate the relationship between cultural intelligence and university students' well-being. This study aims to fill this gap by examining the association between cultural intelligence and well-being through the lens of self-determination theory. A sample of 571 university students from Macau SAR participated in this study. Both variable- and person-centred approaches were utilised to analyse the data. The results indicate that the students can be classified into three distinct groups regarding their cultural intelligence: low-, average-, and high-level. Notably, these groups exhibited varying levels of well-being and need satisfaction, with the high-level

group achieving the most favourable outcomes and the low-level group having the least desirable results. The study's theoretical and practical implications are discussed.

Granziera, H., J. Collie, R., Roberts, A., Corkish, B., Tickell, A., Deady, M., … Werner-Seidler, A. (2025). **Teachers' workload, turnover intentions, and mental health: perspectives of Australian teachers**. *Social Psychology of Education*, *28*(1), 149. https://doi.org/10.1007/s11218-025-10113-w
Teaching has long been recognised as a demanding profession. Despite growing acknowledgement of the stress and emotional exhaustion experienced by teachers, limited research has considered how these experiences may be associated with mental health. Accordingly, the present research aimed to address this gap by identifying the current levels of depression, anxiety, and stress among Australian teachers and by considering the extent to which workload—a frequently cited source of stress—was associated with teachers' mental health and turnover intentions. This cross-sectional study involved an online survey of 4,959 Australian primary and secondary school classroom teachers. Results revealed disproportionately high levels of depression, anxiety, and stress among Australian teachers, relative to the general population. Furthermore, path analysis revealed that teachers' workloads were correlated with greater levels of depressive symptoms, which in turn was correlated with higher levels of turnover intentions. The findings of the present study highlight the pressing need to address teachers' working conditions and to acknowledge and redress the significant levels of poor mental health in this population.

Grazia, V. (2025). **Teacher justice and (A)motivation: a longitudinal study in secondary school**. *Social Psychology of Education*, *28*(1), 142. https://doi.org/10.1007/s11218-025-10105-w
Within Self-Determination Theory's theoretical framework, student motivation is considered a crucial factor for school success and well-being, related to the capacity of the learning environment to meet individuals' psychological needs. The purpose of the present study was to analyze the longitudinal trajectories and associations of students' lack of autonomous motivation (amotivation) and a specific feature of the learning environment, students' perceptions of teacher justice, over the course of one school year, and the concrete teacher practices associated with this feature. Students in 9th to 13th grade (Mage = 16.28, SDage = 1.57, 69% male, 90% born in Italy) completed a self-report questionnaire in three waves over one school year (N = 787 in T1, 772 in T2, 836 in T3). Latent growth curve models (LGCM) were estimated to test individual trajectories and the interaction between motivation and teacher justice as parallel processes. The models indicated an increasing trajectory for both amotivation and perceptions of teacher justice, with a significant negative association among them. Increase in students' perceptions of teacher justice were predicted by teachers' support, clarity of assessment criteria and equity in the distribution of resources. Results highlight the importance of focusing on teacher justice as a crucial feature of the learning environment both from a theoretical perspective and for practical intervention in school.

Grønhøj, E. O., Smith, E., & Bundsgaard, J. (2025). **Why do so few girls aspire for a technology career? The role of social influence, motivational factors, and stereotypes**. *Social Psychology of Education*, *28*(1), 152. https://doi.org/10.1007/s11218-025-10084-y
Despite living in a digital age, the lack of diversity among adolescents aspiring to pursue careers in technology is of ongoing concern, particularly due to the low numbers of girls.

In this study, we investigate gender differences among 1,658 14/15-year-old Danish students' (49% girls) technology career aspirations and provide insights into factors that shape these aspirations. While previous research has mainly concentrated on science or STEM as a monolith, we specifically focus on technology, a case within the broader STEM field where the gender gap is especially pronounced. Scholars have argued that gender disparities in STEM aspirations can be attributed to stereotypes; this study offers nuanced perspectives on the types of stereotypes contributing to this gap. We applied a series of stepwise regression models and an Oaxaca-Blinder decomposition method to examine whether gender differences in students' perceptions of IT professionals, perceived parental and peer attitudes, technology-related activities in homes and families, and motivational factors mediate gender differences in students' aspirations for a technology career. The results from our analysis showed (1) substantial and significant gender differences favoring boys in students' technology aspirations, (2) that gender differences in students' interest, utility value, and perceived parental attitudes toward technology are the most influential variables in explaining the gender gap, and (3) that students' perceptions of IT professionals, technology-related activities in homes and families, competence beliefs, and perceived peer attitudes did not have a statistically significant influence on the gender gap in technology aspirations when considering students' perceived parental attitudes, interest, and utility value.

Hadizadeh, A., & Kanık, M. (2025). **Undergraduate Students' Conceptions of Academic Writing at the Intersection of English Medium Instruction and the Digital Age**. *European Journal of Education*, *60*(3), e70162. https://doi.org/10.1111/ejed.70162
This qualitative study explores the perceptions and conceptions of academic writing among 14 ELT students in an English medium instruction (EMI) context at an international university in Northern Cyprus, an under-researched setting. The study revealed that participants faced a variety of challenges and employed strategic approaches that created learning opportunities in their academic writing practices. The findings indicated that students encountered task-internal challenges (e.g., language proficiency and planning difficulties) and task-external constraints (e.g., time pressures and reliance on online resources). Emotional responses, such as self-doubt, particularly regarding academic integrity, were also common. Despite these challenges, students used strategies like independent research, peer support and language tools to overcome difficulties. The study emphasises the importance of positive instructor feedback and the motivational role of digital tools. The findings suggest that combining in-class writing instruction with digital tools outside the classroom can enhance academic writing while maintaining academic integrity and authenticity.

Han, Y., Yang, S., Han, S., He, W., Bao, S., & Kong, J. (2025). **Exploring the relationship among technology acceptance, learner engagement and critical thinking in the Chinese college-level EFL context**. *Education and Information Technologies*, *30*(11), 14761-14784. https://doi.org/10.1007/s10639-025-13375-1
Critical thinking (CT) has long been acknowledged as a fundamental goal of higher education, but how it associates with technology acceptance (TA) and learner engagement (LE) of Chinese learners of English as a foreign language (EFL) at the college level is underexamined. This article aimed to investigate the interrelationships among technology acceptance, learner engagement and critical thinking. Descriptive statistics generated from the questionnaire data disclosed that the 1026 participants exhibited decreasing but acceptable levels respectively in TA, LE and CT. Correlation analyses

manifested the significant effects of both technology acceptance and learner engagement on critical thinking. Regression analyses further highlighted learner engagement played as a mediator in the correlation between the other two variables. Additionally, technology acceptance was also found to mediate the influence of learner engagement on critical thinking to a minor degree. By addressing the research gap on the intricacies of the three factors stressing the bidirectionality of TA and LE, the study offered valuable pedagogical insights into engagement-enhancing integration of technology into College English course to promote learners' acceptance and proper use of technology for cultivating critical thinking at the tertiary level.

Hidayatullah, A., & Csíkos, C. (2025). **Association between psychological need satisfaction and online self-regulated learning**. *Asia Pacific Education Review*, *26*(3), 609-619. https://doi.org/10.1007/s12564-023-09910-9
The role that psychological need satisfaction and self-regulated learning play in academic online learning has been extensively researched. However, the impact of the three psychological needs, perceived autonomy, competence, and relatedness, on online self-regulated learning remains unclear. This investigated the association between the satisfaction of psychological needs and the six dimensions of online self-regulated learning. This cross-sectional study adopted a quantitative approach. In all, 315 students from four higher education institutions participated in the present study. Students were asked to complete the online questionnaire of psychological need satisfaction and an online self-regulated learning questionnaire. Structural equation modeling was performed to examine the structural relationships between the two. Our study showed that perceived autonomy predicted goal setting, environment structuring, time management, and self-evaluation but did not predict help-seeking and task strategies. Perceived competence did not predict environment structuring. Perceived relatedness predicted environment structuring, help-seeking, and self-evaluation. This study appears to be the first to examine the predictions of need satisfaction to increase students' capability in regulating their learning.

Hodis, F. A., & Hodis, G. M. (2025). **Key antecedents of maximal levels of aspiration and minimal boundary goals: a structural equation modeling analysis**. *Asia Pacific Education Review*, *26*(3), 717-731. https://doi.org/10.1007/s12564-024-09958-1
Research findings indicate that two types of goals, which focus on the lowest (highest) levels of achievement possible in a learning setting, are strong predictors of how well students attain in school. Unfortunately, little is known about how these two goals, termed minimal boundary goals (MBG) and maximal levels of aspiration (MLA) relate to psychological constructs that are theorized to be antecedents of goals. To fill this knowledge gap, this research collected data from 463 secondary-school students and tested a model linking these goals to achievement motives and theory of intelligence. Results revealed that not believing that intelligence is fixed and devoting effort to studying was associated with a strong endorsement of MLA. At the same time, making low/no efforts to study, being afraid of failure, and believing that intelligence is fixed were strong predictors of MBG. These findings advance current knowledge and have important implications for teaching and learning.

Hong, X., & Guo, L. (2025). **Effects of AI-enhanced multi-display language teaching systems on learning motivation, cognitive load management, and learner autonomy**.

Education and Information Technologies, *30*(12), 17155-17189. https://doi.org/10.1007/s10639-025-13472-1
The study investigates the effects of AI-enhanced multi-display language teaching systems on English as a Foreign Language (EFL) learners. Utilizing a pretest–posttest random assignment experimental design, the research involved 302 EFL students aged 19 to 28 in a higher education setting. The study examines the effects of AI-powered virtual tutoring, interactive language learning platforms, and AI-supported collaborative learning environments on learning motivation, cognitive load management, and learner autonomy. The results indicate significant improvements in cognitive load management, motivation, and learner autonomy among students who participated in AI-enhanced interventions compared to a control group. Notably, the group using AI-powered virtual tutoring demonstrated the greatest improvement. The findings highlight the theoretical potential of AI-enhanced environments to improve EFL learning outcomes and underscore the practical importance of integrating AI interventions in language education to enhance motivation, manage cognitive load, and foster learner autonomy.

Hossen, M. K., & Uddin, M. S. (2025). **From data to insights: Using gradient boosting classifier to optimize student engagement in online classes with explainable AI**. *Education and Information Technologies*, *30*(13), 18089-18130. https://doi.org/10.1007/s10639-025-13500-0
Online learning continues to expand due to globalization and the COVID-19 pandemic. However, maintaining student engagement in this new normal has become increasingly difficult. Conventional techniques, such as self-reports and manual observations, often fall short of capturing the subtle behaviors that indicate attentiveness. This emphasizes the necessity for sophisticated tools to assess engagement effectively. The proposed system introduces an innovative approach to monitoring student attention in online learning environments by integrating computer vision techniques with a Gradient Boosting classifier (GBC). It conducts a multimodal analysis of behavioral cues captured through a standard webcam, such as facial expressions, hand movements, mobile phone usage, and head poses, to enable a comprehensive and accurate evaluation of student engagement. With thorough validation on a dataset of 6,000 records, the GBC model outperformed traditional approaches and other machine learning algorithms by attaining an accuracy of 99.13%. Through the utilization of Explainable AI (XAI) tools such as LIME and SHAP, we increased the transparency and interpretability of our model. This allows educators to gain a better understanding of the elements that influence student engagement, hence promoting trust among all stakeholders involved. The system's focus on resource efficiency and scalability makes it adaptable to diverse educational settings without extensive infrastructure. The user-friendly web interface facilitates real-time monitoring, seamlessly integrating with popular e-learning platforms and providing detailed, anonymized reports. This enables instructors to make data-driven interventions to enhance teaching strategies and offers actionable insights to improve learning outcomes. Non-identifiable data collection meets ethical requirements while maintaining privacy and producing insightful engagement metrics.

Huang, A. Y. Q., Lin, C.-Y., Su, S.-Y., & Yang, S. J. H. (2025). **The impact of GenAI-enabled coding hints on students' programming performance and cognitive load in an SRL-based Python course**. *British Journal of Educational Technology*, *56*(5), 1942-1972. https://doi.org/10.1111/bjet.13589

Programming education often imposes a high cognitive burden on novice programmers, requiring them to master syntax, logic, and problem-solving while simultaneously managing debugging tasks. Prior knowledge is a critical factor influencing programming learning performance. A lack of foundational knowledge limits students' self-regulated learning (SRL) abilities, resulting in a performance gap between students with high and low levels of prior knowledge. To address this problem, this study developed CodeFlow Assistant (CFA), a specifically developed generative artificial intelligence (GenAI) tool that provides four levels of scaffolding guidance (flowcharts, cloze coding, basic coding solutions, and advanced coding solutions) to support novice programmers in mastering skills ranging from foundational understanding to advanced application. Through a controlled experiment comparing SRL-based, teaching assistant (TA)-assisted programming (SRLP-TA) and SRL-based, CFA-assisted programming (SRLP-CFA), this study evaluated the effect of CFA on coding performance, cognitive loads, and SRL abilities among novice programming students. The results indicated that compared with the SRLP-TA group, the SRLP-CFA group achieved statistically significantly higher coding scores but showed comparable improvements in understanding programming concepts. Moreover, CFA reduced intrinsic and extraneous cognitive loads while enhancing germane load, fostering deeper knowledge integration and engagement. These findings highlight the role of CFA in enhancing coding performance, particularly in translating conceptual understanding into practice. This tool also statistically significantly improved SRL abilities, such as intrinsic goal orientation, task value, and metacognitive self-regulation.

Jabagi, N., & Croteau, A.-M. (2025). **L'intelligence artificielle (IA) : amie ou ennemie de la motivation des étudiants et étudiantes universitaires?** *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-04
Dans cet article, nous réfléchissons aux événements et expériences entourant l'utilisation de ChatGPT et d'autres outils d'intelligence artificielle générative (IAg) pour soutenir l'apprentissage étudiant. La théorie de l'autodétermination est utilisée pour structurer nos réflexions, ce qui nous permet de comprendre comment ChatGPT peut améliorer ou diminuer l'automotivation des étudiants et étudiantes, tout en soutenant leurs besoins psychologiques. En nous inspirant de nos expériences et de la littérature émergente, nous proposons des principes directeurs pour les professeurs et professeures afin de renforcer les avantages motivationnels de ChatGPT et de l'IAg, tout en minimisant leurs impacts négatifs.

Jabali, O., Saeedi, M., & Alawneh, Y. (2025). **Navigating anxiety in academia: the role of generative artificial intelligence**. *Education and Information Technologies*, *30*(11), 15529-15544. https://doi.org/10.1007/s10639-025-13433-8
This study explores educators' perspectives on the impact of generative artificial intelligence (AI) on academic roles within Palestinian institutions. Through qualitative interviews and quantitative surveys, the research reveals significant anxiety among educators, particularly concerning the potential decline of traditional roles, educational standards, and ethical implications of AI integration. While the study sought to identify demographic differences in concerns, the analysis found no statistically significant variations among respondents. Qualitatively, the study results showed that 69.2% of respondents expressed anxiety about the reduction of traditional teaching roles, 55.8% raised concerns regarding the potential decline in educational quality. Ethical

implications, including privacy and research integrity, were significant themes, with 26.9% indicating strong concern in this area. Participants also highlighted the need for increased training and collaboration between educators and technology developers. The findings reveal a nuanced landscape where educators recognize the potential of AI to enhance educational practices while simultaneously grappling with the complexities and ethical challenges it presents. The study underscores the necessity for robust frameworks and professional development initiatives to ensure that AI adoption in academia benefits both educators and students in Palestine.

Ji, Y., Zhong, M., Lyu, S., Li, T., Niu, S., & Zhan, Z. (2025). **How does AI literacy affect individual innovative behavior: the mediating role of psychological need satisfaction, creative self-efficacy, and self-regulated learning**. *Education and Information Technologies*, *30*(11), 16133-16162. https://doi.org/10.1007/s10639-025-13437-4
The emergence of generative artificial intelligence (GAI) has significantly transformed learning patterns and innovative approaches. Human-machine (generative artificial intelligence) co-creation will become the norm, necessitating that learners possess the requisite AI literacy (AIL) to adapt to this shift. The mechanisms by which individual AIL influences innovative behavior (IB) in human-machine collaborative environments remain unclear. Therefore, this study, grounded in the Theory of Planned Behavior (TPB), employs a snowball sampling method to survey 460 university students, utilizing structural equation modeling to analyze the relationships among their AI literacy (AIL), psychological need satisfaction (PNS), creative self-efficacy (CSE), self-regulated learning (SRL), and innovative behavior (IB). The results indicate that AIL does not directly influence learners' IB. PNS, CSE, and SRL serve as mediators between AIL and IB. Furthermore, AIL influences learners' PNS and CSE in innovative activities, which in turn affects their use of SRL to adjust their innovation processes, thereby promoting the application of GAI in generating IB.

Karaca, H., Ertekin, E., & Cagiltay, K. (2025). **Investigating middle school students' eye movements on the mathematical representations: An eye-tracking study**. *Education and Information Technologies*, *30*(11), 16189-16210. https://doi.org/10.1007/s10639-025-13436-5
In mathematics education, representations are used in place of mathematical structures, ideas, or relationships to concretize, transform, and represent them. When students interact with these representations, they engage in various cognitive activities such as thinking, reasoning, understanding, remembering, problem-solving, attention, and decision-making, which are difficult to observe. Therefore, uncovering these cognitive activities is very significant for mathematics education. However, they are not easy to uncover as they cannot be directly observed. Eye tracking is an important approach that can be used to reveal cognitive activities that cannot be directly observed. This study investigated how middle school students examine representations by examining their eye movements. Eighty-five (40 girls and 45 boys) 7th-grade middle school students participated in the study. In the study, gaze durations, fixation count, and fixation duration on four different representation types: verbal representation, symbolic representation, number line representation, and counters representation were compared. The findings showed that students fixated more on the verbal representation and gazed at it for longer. However, fixation durations on the verbal representation were quite short compared to the other representations. In contrast, when examining the counters, there were fewer fixations and shorter gaze durations, but fixation durations

were longer. Gazes on the number line and symbolic representation did not differ across all three variables. The findings indicated that gaze on verbal and non-verbal representations differed to some extent, but not entirely. Finally, the findings are discussed in the context of mathematical representation and eye-tracking literature.

Kipruto, T., Waga, E., Kim, J., & Elsamahi, M. (2025). ***Supporting adolescent girls' well-being in climate- and conflict-affected areas of East and West Africa*** (p. 1-7). Consulté à l'adresse SPARC website: https://www.sparc-knowledge.org/publications-resources/supporting-adolescent-girls-well-being
This policy brief synthesises evidence on interventions to support the financial and psychosocial wellbeing of adolescent girls in vulnerable pastoral areas, highlighting gaps to inform future programmes and policies.

Kiziltaş, Y., & Kultas, E. (2025). **The effect of web 2.0 tools on primary school students' writing motivation and their role in developing creative writing skills**. *Education and Information Technologies*, *30*(11), 15993-16022. https://doi.org/10.1007/s10639-025-13419-6
Web 2.0 tools for teaching purposes in schools are quite common. With Web 2.0 tools, students have the opportunity to both have fun and learn. Thus, students' willingness and motivation towards writing increases. Students whose writing motivation increases can write creatively in the process. The main purpose of this research is to reveal the effects of Web 2.0 tools on primary school students' writing motivation and their role in developing their creative writing skills. For these purposes, a quasi-experimental design model with a pretest-posttest control group was applied in the current study. Storyboard That and Storyjumper Web 2.0 tools were used in the research. During the research, creative writing activities were carried out in digital environments in the experimental group. In contrast, creative writing activities were carried out with paper and pencil in the control group. The research revealed that Web 2.0 tools improved creative writing skills. In addition, there was a significant difference in students' post-test scores and writing motivation compared to the pre-test. It was concluded that Web 2.0 tools were effective in writing motivation. The development of students' creative writing skills was another important result.

Klokočka, J. (2025). **Spiritual well-being of pupils and students: A systematic review of current empirical research**. *International Journal of Educational Research*, *133*, 102689. https://doi.org/10.1016/j.ijer.2025.102689
The exploration of spiritual well-being within the field of education is increasingly recognised as crucial, with empirical research underscoring its beneficial influence on multiple dimensions of the educational experience. While the role of spiritual well-being in varied educational contexts has been extensively discussed by scholars and highlighted in earlier review studies, a significant gap remains: few reviews have examined its relevance within mainstream education, particularly concerning younger populations. This study seeks to address that gap by systematically reviewing empirical research on the spiritual well-being of pupils and students in mainstream educational settings. The review follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines to ensure a rigorous synthesis of research topics, contexts, methodologies, and principal findings. From a total of 468 articles published between 2014 and 2024 and sourced through the Web of Science and Scopus databases, 50 studies met the inclusion criteria. The predominant focus across these studies was the relationship between spiritual well-being and psychological phenomena. Most research

concentrated on students in secondary and tertiary education, employing primarily quantitative methods, particularly questionnaire-based surveys. Findings consistently point to the positive contributions of spiritual well-being to students' mental health and their overall educational engagement. However, direct comparison across studies is hindered by inconsistencies in terminology and difficulties in the operationalisation of key constructs.

Lee, S., Lee, Y., Park, S.-Y., & Ham, E. H. (2025). **Exploring the dynamics of self-regulated learning in online courses: trajectories of self-regulated learning and the role of basic psychological needs satisfaction across different achievement levels**. *Education and Information Technologies*, *30*(12), 16861-16891. https://doi.org/10.1007/s10639-025-13443-6

This study aimed to investigate the trajectories of students' self-regulated learning in an online course and the predictive role of students' satisfaction with basic psychological needs (autonomy, competence, relatedness) on these trajectories. Additionally, the potential variation in the relationship between basic psychological needs and self-regulated learning based on students' achievement levels was examined. The analysis of data revealed a significant increase in students' self-regulated learning scores throughout the three-month course. Data from 1,105 elementary and middle school students participating in an online learning program were collected over four 12-week periods. This study confirmed the increase in learners' self-regulated learning in an online learning environment over a 12-week period. The study found that autonomy, competence, and relatedness were related to the initial value of self-regulated learning but did not significantly influence the growth of self-regulated learning over the course. The study also found that the relationship between basic psychological needs and self-regulated learning varied among different achievement groups. Autonomy and competence played a significant role in predicting the initial level of self-regulated learning in all groups, regardless of achievement level, whereas relatedness had the most substantial effect for the high-achieving group.

Leopold, A., Schulz, K., Burkard, A., Köller, M. M., & Renger, D. (2025). **The lack of fit framework in school: girls' perceived misfit and its consequences in a male-stereotyped discipline**. *Social Psychology of Education*, *28*(1), 138. https://doi.org/10.1007/s11218-025-10094-w

Due to the leaky pipeline, i.e., the continuous decline in the number of women along the academic career path, women are still underrepresented in many academic disciplines like STEM and philosophy. One theoretical model that explains this is the lack of fit framework (Heilman, Sex bias in work settings: The lack of fit model; Heilman & Caleo, Combatting gender discrimination: A lack of fit framework). According to this, women in male-stereotyped disciplines perceive a misfit to the person stereotypical for the discipline. This perceived misfit has been associated with a lower sense of belonging and thus less engagement, intention to persist, and probability of choosing a career in the discipline. So far, the Lack of Fit Model has been studied in work and university contexts but not in schools. In the present study, we applied the lack of fit framework to secondary school, focusing on high school students (N = 523) and their perception of philosophy (a highly male-stereotyped discipline). We showed that female high school students have a higher perceived self-philosopher misfit than male high school students. Using a structural equation model, we showed that this gender-discipline misfit correlates with less engagement and lower intention to persist and possibly career choice via a lower

sense of belonging. The results extend previous findings on the lack of fit framework to the school context.

Li, B. Y. M., Bae, Y., Wu, Y.-J., Chen, C.-W., & Wu, Y.-J. (2025). **Examining student, parent, and school factors predicting science achievement using a multilevel approach: the case of Hong Kong from the Program for International Student Assessment 2015**. *Asia Pacific Education Review*, *26*(3), 669-686. https://doi.org/10.1007/s12564-024-09929-6
This study utilizes the 2015 data from the Hong Kong sample of the Program for International Student Assessment to examine the relative importance of various factors on the science learning performance of Hong Kong students. Using hierarchical linear modeling (HLM), we examined the effect of students' affective characteristics, involvement, and perceptions of science by parents and school environment on science achievement in Hong Kong. The results of HLM demonstrated that school characteristics explain 33% variance in science achievement, which indicates that school is a critical predicting factor in identifying science achievement. The findings highlighted that identifying as male, having high socioeconomic status (at the student and school levels), high self-efficacy, low test anxiety, less parental support, positive view of science by parents, more school resources, and less teacher autonomy positively influence the science achievement of students. In the final model, school-level predictors, such as disciplinary climate in science classes and teacher-directed science instruction, explained 58% of variance at the school level in positive directions. Lastly, the study discussed the implications of achievement gaps between gender and socioeconomic status and between parents and school influence.

Li, C., & Lyu, B. (2025). **Investigating the motivational and knowledge affordances of conversational AI using induction, concretization and exemplification in math learning**. *British Journal of Educational Technology*, *56*(5), 1814-1841. https://doi.org/10.1111/bjet.13612
A promising approach to support students' math learning effectively, automatically and at scale within existing learning environments is conversational artificial intelligence (ConvAI). Although previous studies have suggested ConvAI's potential to guide, facilitate and enhance learning, its effects on students' conceptual change and academic motivation—the latter a crucial moderator of conceptual change—in math education remain understudied. Our study expands understanding of how ConvAI can be used to support Algebra learning from a conceptual change perspective. Using a between-subjects, pre- and posttest design, we conducted an experimental study with 151 participants, with the experimental group accessing ConvAI developed with induction, concretization and exemplification teaching strategies. Results showed that participants in the ConvAI group exhibited higher mastery goal orientation and self-efficacy compared with the control group post-intervention. The frequency of visiting recommended learning resources by ConvAI significantly predicted participants' motivation changes, with increased visits correlating with higher motivation. Additionally, although there was no significant main effect on misconceptions between ConvAI and no-AI participants, significant interaction effects on misconceptions emerged between treatment conditions and student motivation. Our findings, revealed through open-sourced implementations, provide support and implications for educational practitioners and researchers to design and develop pedagogically meaningful ConvAI for math learning.

Liao, L., & Li, A. (2025). **Subjective Well-Being and Education in China: The Moderating Role of Educational Position**. *Journal of Happiness Studies*, *26*(6), 84. https://doi.org/10.1007/s10902-025-00913-4
Previous research consistently highlights the link between educational attainment and subjective wellbeing, positioning education as a significant indicator of life satisfaction. However, the pathways through which education influences wellbeing, particularly the concept of education as a positional good, remain underexplored. This study applies six waves of data from Chinese General Social Survey and utilizes the data from China Population and Employment Statistical Yearbook to evaluate relative educational standing. By incorporating Educational Competitive Advantage Scores, as a measure of educational position from the Chinese General Social Survey into a Hierarchical Linear Model, we investigate the interplay between educational position, income, and subjective wellbeing. The results suggest that individuals with higher educational positions report significantly better subjective wellbeing. In addition, educational position also modifies how the absolute educational attainment (years of schooling) and income make an impact on subjective wellbeing. This study contributes to the growing literature on educational attainment and subjective wellbeing against the backdrop of rapid educational expansion and credential inflation, offering insights into the how both the absolute and relative educational attainment make a difference on subjective wellbeing in the Chinese context.

Ling, T. (2025). **Developmental Trajectories of Students' Life Satisfaction and Reciprocal Relations with Parental Autonomy Support in Elementary and Secondary School**. *Journal of Happiness Studies*, *26*(6), 111. https://doi.org/10.1007/s10902-025-00945-w
Life satisfaction has received increasing attention in psychological research, but there remain mixed results about the developmental trajectories of students' life satisfaction, and little is known about the potential reciprocal relations between parental autonomy support and life satisfaction. Using information from nationally representative elementary school students (Grade 4–6, N = 2607, k = 171 schools) and secondary school students (Grade 7–9, N = 2590, k = 162 schools) in South Korea, the current study examined the developmental trajectories of students' life satisfaction and the relations between life satisfaction and parental autonomy support. Latent neighbor change models showed that life satisfaction decreased for both elementary and secondary school students. Latent cross-lagged panel models showed that parental autonomy support and life satisfaction were reciprocally linked over time among secondary school students. Parental autonomy support predicted subsequent life satisfaction, and life satisfaction positively predicted parental autonomy support. However, the effects of parental autonomy support on subsequent life satisfaction were not significant for elementary school students. Parental autonomy support tended to increase in importance from elementary to secondary school. Moreover, sensitivity analyses indicated gender differences in the development of life satisfaction. These findings contribute to ongoing research to develop more tailored programs to support the life satisfaction of struggling students.

Liu, W. C., Kong, L. C., Wang, C. K. J., Kee, Y. H., Ng, B., Lam, K., & Reeve, J. (2025). **A qualitative examination into the school-related factors affecting teachers' motivating styles**. *Asia Pacific Education Review*, *26*(3), 795-810. https://doi.org/10.1007/s12564-025-10047-0

The Self-Determination Theory posits that an autonomy-supportive motivating style can benefit students in numerous educationally important ways. The paradox and educational concern is that although teachers are cognizant that students can reap numerous benefits when they support their students' autonomy, many of them are nevertheless unable to do so. This can be explained by the implicit and explicit forces imposed on them from their external and internal environments. This paper investigated the school-related factors that affect teachers' adoption and employment of autonomy-supportive motivating style. To achieve the objective, we interviewed 59 mathematics and/or science teachers (Myears of teaching = 10.8, 62.71% female) from 17 secondary schools in Singapore. We identified several school-related factors that could affect the teachers' motivating styles, namely, "time pressures", "support from school leaders", "support from colleagues" and the "time of the year (timing)". Because autonomy-support is important for students' motivation and learning, a better understanding of the school-related factors that affect the teachers' motivating style would be helpful in creating a context that allows the teachers to be more supportive of their students' autonomy.

Ma, L., & Xu, L. (2025). **Critical thinking dispositions and foreign language learning: A moderated mediation analysis of self-efficacy and gender**. *International Journal of Educational Research*, *133*, 102740. https://doi.org/10.1016/j.ijer.2025.102740
Previous studies have established an association between critical thinking (CT) dispositions and foreign language (FL) achievement. However, the indirect mechanisms underlying this relationship remain underexplored. Grounded in social cognitive theory, this study investigated the mediating role of self-efficacy in the link between CT dispositions and FL achievement, and further examined how gender moderates this indirect pathway using a moderated mediation approach. A cohort of 16,006 secondary school students from Beijing, China (grades 7 to 12), with an average age of 14.84 years (SD = 1.42), participated in the study. Data on CT dispositions, self-efficacy, FL achievement, and gender were collected through student self-reports. The mediation analysis indicated that self-efficacy partially mediated the association between CT dispositions and FL achievement. The moderated mediation analysis further demonstrated that the mediation effect was significantly stronger among male students. These findings provide significant insights into FL teaching and learning and contribute to a deeper understanding of social cognitive theory within the context of FL education.

Maloshonok, N., Shcheglova, I., & Dremova, O. (2025). **What Is a "Healthy" Balance Between Students' Involvement in Curricular and Extracurricular Activities? Evidence From a Highly Selective Russian University**. *European Journal of Education*, *60*(3), e70138. https://doi.org/10.1111/ejed.70138
Although many researchers and policy-makers emphasise the benefits of extracurricular involvement, others state that intense extracurricular involvement might be harmful to students' achievements and development. This paper aims to estimate the "healthy" time proportion between curricular and extracurricular activities at university and what patterns of their combination with students' activities outside of campus can positively affect students' academic performance and mental health. Data from an undergraduate survey conducted at a highly selective Russian university and matched with administrative records about students' GPA (N = 2753) were utilised. The study revealed that there are cut-off points for student participation in research activities and applied projects at university, as well as volunteering and organising activities. After these

cut-off points are reached, the positive effects of extracurricular involvement disappear. The findings highlight the importance of maintaining a balance between both curricular and extracurricular activities as well as making time for sleeping, socialising and leisure activities. This study provides valuable insights into optimising student involvement in activities, offering actionable recommendations for educational policy-makers and university administrators to increase student well-being and academic performance.

Malroux, I., Panico, L., & Kelly-Irving, M. (2024). **Inégalités de genre et de classe sociale dans le développement psychomoteur des enfants : une approche sociologique**. *Population*, *79*(4), 531-562. https://doi.org/10.3917/popu.2404.0531
Au cours de la petite enfance, les apprentissages corporels, langagiers et moteurs varient selon les caractéristiques sociales des enfants et de leurs familles. Cet article propose une description des inégalités dans les apprentissages en fonction du genre, de la classe sociale et à l'intersection de ces deux rapports sociaux. L'étude s'appuie sur une vaste enquête portant sur plus de 18 000 enfants nés en France hexagonale, la cohorte Elfe dont les données ont été recueillies auprès d'enfants à l'âge de 3 ans et demi ; elle mesure les compétences enfantines dans les domaines suivants : le langage, la motricité, l'autonomie corporelle, la sociabilité, la numération et l'écriture. Les résultats obtenus entrent en résonance avec la littérature relative à la différenciation des apprentissages les plus rentables scolairement, en soulignant notamment le gradient social du développement langagier. Ils mettent toutefois en lumière l'inversion de ce gradient social dans le domaine de l'autonomie corporelle.

Máté, D., Kiss, J. T., & Csernoch, M. (2025). **Cognitive biases in user experience and spreadsheet programming**. *Education and Information Technologies*, *30*(11), 14821-14851. https://doi.org/10.1007/s10639-025-13392-0
The impact of cognitive biases, particularly biased self-assessment, on learning outcomes and decision-making in higher education is of great significance. This study delves into the confluence of cognitive biases and user experience in spreadsheet programming as a crucial IT skill across various academic disciplines. Through a quantitative analysis, we investigate whether structured learning in spreadsheet programming can counteract self-assessment biases among higher education students. Specifically, our focus is on scrutinizing the accuracy of self-assessment in Excel proficiency among professional STEM students at the University of Debrecen, Hungary, by comparing traditional written and digital assessments. Our findings reveal that while high-achieving students tend to exhibit more accurate self-assessments, many students have a pervasive tendency to overestimate their spreadsheet competencies. These results emphasize the necessity for educational strategies that acknowledge cognitive biases in self-assessment, with far-reaching implications for curriculum design and lean management in higher education, by integrating evidence-based approaches to enhance digital competencies. This study makes a valuable contribution to the broader dialogue on improving learning outcomes and user experience in spreadsheet programming. Additionally, the research provides valuable insights for educators and policymakers, advocating for pedagogical adjustments that can assist students in better evaluating their skills and knowledge, thereby promoting more precise self-assessment practices.

Matthes, J., Scherrer, V., & Preckel, F. (2025). **Need for Cognition Predicts Academic Interest Development but Not the Other Way Around: A Longitudinal Study of Secondary**

School Students. *Child Development*, *96*(5), 1675-1687. https://doi.org/10.1111/cdev.14262
Need for cognition (NFC) reflects the tendency to enjoy and engage in cognitive challenges. This study examines the relations between NFC and academic interest among 922 German secondary school students (academic track) assessed four times in Grades 5–7 (initial age M = 10.63, SD = 0.55; 41% female; 90% first language German) in mathematics, German, and English. Data were collected between 2008 and 2012 and were analyzed using autoregressive cross-lagged panel models. In all domains, NFC positively predicted subsequent academic interest (β = 0.03 to β = 0.17) but interest did not positively predict subsequent NFC. Findings were comparable after controlling for students' achievement, gender, socioeconomic status, and class type. They suggest that NFC is a potential facilitator of the development of academic interest in school.

Mellati, M., & Valizadeh, M. (2025). **Exploring the emotional landscape: How graduate students' views on social networks influence their engagement in tech-enhanced learning environments**. *Education and Information Technologies*, *30*(12), 16269-16290. https://doi.org/10.1007/s10639-025-13613-6
This research investigates how tertiary students' views on social networks for learning purposes relate to their emotional reactions and their level of academic involvement in technology-supported learning environments. A total of 890 Iranian EFL (English as a Foreign Language) students from five provinces (Esfahan, Tehran, Markazi, Shiraz, Khorasan Razavi, and Tabriz) were invited to participate, yielding 521 valid responses. Three instruments were employed: a Social Media Usage and Perceptions Questionnaire, an Academic Engagement Questionnaire, and a Learners' Emotion Questionnaire. The SEM analysis was performed using SPSS version 27 and AMOS version 24; incorporated various techniques, including correlation, regression, and factor analysis. The findings indicate a positive relationship between students' favorable perceptions of social networks and their positive emotions, which significantly contribute to higher academic engagement in tech-enhanced learning environments. Conversely, the study found that negative perceptions of social networks are associated with negative emotions, which diminish students' academic engagement. These results highlight the dual role of social networks in shaping both emotional experiences and learning outcomes in modern educational settings.

Meth, D. (2025). **Quality as Illusion? Considering Hidden Trade-Offs and Risks in Undergraduate Education Conceptualised as 'Regulated Play'**. *Higher Education Quarterly*, *79*(3), e70028. https://doi.org/10.1111/hequ.70028
In-depth interviews exploring academics' teaching practices and views on undergraduate education at one English university reveal concerning examples of educational trade-offs in delivering on national and institutional quality expectations. Evidence reveals the negative impacts on teaching and students' learning and achievements. Quality instruments reflect their neoliberal managerialist environment, its internal structures of power, organisation and monitoring and are viewed through Foucault's concept of governmentality. Academics' responses align with a post-Foucauldian construct reflecting their negotiating behaviours in this space. A new conceptual model extends on Docherty's construct of 'contained' play to capture ways in which institutional quality systems and structures might restrict learning. The questions, 'what lies hidden from the gaze of traditional quality measures?' and 'where does the real risk to quality lie?' are asked, revealing quality to be illusory in some instances.

Findings reinforce the critical need to better understand teaching academics' experiences as key mediators in this area.

Moreno, M., Grewal, K., Cutumisu, M., & Harley, J. M. (2025). **Employing Machine Learning to Predict Medical Trainees' Psychophysiological Responses and Self- and Socially-Shared Regulated Learning Strategies While Completing Medical Simulations**. *Educational Psychology Review*, *37*(3), 70. https://doi.org/10.1007/s10648-025-10044-0
Medical simulations allow medical trainees to work within teams to develop their self-regulated learning (SRL) and socially shared regulated learning (SSRL) skills. These skills are imperative in optimizing performance and teamwork and could be reflected in physiological responses given by learners. This study examines how medical trainees' self-regulatory patterns can predict their psychophysiological responses, specifically their electrodermal activity (EDA), by employing supervised machine learning (ML). Sixty-two (N = 62) medical residents at a Canadian university participated in this study. Participants were grouped into 19 teams, with each completing one medical simulation with an appointed "leader" and "team members." Simulations were part of medical residents' curriculum and used high-fidelity manikins capable of mimicking physiological activity as "patients." Audio-video recordings of each simulation were coded for (1) behaviors (posture and gestures, facial expressions, and vocalics) and (2) regulation strategies, including SRL and SSRL, derived and adapted from the literature to fit a medical context. Psychophysiological measurement of EDA was collected using Empatica E4 bracelets throughout the simulations. Raters coded the regulatory interactions between the "leader" and "team member" at the "beginning," "escalation," and "peak" of each simulation. Results indicated that varying SRL and SSRL codes could predict EDA based on the regulatory needs of learners at different segments of the simulation. These findings contribute to the literature on applying ML modeling to predict psychophysiological responses of learners and to furthering our understanding of the use of predictive modeling within multimodal data in naturalistic learning environments.

Mouchabac, S., Adrien, V., Diot, T., Renaud, M.-C., Carrié, A., Bourla, A., & Ferreri, F. (2024). **Insights into medical students' perceptions of work culture during the COVID-19 pandemic: a mixed method study**. *BMC Medical Education*, *24*(1), 21. https://doi.org/10.1186/s12909-023-04936-4
Background The COVID-19 pandemic brought about profound social changes that affected students worldwide. These changes had both psychological and economic consequences, and also led to the adoption of new teaching methods. It can also have an impact on work culture, which is the collective set of values, norms, and practices within a specific profession, shaping how individuals in that field behave, communicate, and identify with their work. The aim of the study was to examine medical students' perception of professional culture during the COVID-19 crisis when they voluntarily participated in the healthcare network established, outside of university placements, for the management of COVID patients. Methods A questionnaire study based on the vignette methodology was conducted among third-year medical students. Drawing from three scenarios in which students were variably engaged in crisis management, it included questions about their perceptions of the medical profession, their motivation, and their sense of belonging to the profession. Results 352 students responded to the survey. The pandemic had both a positive and a negative impact on students' perceptions of the medical profession. Cluster analysis using a k -means algorithm and principal component analysis revealed three clusters of students with different

perceptions of the medical profession. The first cluster, which represented the majority of students, corresponded to a relatively positive perception of the profession that was reinforced during the pandemic. In the second cluster, students' perceptions were reinforced still further, and particular importance was attached to field experience. Students in the third cluster had the most negative perceptions, having been shaken the most by the pandemic, and they attached little importance to field experience. Conclusions The analysis highlighted the importance of students being able to adapt and draw on a range of resources during the COVID-19 pandemic. This underscores the need for work cultures that support adaptability and coping. Further research is needed to understand its long-term effects on students' perceptions of the medical profession and to identify interventions that could support students in the aftermath of this difficult period.

Müller, S. M., & Bittermann, A. (2025). **The Emotional Climate of Academia: Exploring Social Media Data as an Indicator of Well-Being**. *Journal of Happiness Studies*, *26*(6), 96. https://doi.org/10.1007/s10902-025-00902-7
Understanding and promoting researchers' well-being is crucial for successful research outcomes and a thriving scientific community. Traditional well-being assessments can be resource-intensive, but prior research suggests that sentiment analysis of social media text data can provide insights into the emotional well-being in the general population. In this proof-of-concept study, we explore whether social media sentiment can serve as an indicator of researchers'well-being on a group-level. Specifically, we analyze the emotional climate of the academic community by applying sentiment analysis to a dataset of more than 3.48 Million messages from 14,876 psychology researchers, posted on the platform Twitter/X between 2019 and 2021. As this period is one year before and after the onset of the coronavirus pandemic, we used the findings from COVID-19 research to derive two hypotheses: lower well-being during the pandemic is reflected in more positive/less negative sentiment in researchers'social media posts (H1), and a stronger impact on female researchers is reflected in even more positive/less negative sentiment in female researchers' posts (H2). Using structural break analysis, the impact of the pandemic was found to be statistically significant for positive sentiments. A differential effect by gender was observed descriptively, but did not reach statistical significance. The results suggest a positivity bias in scholarly communication on Twitter/X, with only changes in positive sentiments as an indicator of researchers'emotional well-being. Gender differences were found for general sentiment magnitude, but not in the effect of the pandemic. Exploratory analysis of cognitive well-being revealed relationships and accomplishment as the predominant PERMA + 4 dimensions in researchers' posts. We discuss promising expansions of our approach and highlight practical implications for policymakers.

Neshaei, S. P., Mejia-Domenzain, P., Davis, R. L., & Käser, T. (2025). **Metacognition meets AI: Empowering reflective writing with large language models**. *British Journal of Educational Technology*, *56*(5), 1864-1896. https://doi.org/10.1111/bjet.13601
Reflective writing is known as a useful method in learning sciences to improve the metacognitive skills of students. However, students struggle to structure their reflections properly, limiting the possible learning gains. Previous works in educational technologies literature have explored the paradigms of learning from worked and modelling examples, but (a) their application to the domain of reflective writing is rare, (b) such methods might not scale properly to large-scale classrooms, and (c) they do not necessarily take the learning needs of each student into account. In this work, we suggest

two approaches of integrating AI-enabled support in digital systems designed around learning from worked and modelling examples paradigms, to provide personalized learning and feedback to students using large language models (LLMs). We evaluate Reflectium, our reflective writing assistant, show benefits of integrating AI support into the learning from examples modalities and compare the perception of the users and their interaction behaviour when using each version of our tool. Our work sheds light on the applicability of generative LLMs to different types of providing support using the learning from examples paradigm, in the domain of reflective writing. Practitioner notes What is already known about this topic Reflective writing fosters metacognitive skills and improves learning gains and personal growth. The learning from worked and modelling examples paradigms is effective for skill acquisition and applying the acquired knowledge. Existing reflective writing assistants usually lack dynamic, AI-driven feedback or interactivity, limiting personalization and adaptability to each user's own needs in the learning process. What this paper adds It introduces Reflectium, an AI-enabled reflective writing assistant, integrating intelligent and interactive writing support for both the learning from worked and modelling examples paradigms. It demonstrates the use of a fine-tuned large language model (LLM) for providing feedback in the learning from worked examples version, and an LLM-powered conversational agent simulating instructor interactions for the learning from modelling examples version. It reports findings from a user study comparing the positive impact of artificial intelligence (AI) support on learners' performance, interaction behaviour and learning experience. Implications for practice and/or policy Digital tutoring systems for teaching reflective writing using the learning from worked examples paradigm should incorporate adaptive AI feedback to enhance learning gains. Conversational agents simulating peers/instructors and powered by LLMs can provide scalable, interactive support for learning from modelling examples, notably in large-scale educational settings. Reflective writing tools should be evaluated for their impact on different aspects of the learning process, such as task performance, interaction behaviour and user experience, to guide future improvements. Educators and policymakers should consider the integration of AI-driven reflective writing tools into teaching curricula to enhance reflective practices and metacognitive skill development.

Ng, Z. J., Lin, S., & Cipriano, C. (2025). **Emotion-specificity in emotion regulation: Links to psychosocial and academic functioning in early adolescence**. *International Journal of Educational Research*, *133*, 102754. https://doi.org/10.1016/j.ijer.2025.102754
Despite the intimate links between the dysregulation of specific emotions and diagnosis of certain psychopathologies during adolescence, emotion specificity in adolescent emotion regulation remains under-explored. Adopting a person-centered approach, this study identifies profiles of perceived anger, sadness, and worry regulation, and examines how those profiles are related to academic and psychosocial functioning, with a large school sample of early adolescents (45 % female; 47 % male; 4 % non-binary; 31 % sixth grade; 31 % seventh grade; 37 % eighth grade) in the United States. Cluster sampling was conducted. Results from latent profile analysis indicate that a five-profile solution best fits the data: High emotion-general regulation (24.85 %); Average emotion-general regulation (28.57 %); Low emotion-general regulation (12.53 %); Low anger and sadness regulation (25.36 %); and Low worry regulation (8.70 %). Results from latent class modeling (BCH procedure) show that High emotion-general regulation profile has the best outcomes, while Low emotion-general regulation profile has the worst outcomes. Adolescents in the Low anger regulation and Low sadness regulation profile report low

persistence and high self-handicapping. Adolescents in the Low worry regulation profile indicate low persistence and high disengagement. Furthermore, female adolescents are under-represented in both Average emotion-general and High emotion-general profiles. Practical implications for understanding and supporting emotion regulation among adolescent students are discussed.

Nguyen, B.-P. T., Le, H. M., & Duong, B.-H. (2025). **"Why do I risk my professional reputation to do it?" Vietnamese teachers' motivations and identities in relation to private tutoring**. *Asia Pacific Education Review*, *26*(3), 781-794. https://doi.org/10.1007/s12564-025-10046-1
Private tutoring is a fact of life in many education systems, including Vietnam. However, limited scholarly attention has been paid to this phenomenon in Vietnam from the perspective of teachers who provide private tutoring, whilst public discourse mainly criticises them for being 'corrupted' and greedy. Our study responds to this research gap using a conceptual lens that focuses on teacher motivations, professionalism, and teacher identities as mediated by the neoliberalisation of education. A qualitative case study methodology was employed to examine the motivations of Vietnamese teachers who offer private tutoring and how those motivations reflect and/or challenge their broader sense of teacher identities. The findings shed light on how teacher motivations in private tutoring are largely driven by teacher–student bonds and demands for high academic performance. Also, fully acknowledging the clash between imperatives of educational equality/equity and the potential of unethical issues, teachers have their own ways to reconcile their ethics with private tutoring. Even in private tutoring lessons, they are still supposed to fulfil their duties, which shows a Vietnamese dimension of the 'struggle for the teacher's soul' currently waged around the world under the pressure of neoliberalism in education.

Ning, Y., Zheng, H., Wu, H., Jin, Z., Chang, H., & Wijaya, T. T. (2025). **Analysis of influencing factors on teachers' AI literacy under the SOR framework: An empirical study based on PLS-SEM and fsQCA**. *Education and Information Technologies*, *30*(13), 18213-18239. https://doi.org/10.1007/s10639-025-13477-w
This study, grounded in the stimulus-organism-response (SOR) theory, aims to explore how stimulus factors (school support) influence cognitive organisms (psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI), which in turn enhance behavioral responses (AI literacy), while also examining the detrimental effects of AI anxiety. A cross-sectional design was employed, utilizing sample data from 1,518 teachers. The results of PLS-SEM indicate that school support exerts a significant positive impact on psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI. These cognitive factors, in turn, significantly enhance AI literacy. However, while AI anxiety negatively affects these cognitive factors, it does not exhibit a significant direct impact on AI literacy. Additionally, the study reveals the mediating roles of psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI in the relationship between school support and AI literacy. The findings of fsQCA identify five high-level configurational pathways and one non-high-level pathway, demonstrating an asymmetric relationship between these configurations. The consistency values of all six pathways exceed 0.9, indicating that these configurations are sufficient conditions influencing teachers' AI literacy. This study provides a theoretical framework for analyzing factors affecting teachers' AI literacy and offers practical guidance for policy interventions and innovative practices to enhance teachers' AI literacy.

Nurmukhamed, D., Chegenbayeva, A., Nurumov, K., & Hernández-Torrano, D. (2025). **Stress stemming from educational reforms as a key determinant of teacher's turnover intentions: evidence from TALIS 2018**. *Quality & Quantity*, *59*(3), 2361-2380. https://doi.org/10.1007/s11135-025-02083-0

It is widely believed that stress can affect teachers' intention to change the workplace. This study investigates the implementation of educational policies and reforms as one of the key determinants of teachers' intention to leave schools in Kazakhstan. Kazakhstan presents a unique case since the country endorsed several educational policies in recent years which directly impacted teaching and administrative practices within schools. Using the Teaching and Learning International Survey 2018 (TALIS) data with the country-specific questionnaire from a complex sample of 6566 teachers nested within 331 schools, this study constructs a statistical measure of external stress caused by the implementation of educational policies and test its impact on teachers' intention to leave through a Bayesian multilevel logistic regression model. In addition, the analysis controls for sociodemographic, professional, and students related covariates, while considering the intrinsic dimension of stress stemming from workload, student behavior and expectation. Overall, the results suggest that stress caused by educational policies has a statistically significant positive effect on teachers' intentions to transfer between schools, beyond and above teacher and student variables and intrinsic sources of stress. The results are discussed, and implications for researchers and policy makers to develop evidence-based policy interventions aimed at increasing teacher retention in contexts with intensive educational reforms are presented.

Pandya, S. P. (2025). **Blended pedagogies in practice-based courses in undergraduate education: Exploring academic motivation, student self-regulation, and metacognition**. *International Journal of Educational Research*, *133*, 102655. https://doi.org/10.1016/j.ijer.2025.102655

Blended learning requires different proficiencies from learners and there is limited evidence on blended learning for undergraduate students specifically in practice-based courses. Within the personalised learning frame in virtual academic environments, journal writing and mindfulness interventions are gaining prominence. This study examines the impact of mindfulness sessions on learner motivation, self-regulation, and metacognition of undergraduate students from select practice-based courses (social work, nursing, engineering, architecture, fine arts) in select South Asian cities, compared to journal writing, both delivered online. Mindfulness sessions were more impactful and participants' gender, year of study, family configuration, apprenticeship engagements, and program compliance were significant predictors. Female students, in advanced or final years of their studies, belonging to single-parent families, not doing apprenticeship alongside study, showing prudent compliance with mindfulness sessions and completing higher number of corresponding homework sessions, gained most. Mindfulness sessions could be incorporated in undergraduate practice-based courses, and their blended learning curricula in particular, to improve learner motivation, self-regulation, and metacognition. Emphasis would need to be laid on intervention compliance and some modifications would be needed for male students, students in their early years of undergraduate study, cohabiting with both parents and siblings, and doing apprenticeship alongside study.

Park, H. Y., & Moon, H. (2025). **Parenting in Academia: Unequal Pathways to Collaboration for Doctoral Students in South Korea**. *Higher Education Quarterly*, *79*(3), e70041. https://doi.org/10.1111/hequ.70041
This study explores the challenges faced by parenting doctoral students, focusing on their research collaboration experiences, collaborative competency, and barriers to develop collaborative competency in comparison to their non-parenting counterparts. The research employs data collected through an online survey of doctoral students at a leading research university in South Korea in 2024. The results reveal that female parenting students report lower participation in international collaborations and face greater barriers in developing global competencies compared to male and non-parenting students. However, parenting students, particularly females, exhibit higher levels of self-perceived collaborative skills and attitudes. Notably, these differences are more pronounced in non-STEM fields, with no significant sex or parenting effects observed in STEM fields. The study highlights the need for higher education institutions to ensure that research collaboration opportunities are equally accessible to all students regardless of parenting status, sex, or discipline. The findings are timely given the global concern over declining fertility rates and their potential impact on the academia.

Pereira, P. D., Heitink, M. C., Schildkamp, K., & Veldkamp, B. P. (2025). **The M-PerFeCt questionnaire: assessing higher education students' motivation in a peer feedback context**. *Quality & Quantity*, *59*(3), 2577-2621. https://doi.org/10.1007/s11135-025-02084-z
In higher education, teacher feedback has increasingly been replaced or complemented with peer feedback. But, when students lack motivation, they may not participate in the peer feedback activity adequately, and, thus, the activity may not have the desired effect. Motivation is a complex, difficult-to-measure concept, and existing questionnaires for assessing students' motivation in the context of a peer feedback intervention in higher education have each considered only a few aspects of motivation to learn or motivation to participate in the peer feedback activity. However, a questionnaire that concurrently assesses (almost) all aspects of higher education students' motivation in a peer feedback context is needed for researchers and practitioners to obtain a complete picture of students' motivation, so they can determine whether and how this motivation needs to be improved. Therefore, this study aimed to develop the Motivation in a Peer Feedback Context (M-PerFeCt) questionnaire. Methodological pluralism was used to capture this complex concept while ensuring more rigorous scientific results, including eliciting a student and expert appraisal of the questionnaire and collecting responses to the questionnaire from higher education students in The Netherlands and performing exploratory and confirmatory factor analyses. Pre-activity and post-activity forms of the questionnaire were developed and validated. The final questionnaire comprised 66 items in 19 scales. The questionnaire provides insight into the underlying structure of students' motivation in a peer feedback context. Additionally, it enables teachers and researchers to assess students' motivation in a peer feedback context.

Pérez-Marco, M., Gonzálvez, C., Fuster, A., & Vicent, M. (2025). **Identifying Functional Profiles of School Refusal and Perfectionism in Adolescents**. *European Journal of Education*, *60*(3), e70201. https://doi.org/10.1111/ejed.70201
Due to the complex construct of school refusal and the need for awareness of its impact on youth, Kearney and Silverman (1990) proposed four functional reasons for the persistence of school refusal behaviour. Various studies have explored different profiles

of school refusal based on Kearney and Silverman's (1990) framework, yet no prior research has examined the relationship between these profiles and perfectionism. Perfectionism, a multifaceted personality trait, is described by the pursuit of flawlessness and setting excessively high standards (Self-Oriented Perfectionism–Striving, SOP–S), along with harsh self-criticism (Self-Oriented Perfectionism–Critical, SOP–C), and perceived external pressures and criticism (Socially Prescribed Perfectionism, SPP). While perfectionism can sometimes be beneficial, it often poses risks when expectations exceed a student's capabilities, severely affecting both academic success and psychological well-being. The aims of this study are: (a) to detect school refusal profiles following Kearney and Silverman's (1990) functional model, and (b) to analyse differences in perfectionism across these profiles. The study involved 1276 Spanish students (55.3% boys), aged 13–16 (M = 14.49, SD = 1.24). Participants fulfilled the School Refusal Assessment Scale-Revised (SRAS-R) and the Child/Adolescent Perfectionism Scale (CAPS). Through Latent Profile Analysis, four school refusal profiles were identified: High Mixed School Refusal, Mixed School Refusal, School Refusal by Negative Reinforcement, and Non School Refusal. The study found that mixed profiles, which had high or very high scores in both negative (F1, F2) and positive reinforcement (F3), also had the highest mean scores in perfectionistic dimensions. The results emphasise the need to address maladaptive perfectionism to mitigate school attendance problems in adolescents. Practically, the study provides educators with evidence-based insights to inform early interventions targeting maladaptive perfectionism as a mechanism for preventing school refusal.

Popović, D., Krpanec, E., Parmač Kovačić, M., Burić, I., & Šverko, I. (2025). **Unlocking academic potential: Role of individual agency in diverse social environments**. *International Journal of Educational Research*, *133*, 102677. https://doi.org/10.1016/j.ijer.2025.102677
Educational inequalities persist and are prevalent in the modern world. While disadvantaged students encounter many structural barriers, the latest research highlights that individual agency could be a pathway to reduce the social class education gap. To provide a more comprehensive understanding of the interplay between students' social origins and individual agency, this study tested four compelling hypotheses - independent, mediation, cumulative and compensatory effect hypotheses - on their role in shaping social class educational inequalities using multiple indicators of both constructs. The study draws on two-wave data from 1087 (51.4 % girls) middle school students attending 16 schools across Croatia. From the set of SES indicators, only parental education and occupational prestige were predictive of students' academic achievement. Furthermore, results highlight mostly independent effects of students' social origins and individual agency in determining their academic success. Additionally, educational aspirations served as a mediating factor, while both educational aspirations and motivational autonomy played a compensatory role in determining students' academic success.

Prosen, S., & Vitulić, H. S. (2025). **Does the School Context Play a Role in Teachers' Emotion Regulation and Mental Health? A Comparison of Teachers in Primary and Lower Educational Standard Schools**. *European Journal of Education*, *60*(3), e70163. https://doi.org/10.1111/ejed.70163
The research compares teachers working in regular primary schools with those working in special primary schools (for students with mild intellectual disabilities) regarding their

emotion regulation strategies and their self-assessed mental health. The sample consisted of 114 Slovenian teachers from regular schools and 60 teachers from special schools, who participated by completing questionnaires on emotion regulation strategies and general health. The quantitative methodological approach was supplemented by qualitative data gathered via interviews with three teachers from each school context. When comparing the two school contexts, it was found that teachers in regular schools more often avoided specific emotion-triggering situations, while teachers in special schools tended to seek social support more frequently. Compared to regular school teachers, special school teachers reported more difficulties regarding their feeling of usefulness and self-confidence, experienced different emotions, and used a combination of emotion regulation strategies within a given emotion-triggering situation.

Qiu, G. (2025). **On the Relationship Between Students' Perceived Support, Students' Self-Efficacy, and Affect-Emotions in AI-Enhanced Learning Environments**. *European Journal of Education*, *60*(3), e70180. https://doi.org/10.1111/ejed.70180
In response to the growing integration of artificial intelligence (AI) in educational settings, particularly in language learning, there is a pressing need to understand the psychological and pedagogical factors that influence learners' emotional and academic experiences. EFL learners were selected for this study because language learning involves high levels of emotional engagement, communicative interaction, and cognitive challenge—factors that are especially sensitive to perceived support and self-efficacy in AI-enhanced environments. Building on this foundation, the present study aimed to investigate the complex interactions between teacher support, student self-efficacy, and emotional responses, acknowledging the crucial role these variables play in shaping effective, motivational learning experiences for EFL students. It involved 1115 English as a foreign language (EFL) students from diverse Chinese universities, using convenience sampling for a representative mix of academic levels. Instruments included the teacher support scale (TSS), the college academic self-efficacy scale (CASES), and the emotion scale. Advanced statistical tools like SPSS v27 and AMOS v24 enabled structural equation modelling (SEM) to explore these relationships. Results showed that teacher support and student self-efficacy together explain 57% of emotional variance. Specifically, teacher support alone accounted for 55%, emphasising its role in positive emotional experiences. Student self-efficacy contributed uniquely with 44%, enhancing confidence and motivation in AI-enhanced learning. Overall, the study underscores the significant impact of both teacher support and student self-efficacy on the emotional well-being of EFL students in such learning environments.

Quintana, R., Park, S., & Kang, S. (2025). **Causal decomposition analysis in disparities research: investigating the effect of self-efficacy on the gender gap in STEM**. *Quality & Quantity*, *59*(4), 3327-3351. https://doi.org/10.1007/s11135-025-02110-0
The underrepresentation of women in science, technology, engineering and mathematics (STEM) fields has been a subject of extensive research and policy debate. However, there is limited clarity regarding the specific mechanisms that generate these disparities, and which interventions are most effective in reducing the gap. In this study, we use causal decomposition analysis to estimate how the gender gap in STEM participation would change if we were to intervene on women's self-efficacy beliefs in mathematics. Women tend to underestimate their abilities in math-related fields, which can affect their educational and career choices. The question we ask is to what extent the gender gap in individuals' enrollment in STEM majors and identification with

mathematics would be reduced if self-efficacy in mathematics were set to be equal across gender categories. The results suggest that equalizing this target factor will reduce the observed disparities in math identity by 53%, and in the enrollment of STEM majors by 2.5%. The modest influence of self-efficacy on enrollment disparities suggests that it is not the predominant factor. We discuss the implications of our empirical findings, as well as how causal decomposition analysis can benefit social and behavioral disparities research.

Rémeau, M., Raffy, G., & Borst, G. (2025, août). ***Understanding the Relations Between School Well-Being and Academic Achievement***. Consulté à l'adresse https://hal.science/hal-05229786

Richter, S., Kishore, S., Piven, I., Dodd, P., & Bate, G. (2025). **Chatbots in tertiary education: Exploring the impact of warm and competent avatars on self-directed learning**. *British Journal of Educational Technology*, *56*(5), 2102-2124. https://doi.org/10.1111/bjet.13610
This study investigates how anthropomorphic AI chatbot avatars, designed in line with the Stereotype Content Model (SCM) dimensions of warmth and competence, influence university students' perceptions of support for self-directed learning (SDL) activities. We examined student responses to two distinct avatars—one projecting warmth and the other projecting competence. Using an Action Design Research (ADR) approach, we evaluated the chatbots across three university courses, incorporating perspectives from students, educators and learning designers. Findings reveal that students perceive the avatars differently. The warm avatar provides a stronger emotional connection, while the competent avatar offers more effective task-oriented learning support. These results highlight the importance of balancing warmth and competence in chatbot design to enhance their perceived usefulness for supporting SDL engagement. The study also supplies rich insights into practical implementation challenges and opportunities from multiple stakeholder viewpoints. Altogether, the research advances our understanding of SCM-informed chatbot design in educational settings and proposes practical principles for developing AI tools that students perceive as helpful, thereby contributing to the field of human–AI interaction. Practitioner notes What is already known about this topic The potential of AI chatbots to support aspects of self-directed learning (SDL) in higher education is currently being explored. User perceptions of AI systems are influenced by anthropomorphic design cues, often understood through dimensions like warmth and competence (related to the Stereotype Content Model—SCM). Designing AI educational tools requires considering how different interactional styles (eg, warmth vs. competence) can affect student engagement and perceived usefulness. What this paper adds Empirical insights into students' perceptions of chatbot avatars designed with varying levels of warmth and competence, based on the SCM, and how these perceptions relate to their reported engagement and perceived support for SDL in university courses. Evidence that students distinguish between warmth and competence in chatbot avatars, associating warmth with socio-emotional connection and competence with task-related learning support. A set of SCM-informed design principles for developing anthropomorphic chatbots intended to be perceived as helpful and engaging for supporting SDL. Evidence of integrating educator and designer perspectives (through Action Design Research) to uncover practical implementation factors beyond student perceptions alone. Implications for practice and/or policy Educators can select or advocate for chatbot designs that appropriately balance warmth and competence based on specific pedagogical goals and perceived student

needs (eg, more warmth for initial engagement and more competence for complex task support). When implementing chatbots for SDL support, institutions should consider designs informed by user perception research (like SCM) to increase the likelihood of student acceptance and perceived value. Policy discussions on AI in education should incorporate user-centred design principles, including SCM dimensions, alongside ethical guidelines to support responsible adoption and the development of tools perceived as effective by users.

Ritchie, K. C., Doe, C., & Becker, E. (2025). **Teacher Emotion-Regulation in the Elementary Classroom: A Psychological Case Study**. *European Journal of Education*, *60*(3), e70139. https://doi.org/10.1111/ejed.70139
Elementary classroom teaching involves complex emotion labour with a wide range of often co-occurring positive and negative emotions. How teachers engage in the executive function of regulating their emotions in the classroom can influence the quality of instruction they provide and promote their own well-being. The objective of this study was to describe how one teacher regulated his emotions within the complexities of classroom instruction. Using single-subject psychological case-study methodology, an elementary school teacher, with over 15 years of experience in different countries and contexts, participated over the last 3 months of the school year. The teacher demonstrated emotion awareness of self and students, with emotion regulation encompassing an intersection of anticipatory and response-focused strategies with deep and surface acting strategies. Emotions that could not be regulated in deep acting ways were consistently associated with workplace demands that the teacher had little or no agency to change.

Saboor, A., Khan, M. Z., Khan, M. N., Hussain, T., Attar, R. W., Alnfiai, M. M., & Almalki, N. S. (2025). **Exploring the factors that influence students acceptance and use of online learning technology in higher education institutes of Khyber Pakhtunkhwa Pakistan**. *Education and Information Technologies*, *30*(13), 18433-18460. https://doi.org/10.1007/s10639-025-13543-3
Online learning technologies have turned into an essential part of education, particularly in this cutting-edge era of ICT. These technologies are becoming more and more popular in increasing educational access in impoverished nations. The ongoing investigation looks into the variables impacting students' use of online learning technologies in universities, particularly considering the circumstances of Khyber Pakhtunkhwa (KP), Pakistan. We use the Structural Equation Modeling (SEM) and Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm model, which provided a strong analytical background for understanding the dynamics of technology acceptance and usage within this situation. This study examined the UTAUT model among 410 students from KP's higher education institutions. A strong correlation was found between constructs, supporting 10 of 16 hypotheses. Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC) and Attitude (At) explained 73% of Behavioral Intention (BI) variance. These variables also accounted for 63% of At variance. BI and At jointly explained 73% of Use Behavior (UB) variance. The significant relationships in the study include PE having a significant effect on BI ($\beta = 0.347$, p-value = ***), SI affecting BI ($\beta = 0.130$, p-value = 0.006) and At significantly influencing BI ($\beta = 0.312$, p-value = ***). Additionally, PE and EE both significantly impact At, with β values of 0.339 and 0.367, respectively (both p-values = ***). At also significantly predicts UB ($\beta = 0.229$, p-value = 0.002), while BI has a strong effect on UB ($\beta = 0.668$, p-value = ***). The analysis

reveals PE has a weak effect on At (f^2 = 0.13) and a moderate effect on BI (f^2 = 0.17), while both At (f^2 = 0.19) and BI (f^2 = 0.15) have moderate effects on UB. The study's conclusion shows that the success of online learning technologies positively impacts the students' actual use behavior in higher education institutions. This suggests a positive correlation between the usage of online learning software tools and the achievement of education goals. By recognizing and understanding these perceptions, we recommend that facilitators and institutes make up-to-date assessments to improve student online learning involvement. The study adds valuable knowledge regarding the elements impacting students' adoption and acceptance of online learning technologies at universities. The study emphasizes the importance of fostering a supportive environment for integrating online learning tools in educational settings.

Şahin, F. (2025). **Psychological drivers shaping mobile learning utilization among visually impaired university students**. *Education and Information Technologies*, *30*(11), 16163-16187. https://doi.org/10.1007/s10639-025-13430-x
Understanding the various factors influencing the utilization of mobile learning is pivotal to ensuring that visually impaired students can fully harness its benefits. However, there exists a notable gap in empirical research concerning the influence of psychological needs on the adoption of mobile learning among visually impaired students. This study delves into exploring mobile learning adoption among university students with visual impairment, focusing on the influence of basic psychological needs using a path modeling approach grounded in the Technology Acceptance Model and Self-Determination Theory. The investigation involves 341 visually impaired students enrolled in an open education faculty of a state university. Confirmatory factor analysis, structural equation modeling, and bootstrapping were employed for the analysis. The results affirm the model's substantial explanatory power, revealing that the constructs—perceived ease of use (81.5%), perceived usefulness (84.8%), and behavioral intentions (74.7%)—are well elucidated by the proposed framework. The results underscore the significance of competence and relatedness in influencing acceptance and intention to use mobile learning among visually impaired students, highlighting the pivotal role of fostering skills mastery and social support in shaping technology adoption. Intriguingly, certain relationships, notably autonomy- > perceived usefulness and perceived usefulness- > behavioral intention, were deemed insignificant, revealing nuanced dynamics in acceptance and use. This study contributes valuable insights into understanding the complex interplay between basic psychological needs and mobile learning adoption, emphasizing the necessity for tailored interventions and support mechanisms to foster inclusive and effective technology use in the educational journey of visually impaired students.

Salameh, B., Malak, Malakeh. Z., Obiedate, Khaldoon. M., & Bani-Hani, M. (2025). **Relationship between professional identity, professional self-concept, and academic burnout among palestinian fourth-year nursing students**. *International Journal of Educational Research*, *133*, 102743. https://doi.org/10.1016/j.ijer.2025.102743
This study explored the relationship between professional identity, professional self-concept, and academic burnout among Palestinian fourth-year nursing students in the West Bank.

Salem, M., & Shaalan, K. (2025). **Unlocking the power of machine learning in E-learning: A comprehensive review of predictive models for student performance and**

engagement. *Education and Information Technologies*, *30*(13), 19027-19050. https://doi.org/10.1007/s10639-025-13526-4
The proliferation of digital learning platforms has revolutionized the generation, accessibility, and dissemination of educational resources, fostered collaborative learning environments and producing vast amounts of interaction data. Machine learning (ML) algorithms have emerged as powerful tools for analyzing these complex datasets, uncovering patterns and trends that offer deeper insights into student performance and engagement. This systematic review examines the application of ML models in e-learning, synthesizing current research findings, methodologies, and challenges. Key contributions include the categorization of ML models based on their applications, an analysis of their predictive accuracy in forecasting student performance and engagement, and the identification of critical data types and sources that enhance model effectiveness. The study highlights ML's transformative potential in personalizing educational experiences, enabling targeted interventions, and improving learning outcomes. Furthermore, it explores the role of ML in facilitating data mining activities, predictive algorithms, and outcome-driven educational strategies within diverse online learning environments. By addressing gaps in the literature, this review not only underscores the practical implications of ML in e-learning but also identifies future research directions aimed at advancing the integration of ML technologies in educational systems. These insights provide a foundation for educators, researchers, and technologists to harness ML for enhancing teaching and learning processes.

Saritepeci, M., Balıkçı, H. C., & Ermiş, U. F. (2025). **Factors associated with multi-screen addiction and academic resilience: A multigroup analysis by school level**. *Quality & Quantity*, *59*(3), 2535-2553. https://doi.org/10.1007/s11135-025-02076-z
Academic resilience (AR) could function as a preventative factor in mitigating a potential risk of the rising prevalence of excessive screen time and multi-screen addiction (MSA) among adolescents. The study examines the relationship between MSA and AR and the critical factors associated with these two variables in middle and high school students. The study was conducted with 405 students, 218 middle and 187 high school students. A multigroup analysis reveals the mitigating effect of AR on MSA for both sub-samples. It also shows that the role of daily time spent with family in relieving MSA is significant for both sub-samples. However, while the effect of daily watching time on MSA is significant only for high school students, the impact of the level of utilization of ICT for fun on MSA is noteworthy only for middle school students. For both sub-samples, ICT use for research purposes and participants' perceptions of learning performance ranking level are substantial predictors of AR. However, the effect of daily time spent with family on AR is significant for the high school sub-sample but not for the middle school group.

Schlesier, J., & Obermeier, R. (2025). **Individual and Contextual Determinants of Primary and Early Secondary School Students' School Well-being: A Discriminant Analysis and Cross-lagged Panel Model Approach**. *Child Indicators Research*, *18*(4), 1875-1903. https://doi.org/10.1007/s12187-025-10239-5
Previous studies have explored links between students' school well-being and their performance, motivation, and emotions, but have only rarely identified the specific factors that characterize students with particularly high or low well-being in school. This study aims to help narrow this research gap by: (1) identifying those individual and contextual factors that contribute to particularly high or low levels of students' well-being at school; and (2) drawing some causal conclusions of special interest to educators and

stakeholders. In this context, two samples of primary and lower secondary school students (Sample 1: 635, Sample 2: 118 respectively) were asked via a questionnaire about contextual factors (perceived autonomy support and perceived competence support) and individual factors (school-related helplessness, gender, immigration background, need for additional support, and the emotion regulation strategies 'reappraisal' and 'suppression'). The questionnaire was administered to Sample 1 at one point of time and Sample 2 at two separate time points (t1 and t2). The results of the MANOVA and discriminant analysis (Sample 1, cross-sectional) indicate that students' well-being at school is determined primarily by their levels of school-related helplessness, their suppression of emotions, and their perceptions of autonomy and competence support provided by their teachers. The cross-lagged panel model (CLPM) (Sample 2, longitudinal) supports the fact that the use of the emotion regulation strategy 'suppression', in particular, inhibits the development of a high level of well-being at the beginning of the school year. These findings are especially relevant, as they demonstrate the possibility of utilizing data collected for purposes other than assessing students' school well-being, to address related questions.

Shi, H., & Wang, Y. (2025). **High School EFL Students' Pre-Exam Academic Emotions and Their Associations With Academic Achievement: A Latent Profile Analysis**. *European Journal of Education*, *60*(3), e70185. https://doi.org/10.1111/ejed.70185
Among the previous studies examining academic emotions and academic achievement in EFL contexts, few studies have been conducted on heterogeneous patterns of pre-exam academic emotions among English-as-a-foreign-language (EFL) students in high schools. To address this gap, this study aimed to investigate the pre-exam academic emotion profiles and examine their effects on academic achievement. A sample of 391 Chinese high school students completed a questionnaire survey. The latent profile analysis identified three pre-exam academic emotion profiles with unique characteristics: positive-emotion-driven learners (PED Type) (prevalence rate: 31%), bimodal-emotion learners (BE Type) (prevalence rate: 56%) and negative-emotion-driven learners (NED Type) (prevalence rate: 13%). Subsequent analysis revealed significant correlations between the identified emotion profiles and academic achievement. Specifically, the PED Type and BE Type students performed with relative consistency in academic achievement. Meanwhile, both groups reported significantly superior academic achievement compared to the NED Type group. These findings contribute to a deeper understanding of latent patterns of academic emotions in the Chinese EFL settings and offer insightful pedagogical implications for L2 emotion-sensitive interventions.

Shi, W., & Shakibaei, G. (2025). **Insights Into the Effectiveness of Artificial Intelligence-Integrated Speaking Instruction in Enhancing Speaking Skills and Social–Emotional Competence as Well as Reducing Demotivation and Shyness**. *European Journal of Education*, *60*(3), e70174. https://doi.org/10.1111/ejed.70174
Despite the recognised importance of communicative competence in language acquisition, many English as a Foreign Language (EFL) learners persistently grapple with affective barriers such as speaking anxiety, shyness, and demotivation, alongside underdeveloped social–emotional competence (SEC), challenges that traditional speaking instruction methods have often struggled to comprehensively address. Consequently, this study aimed to investigate the influence of Artificial Intelligence (AI)-integrated speaking instruction on EFL learners' SEC, demotivation to speak, shyness, and

speaking skill development, thereby addressing a crucial gap by evaluating a novel technological intervention. To achieve this, a quasi-experimental design was employed, allocating participants into an experimental group (EG) receiving AI-integrated speaking instruction and a control group (CG) engaging in traditional speaking instruction via the Big Blue Button platform; pre- and post-intervention data were collected using validated questionnaires for SEC, demotivation, shyness, and speaking development, supplemented by an attitude questionnaire for the EG. The results from a one-way MANOVA revealed statistically significant and positive outcomes for the AI-integrated approach, with learners in the EG demonstrating substantial improvements in their SEC and overall speaking skills, alongside a significant reduction in demotivation to speak and shyness when compared to the CG, a finding corroborated by the EG participants' predominantly positive attitudes towards the AI intervention. These findings carry important implications for EFL pedagogy, suggesting that AI-integrated speaking instruction presents a more efficacious strategy for concurrently enhancing learners' speaking proficiency and fostering crucial social–emotional skills, thus providing empirical support for integrating AI tools to create more supportive and effective pathways for EFL students to overcome affective hurdles and improve their communicative abilities.

Shim, S. (2025). **Resonance as an educational response to alienation and acceleration in contemporary society**. *Asia Pacific Education Review*, *26*(3), 567-579. https://doi.org/10.1007/s12564-022-09814-0
This study critically analyzes the problems of acceleration and alienation in contemporary society through Rosa's theory and suggests the direction of resonant education to overcome them. Late modern society has brought about the acceleration of technology, acceleration of life change, and acceleration of life. Acceleration causes alienation that neutralizes criticism and distorts relations with the whole world, including oneself, others, and things. Contemporary society dynamically stabilizes and reproduces social structures by mechanisms of continuous growth, acceleration, and innovation. School is a space of resonance that allows reflection on the problems of the world, forms one's own values in relation to the world, and adaptively changes the world. Schools open or close the axis of resonance to form a quality of relationships. The key to its success or failure is whether it shows silence, indifference, and hostility between teachers and students and their educational content or whether it approaches each other, impresses, and makes a voice come out. A successful education of resonance will allow learners to approach new objects and the world they face in the future with an intrinsic interest and self-efficacy. Resonant education makes students open their minds to the world's objects, evokes confidence in successful exchanges, and develops attitudes and abilities to be inspired by exchanges with the world and express with their own voices. As a result, this will be an important opportunity to lead a good life by opening up a true relationship beyond a distorted relationship in contemporary accelerated society.

Shin, D. D., Park, S., Kim, J. A., Nagengast, B., & Bong, M. (2025). **Examining how teachers' characteristics impact student motivation and achievement across subject, school level, gender, and prior achievement level**. *Social Psychology of Education*, *28*(1), 145. https://doi.org/10.1007/s11218-025-10104-x
Teachers' characteristics can significantly influence the quality of student functioning. Yet, there has been little exploration regarding which attributes matter to which outcomes, and for whom, and under what conditions. In this study, we considered four characteristics as perceived by students, namely competence, student-centered

instruction, closeness with students, and enthusiasm, and examined how they predicted students' self-efficacy, interest, and achievement. We also tested whether the predictive relationship differed by subject area (Korean vs. math), school level (middle school vs. high school), gender, and prior achievement. To address these questions, data from the Gyeonggi Educational Panel Study 2012 (GEPS 2012), which included responses from over 5,500 students in Grades 7 to 12, was subjected to two-level regression analyses. The results showed that the considered characteristics made significant differences in students' motivation and achievement across subjects and school levels, both independently and by interacting with the gender and prior achievement of students, even after controlling for their prior scores. More specifically, teachers perceived to be competent and relatable benefited all students across different contexts, although high-achieving students tended to reap even greater benefits from them. However, teachers' implementation of student-centered instructional strategies produced conflicting results as it enhanced the motivation of low-achieving students but hurt the achievement of high-achieving students. Our findings add to the existing literature on the effects of teacher characteristics and provide practical insights for teachers to tailor their support to diverse students in different learning contexts.

Sidorkin, A. M. (2025). **Educating AI: A Case against Non-originary Anthropomorphism**. *Educational Theory*, *75*(4), 720-738. https://doi.org/10.1111/edth.70027
The debate over halting artificial intelligence (AI) development stems from fears of malicious exploitation and potential emergence of destructive autonomous AI. While acknowledging the former concern, this paper argues the latter is exaggerated. True AI autonomy requires education inherently tied to ethics, making fully autonomous AI potentially safer than current semi-intelligent, enslaved versions. The paper introduces "non-originary anthropomorphism"—mistakenly viewing AI as resembling an individual human rather than humanity's collective culture. This error leads to overestimating AI's potential for malevolence. Unlike humans, AI lacks bodily desires driving aggression or domination. Additionally, AI's evolution cultivates knowledge-seeking behaviors that make human collaboration valuable. Three key arguments support benevolent autonomous AI: ethics being pragmatically inseparable from learning; absence of somatic roots for malevolence; and pragmatic value humans provide as diverse data sources. Rather than halting AI development, accelerating creation of fully autonomous, ethical AI while preventing monopolistic control through diverse ecosystems represents the optimal approach.

Small, E., Nikolova, S., & Sesay, B. (2025). **Predictors of adolescents' perceptions of feeling unsafe and mental health**. *International Journal of Educational Research*, *133*, 102728. https://doi.org/10.1016/j.ijer.2025.102728
Adolescents' perceptions of safety in school environments are critical to their mental health and overall well-being. This study examines the predictors of safety perceptions and explores whether school connectedness mediates the relationship between these predictors and mental health, using Social Support Theory as a framework. Data were drawn from the 2021 Youth Risk Behavior Survey (YRBS). A nationally representative sample of 17,232 high school students (ages 14–18) completed anonymous self-report measures on victimization (e.g., bullying, forced sexual intercourse), substance use, parental monitoring, and school connectedness. Mental health was assessed based on self-reported status. Descriptive statistics summarized demographic variables, while generalized linear models and mediation analysis examined relationships between

predictors, perceptions of safety, and mental health outcomes. School connectedness mediated the relationship between bullying, forced sexual intercourse, marijuana use, parental monitoring, and mental health outcomes ($\beta = 0.20$, $p < 0.001$). Adolescents with stronger school connectedness reported better mental health, even in the presence of victimization or substance use. Additionally, gender, race, and sexual identity significantly impacted perceptions of safety, with non-heterosexual and racial minority students reporting greater feelings of unsafety and poorer mental health outcomes. These findings underscore the importance of school connectedness and social support in shaping adolescents' safety perceptions and mental health. Enhancing supportive environments in schools may help reduce the psychological burden associated with victimization and promote adolescent well-being.

Springer, D., Harry, M., & Heinrich, S. (2025). **Investigating Paternalistic Attitudes in NCAA Division I Power 5 Team Conduct Policies**. *Innovative Higher Education*, *50*(4), 1203-1225. https://doi.org/10.1007/s10755-024-09776-8
This study examined whether paternalistic attitudes persist in intercollegiate athletic contexts despite broader shifts away from paternalism across American higher education. We analyzed 98 Division I Power 5 team conduct policies using self-determination theory (SDT) to determine if they exhibited paternalistic attitudes. Findings revealed that team conduct policies often adopted a control-oriented framework, limiting athletes' self-determination and fostering compliance over self-directed growth. This analysis broadens SDT's application to a structural context, highlighting its relevance in policy critique and institutional settings with hierarchical structures. We suggest practical policy language revisions to foster environments that support athletes' basic psychological needs. These recommendations aim to bridge a disconnect between athletic and broader university administration, advocating for policies that can enhance athlete well-being and motivation. Future research could expand this approach to include stakeholder interviews, shedding light on the perceptions and real-world implementation of such policies in athletic environments.

Stark, K., & Daulat, N. (2025). **Teacher well-being and teacher retention: establishing a link**. *Social Psychology of Education*, *28*(1), 147. https://doi.org/10.1007/s11218-025-10109-6
Recruiting and retaining a high-quality teacher workforce is a challenge for many of today's school leaders. One way to address this challenge is to understand the role of teachers' psychological experiences at work in their career decisions. Although substantial research has explored the role of negative psychological experiences (such as burnout) in teacher attrition, little research has explored how positive psychological experiences (such as a sense of well-being) may relate to teacher retention. In this exploratory study, we meet a gap in the literature by exploring relations between teacher well-being and teachers' career intentions, using the 6-factor Ryff Psychological Well-being Scale (1989). The results highlight that greater psychological well-being predicts increased likelihood that teachers will choose to stay at their current school and in the education field, but not in their current role. We discuss implications for teachers and school leaders.

Tanchuk, N. J. (2025). **Deep ASI Literacy: Educating for Alignment with Artificial Super Intelligent Systems**. *Educational Theory*, *75*(4), 739-764. https://doi.org/10.1111/edth.70030

Artificial intelligence companies and researchers are currently working to create Artificial Superintelligence (ASI): AI systems that significantly exceed human problem-solving speed, power, and precision across the full range of human solvable problems. Some have claimed that achieving ASI — for better or worse — would be the most significant event in human history and the last problem humanity would need to solve. In this essay Nicolas Tanchuk argues that current AI literacy frameworks and educational practices are inadequate for equipping the democratic public to deliberate about ASI design and to assess the existential risks of such technologies. He proposes that a systematic educational effort toward what he calls "Deep ASI Literacy" is needed to democratically evaluate possible ASI futures. Deep ASI Literacy integrates traditional AI literacy approaches with a deeper analysis of the axiological, epistemic, and ontological questions that are endemic to defining and risk-assessing pathways to ASI. Tanchuk concludes by recommending research aimed at identifying the assets and needs of educators across educational systems to advance Deep ASI Literacy.

Tang, Y., Wang, Q., Shan, H., & Shi, B. (2025). **A Longitudinal Study on the Relationship Between Mental Well-Being and Creative Ability Among Graduate Students**. *Journal of Happiness Studies*, *26*(6), 106. https://doi.org/10.1007/s10902-025-00943-y
The graduate studies stage involves balancing mental well-being and creative demands. However, the relationship between mental well-being and creative ability in graduate students remains a contentious issue, particularly with respect to whether this relationship is linear or nonlinear. This study explored the relationship between mental well-being and creative ability through a longitudinal survey of 1,059 graduate students (Mage = 24.81, 81.6% female) at 15-month intervals via cross-lagged analysis, segmented regression analysis and latent profile analysis. The findings were as follows: (1) graduate students' mental well-being at Time 1 (T1) positively predicted their creative ability at Time 2 (T2), whereas creative ability at T1 did not predict their mental well-being at T2; (2) a breakpoint between graduate students' mental well-being at T1 and creative ability at T2 was found at -0.87 SD, below which mental well-being at T1 significantly positively predicted creative ability at T2 and above which mental well-being at T1 did not significantly predict creative ability at T2; and (3) the three mental well-being subgroups at T1 (excellent, moderate, and challenged subgroups) were significantly different in their creative ability at T2. Specifically, the moderate and excellent mental well-being subgroups demonstrated significantly greater creative ability than the challenged mental well-being subgroups did. However, creative ability did not differ significantly between the moderate and excellent mental well-being subgroups. In conclusion, mental well-being may be a necessary but not sufficient condition for creative ability. These findings offer useful insights into supporting graduate student development.

Taşkın, N., & Kokoç, M. (2025). **Behavioural engagement, academic dishonesty, and performance gaps: Comparing online and paper–pencil based tests in an online learning context**. *Education and Information Technologies*, *30*(13), 18895-18919. https://doi.org/10.1007/s10639-025-13514-8
This study examines the growing issue of academic dishonesty in online assessments, a challenge intensified by the expansion of digital learning platforms. Specifically, it investigates the relationship between students' online engagement and their performance in online versus traditional paper-and-pencil tests. Employing a cross-sectional research design, data were collected from 1,022 students across various faculties at a state university. Regression analysis revealed that behavioural engagement

significantly predicted performance in paper–pencil tests but not in online assessments. Moreover, students scored higher in online tests, yet the weak correlation between scores across both formats raises concerns about the validity of online assessments in accurately reflecting student learning. These findings underscore the necessity of enhancing online assessment integrity and leveraging engagement metrics to prevent academic dishonesty. The study suggests that educators, policymakers, and administrators should consider student engagement as a key factor in fostering a culture of academic honesty while supporting students' academic performance.

Tran-Duong, Q. H., & Nguyen, D.-T. (2025). **Enhancing Engagement in Pre-Service Primary School Teachers: Which Teaching Style Should Teacher Educators Adopt?** *European Journal of Education*, *60*(3), e70145. https://doi.org/10.1111/ejed.70145
As a key aspect of pedagogical competence, lecturers' teaching style significantly impacts the behavioural changes in students, especially student engagement. The research on the impact of teaching style on primary teacher education students' engagement, however, contains very little data. Using the three-factor structure of student engagement and Grasha's teaching style model, the present study carried out a crucial inquiry into the relationship between the teaching style of lecturers and the engagement of primary teacher education students. The 1229 responses from sophomore, junior, and senior students were subjected to a MANCOVA to evaluate the research model. The findings demonstrated that primary teacher education students' levels of engagement vary greatly depending on the various teaching styles that their lecturers have used. Lecturers must deliberately choose and modify their teaching styles to enhance the engagement of primary teacher education students.

Tsuyuguchi, K. (2025). **Impact of trust relationships on teacher well-being: Validation with longitudinal design and multilevel model**. *International Journal of Educational Research*, *133*, 102708. https://doi.org/10.1016/j.ijer.2025.102708
This study aimed to elucidate the impact of trust relationships surrounding teachers on teacher well-being. Three online surveys were administered to elementary and junior high school teachers in Japan between Fiscal Years 2021 and 2023 (the Japanese fiscal calendar runs from April 1st to March 31st of the following year). A total of 3153 teachers who responded to all three surveys were included in the analysis. The school-focused longitudinal design required an analytical model that captured variance at both the individual and school levels over time. A multilevel model (generalized linear mixed model) for the longitudinal design was developed to fulfil these analytical requirements, and the subsequent analysis yielded the following findings. First, trust relationships surrounding teachers (student trust, parent trust, colleague trust, and principal trust) causally influenced teacher well-being (work engagement, depressive symptoms, and subjective well-being), even after controlling for individual, job, and school characteristics. Second, the establishment of a stable and high level of trust relationships surrounding teachers developed over several years and significantly enhanced teacher well-being. These results confirm the critical role of a sustained culture of trust in improving teachers' well-being. Third, principal trust exerted the most significant effect on work engagement, whereas colleague trust predominantly affected both depressive symptoms and subjective well-being. This study confirmed that teachers' well-being is decisively influenced by trust relationships with their surroundings, even in a longitudinal design. The findings suggest that principals should implement in-school training programs

and a mentoring system to build trust among colleague and improve teachers' well-being.

Umemoto, T., & Inagaki, T. (2025a). **Inter- and intraindividual relationships between motivation for out-of-class learning and basic psychological need satisfaction among Japanese university students**. *International Journal of Educational Research*, *133*, 102684. https://doi.org/10.1016/j.ijer.2025.102684
Out-of-class learning is essential for mastering course content in class. Previous research has highlighted motivation as a key factor in promoting autonomous learning engagement, and self-determination theory shows that satisfaction of basic psychological needs undergirds motivation to learn. To support out-of-class learning, it is important to consider the reciprocal relationship between motivation for out-of-class learning and satisfaction of basic psychological needs in school. To explore these dynamics, we employed longitudinal data to analyze the interindividual relationships among variables using a cross-lagged panel model, and intraindividual relationships among variables using a random intercept cross-lagged panel model. Data were gathered through an online survey of Japanese university students at three time points over a semester, and 496 students responded. Using an index that indicates autonomous motivation, we found that at the interindividual level, competence satisfaction positively influenced autonomous motivation at a subsequent time point, and autonomous motivation later positively affected satisfaction of the needs for autonomy, relatedness, and competence. Conversely, at the intraindividual level, autonomous motivation was negatively related to satisfaction of the need for autonomy at a subsequent time point. This study is the first to demonstrate the reciprocal relationships between motivation for out-of-class learning and basic psychological need satisfaction at both the inter- and intraindividual levels among university students. To enhance motivation for out-of-class learning, it is especially important to satisfy the need for competence. Furthermore, for learners who autonomously engage in out-of-class learning, the quality and quantity of autonomy support should be progressively improved throughout the semester.

Umemoto, T., & Inagaki, T. (2025b). **Longitudinal reciprocal relationships among mastery goals, autonomous motivation, and motivation instability**. *Asia Pacific Education Review*, *26*(3), 703-715. https://doi.org/10.1007/s12564-024-09952-7
In this study, we examined the longitudinal reciprocal relationships among mastery goals, autonomous motivation, and motivation instability. In the hierarchical model of motivation, mastery goal for overall course subject learning has been positioned at the contextual level, while autonomous motivation and motivation instability during a specific class session were positioned at the situational level. A longitudinal online survey of university students in five asynchronous online classes at a Japanese university was conducted at three time points in one semester. A total of 218 university students participated in the study. A cross-lagged panel model was constructed and analyzed by structural equation modeling. The results showed that the mastery goal at Time 1 was positively associated with autonomous motivation at Time 2. In addition, the mastery goal at Time 2 was positively associated with autonomous motivation at Time 3 and negatively associated with motivation instability at Time 3. These results indicate a top-down effect of mastery goal at the contextual level on situational motivation, which is located lower in the hierarchical model. Furthermore, autonomous motivation at Time 2 was positively associated with the mastery goal at Time 3. This indicates a bottom-up effect, in which contextual motivation, which is located higher in the hierarchical model, can be altered

by situational motivation in the classroom. The results of the study clearly show a longitudinal reciprocal relationship between contextual level motivation and situational level motivation.

Vasiou, A., Mouratidis, A., Michou, A., Touloupis, T., & Psychountaki, M. (2025). **Teachers' Emotion Regulation and Anger Profiles as Predictors of Classroom Management Practices**. *European Journal of Education*, *60*(3), e70074. https://doi.org/10.1111/ejed.70074
In this study, we considered teachers' emotion regulation and teaching-related anger as a combined construct with multiple manifestations on classroom management practices. Four hundred and five Greek in-service teachers (Mage = 44.55, SD = 10.13; age range = 21.0, 68.0 years) participated in a cross-sectional online survey who reported their ability to regulate their own emotions, their teaching-related anger and, both, dominant and collaborative approaches in classroom management practices. Latent Profile Analysis revealed an insufficiently regulated teacher profile with low emotion regulation and high anger, an adequately regulated teacher profile with medium levels of both emotion regulation and anger, and a teacher profile labelled as sufficiently regulated, with high emotion regulation and low anger. Although the teachers in the three groups did not differ in dominant practices, the teachers in the sufficiently regulated group reported higher collaborative practices than their counterparts in the other two groups. The results indicate that teachers with high emotion regulation and low anger favour collaboration, as they are better equipped to handle unexpected events that arise from active student interactions. Our findings underscore the key role of adaptive emotion regulation practices to promote collaborative learning in the classroom.

Volodina, A., & Olczyk, M. (2025). **Socioeconomic Status and Well-being in Elementary School: An Evaluation of Different Indicators of Socioeconomic Status**. *Child Indicators Research*, *18*(4), 1495-1525. https://doi.org/10.1007/s12187-025-10258-2
Although socioeconomic status (SES) is related to students' well-being, many studies consider only a single SES indicator and one dimension of well-being, providing an incomplete picture. The present study examined SES-related differences among a large sample of elementary school students in Germany. We employed multiple SES indicators, considered both cognitive and psychological dimensions of well-being, and explored potential underlying mechanisms. Our findings highlight that the relations between SES and well-being depend on the specific SES indicator and the well-being dimension under study: Family income was linked to both cognitive and psychological dimensions of well-being, but only when considered alone. In contrast, parental education remained relevant for cognitive dimension of well-being even when several SES indicators were considered. Parents' occupation showed an association with one facet of cognitive dimension of well-being—school satisfaction—when analyzed alone. Regarding underlying mechanisms, several factors, such as parent-child communication, mediated the relations between SES indicators and both school satisfaction (a facet of cognitive dimension of well-being) and psychological dimension of well-being. However, no mediating effects were found for life satisfaction, the second facet of cognitive dimension of well-being under study. Future studies should consider that associations may vary depending on the chosen SES indicator and the well-being dimension of interest. In this context, further research on underlying mechanisms is needed to provide a more comprehensive understanding of social differences in childhood well-being.

Vorapanya, S. (2025). **Issues around the screening process for students with SENs in inclusive schools in Lop Buri Province, Thailand**. *International Journal of Inclusive Education*, *29*(11), 1987-2001. https://doi.org/10.1080/13603116.2024.2327525
A systematic screening process aims to prevent students from school failure and other salient concerns related to students' complications with health and psychological risks. The situation of the screening process for at-risk primary school students in Lop Buri province, Thailand is in question. This study thus aims to investigate (1) the current situation of assessment for at-risk students in hospitals; (2) the existing screening process situation in primary school environments; (3) how parents of students with SENs support screening processes. This qualitative study acquired data from interviewing seven medical screeners, eleven classroom teachers and nine parents of SEN students. From the data analysis, seven different themes emerged among insightful data from the three groups of participants: screening process from school to hospital; shortage of screening tools' training; inadequate medical personnel; complications of psychiatric disorders; local school practices differ with national educational policies; no for identification card and live unhealthy lives being within a low-SES bracket.

Wang, P., & Liu, Y. (2025). **The Role of Technophilia, Positive Experience and Flow in Enhancing Learning Efficiency in AI-Based Music Education: A Self-Determination Theory Approach**. *European Journal of Education*, *60*(3), e70200. https://doi.org/10.1111/ejed.70200
Artificial Intelligence (AI) is transforming music education by providing adaptive learning tools and personalised feedback. However, existing research has primarily focused on technological outcomes, with limited attention to the affective and motivational processes that drive effective AI-assisted music learning. This study aims to examine how technophilia and positive experience influence flow and perceived learning efficiency in AI-based music education. A quantitative survey of 941 music major students was conducted, and Structural Equation Modelling (SEM) was used to test a conceptual model grounded in Self-Determination Theory. The results indicate that both technophilia and positive experience significantly enhance flow and learning efficiency, with flow also serving as a key mediator. These findings underscore the importance of addressing psychological and emotional factors when designing AI-driven music learning environments. This study contributes to the literature by highlighting how learner-centred, emotionally supportive design can foster deeper engagement and improved learning outcomes in AI-supported creative education.

Wang, S., & Wang, Y. (2025). **Language Attitude and GenAI Attitude of Struggling EFL Learners: A Moderated Mediation Model of Enjoyment and Anxiety**. *European Journal of Education*, *60*(3), e70172. https://doi.org/10.1111/ejed.70172
Cognitive and affective factors play crucial roles in shaping learners' attitudes towards generative artificial intelligence (GenAI). However, the synergistic influence of language attitude and emotions, including foreign language enjoyment (FLE) and foreign language classroom anxiety (FLCA) on struggling EFL learners' GenAI attitudes remains underexplored. To bridge this research gap, the present study develops a moderated mediation model using partial least-squares structural equation modelling (PLS-SEM), based on data collected from 294 struggling EFL learners in China and analysed through SmartPLS software. The findings indicate that FLE mediates the relationship between language attitude and GenAI attitude. Additionally, FLCA moderates both the effect of

FLE on GenAI attitude and the direct relationship between language attitude and GenAI attitude. On the basis of these findings, pedagogical implications are discussed to help instructors support struggling EFL learners in developing a more positive attitude towards GenAI.

Wang, W., Khasawneh, M. A. S., Sarabani, L., & Ismail, S. M. (2025). **Investigating the Influence of Positive Classroom Management Strategies on Academic Buoyancy, Academic Engagement, Psychological Well-Being and Language Achievement: Visions From EFL Learners**. *European Journal of Education*, *60*(3), e70149. https://doi.org/10.1111/ejed.70149
This study examined the impact of positive classroom management techniques on language learners' academic buoyancy, engagement, psychological well-being and language achievement. Grounded in the theoretical framework of positive psychology, the research adopted a concurrent mixed-methods design, combining qualitative interviews with quantitative assessments to provide a comprehensive understanding of the phenomenon. The study involved 50 lower-intermediate language learners aged 18 to 23, who were randomly assigned to either an experimental group or a control group. The experimental group was exposed to positive classroom management interventions, while the control group participated in traditional teacher-fronted sessions. The qualitative findings revealed that positive classroom management strategies significantly enhanced the EFL learners' academic buoyancy, engagement and psychological well-being. Furthermore, the quantitative outcomes demonstrated a statistically significant improvement in academic achievement among the experimental group, with these learners outperforming their counterparts in the control group on posttest measures. These results offer valuable implications for EFL teachers, materials developers, syllabus designers and policymakers, emphasising the importance of integrating positive classroom management strategies into educational practices and policies to foster holistic learner development.

Wu, L., Qin, Z., Jing, P., Xue, Y., Shao, D., & Luo, P. (2025). **The Causal Effect of Active School Travel on Children's Subjective Well-Being: Evidence from the China Family Panel Survey**. *Journal of Happiness Studies*, *26*(6), 109. https://doi.org/10.1007/s10902-025-00947-8
School travel, as an integral part of children's daily life, has important implications for their subjective well-being. However, previous studies more focused on the effects of school travel on physical health, and few of them paid attention to the subjective well-being of children. The cultural backgrounds differ between domestic and foreign contexts, rendering foreign research not necessarily applicable to China. This study aimed to explore the functional mechanism and causal effect of active school travel on children's subjective well-being. We used 4 waves of data from the 2012–2018 Chinese Family Panel Studies (CFPS) and employed the random-effects ordered logistic model as well as the Double Machine Learning (DML) model to investigate the causality between active school travel and children's subjective well-being. Our study revealed a significant positive effect of active school travel on children's subjective well-being. The research findings validated that DML is an appropriate and beneficial method for studying the causal relationship between children's subjective well-being and active school travel. Moreover, these results provide valuable insights for policymakers and practitioners to develop child-friendly travel policies and infrastructure.

Wu, Z., Sabarwal, S., Basnet, D., Aber, J. L., & Cohen, G. L. (2025). **Understanding the effects of values affirmation on deaf students in Nepal: evidence from a randomized controlled trial**. *Social Psychology of Education*, *28*(1), 140. https://doi.org/10.1007/s11218-025-10097-7
In this paper, we present two studies from the first randomized controlled trial on the impact of a values affirmation intervention on academic performance and psychological well-being in school for deaf students in secondary deaf schools in Nepal. In Study 1, we found moderate and suggestive evidence that values affirmation had a small effect on lowering students' perceived stereotype threats and improving their academic performance. Contrary to the evidence in past studies, the affirmation effect was stronger among students who initially reported facing fewer stereotype threats. These findings suggested that the intervention might not counter severe threats for some students but could help those facing objectively high, yet relatively lower, threats by providing a psychological buffer. In Study 2, we conducted a qualitative thematic analysis of students' reflections in both the treatment and control exercises and used the thematic codes to predict academic performance separately within each treatment condition. We found strong evidence that reflections on the themes "Self-awareness and growth in self-identity" and "Relationship with friends" were positively associated with better academic performance for students in the treatment group. We found no evidence that any themes in the control group negatively predicted academic performance for students in the control group. These findings pinpoint plausible context-speific mechanisms for values affirmation and provide an example research agenda for future values affirmation studies targeting vulnerable populations in novel contexts.

Xiao, J., Chen, M., Yang, Y., & Liu, M. (2025). **An exploratory multimodal study of the roles of teacher-student interaction and emotion in academic performance in online classrooms**. *Education and Information Technologies*, *30*(11), 15507-15527. https://doi.org/10.1007/s10639-025-13426-7
Teacher-student interaction is critical for providing learners with support and maintaining effective communication during the teaching process. The online teacher-student interaction mode, has posed challenges to the effectiveness of online classes. However, how to conduct effective interaction in online classes to improve learning outcomes remains unclear. This study used multimodal data analysis of platform behavior and emotional data to investigate the impacts of teacher-student interaction and emotions on students' academic performance in an online classroom setting. Findings indicate that adult learners' interactive behaviors, particularly the number of podium appearances and the number of rewards received, positively affect their quiz performance in real time. Additionally, negative emotion frequency collected within a time window shorter than the entire online class was positively correlated with quiz performance. The preliminary results of this study inspire and guide teachers in understanding classroom dynamics and optimizing the teaching process effectively and promptly.

Xu, S., Su, Y., & Liu, K. (2025). **Investigating student engagement with AI-driven feedback in translation revision: A mixed-methods study**. *Education and Information Technologies*, *30*(12), 16969-16995. https://doi.org/10.1007/s10639-025-13457-0
Despite the well-established importance of feedback in education, the application of Artificial Intelligence (AI)-generated feedback, particularly from language models like ChatGPT, remains understudied in translation education. This study investigates the

engagement of Master's students in translation with ChatGPT-generated feedback during their revision process. A mixed-methods approach, combining a translation-and-revision experiment with quantitative and qualitative analyses, was employed to examine the feedback, translations before and after revision, the revision process, and student reflections. The results reveal complex interrelations among cognitive, affective, and behavioural dimensions influencing students' engagement with AI feedback and their subsequent revisions. Specifically, the findings indicate that students invested considerable cognitive effort in the revision process, despite finding the feedback comprehensible. Moreover, they exhibited moderate affective satisfaction with the feedback model. Behaviourally, their actions were largely influenced by cognitive and affective factors, although some inconsistencies were observed. This research provides novel insights into the potential applications of AI-generated feedback in translation teaching and opens avenues for further investigation into the integration of AI tools in language teaching settings.

Xu, X., Qiao, L., Cheng, N., Liu, H., & Zhao, W. (2025). **Enhancing self-regulated learning and learning experience in generative AI environments: The critical role of metacognitive support**. *British Journal of Educational Technology*, *56*(5), 1842-1863. https://doi.org/10.1111/bjet.13599
The rapid development of generative artificial intelligence (GenAI) has brought opportunities and new challenges to higher education. Students need a high level of self-regulated learning to adapt to this change. However, it is difficult for students to persist in self-regulation without guidance. Metacognitive support has a significant advantage in enhancing self-regulated learning, but fewer studies have explored the effects of its role in GenAI environments. The purpose of this study was to investigate the impacts of metacognitive support on college students' self-regulated learning and learning experiences in a GenAI environment. A quasi-experiment was designed in which 68 college students were divided into two groups. The experimental group (N = 35) received explicit metacognitive support, while the control group (N = 33) did not receive any metacognitive prompts. The experiment lasted 4 weeks. The study measured students' academic performance, self-regulated learning ability and learning experiences (including cognitive load and technology acceptance). The results indicate that in the GenAI environment, metacognitive support, while not producing significant between-group differences in achievement, enhances students' self-regulated learning abilities particularly in terms of task strategy and self-evaluation, as well as optimizing their learning experience. The study also found that students were at risk of decreasing their level of self-regulated learning if they lacked metacognitive support in the GenAI environment. The conclusion points out that GenAI supports learners to accomplish learning tasks while potentially reducing self-regulated learning effectiveness, and that metacognitive support is key to supporting effective regulation in learners' GenAI environments. This study provides an important theoretical and practical basis for how to better support learners' learning in GenAI environments. Practitioner notes What is already known about this topic SRL is vital for effective learning in digital environments. Generative AI tools, like ChatGPT, can enhance learning but require support. Learners often struggle to apply SRL strategies without guidance. What this paper adds Metacognitive support improves SRL in Generative AI environments. It reduces cognitive load and increases the perceived usefulness of AI tools. Structured support leads to better academic outcomes. Implications for practice and/or policy Teachers should integrate metacognitive support when using AI tools. Teacher training should focus on SRL

strategies in tech-rich settings. Policies should promote ethical and effective AI use in education.

Yaban, E. H., & Gaschler, R. (2025). **Developmental regulation processes and age-related motivation of distance education students**. *Higher Education*, *90*(1), 177-197. https://doi.org/10.1007/s10734-024-01316-9
The rise of technological advancements and the pandemic have made distance education increasingly prevalent, demanding high levels of self-regulation. This research addresses the integration of three core developmental regulation models of lifespan development and the motivators proposed by self-determination theory. Although regulation models are widely used in organizational contexts, their application in education is limited. Action regulation strategies and motivation are essential for student success across the lifespan. Age diversity can also influence students' responses to these demands. Thus, this study aimed to gain insights into regulatory processes (meta-regulation, goal engagement, and disengagement) and motivation (internal and external) in undergraduate distance-learning students of psychology. Three hundred thirty-eight students (74.9% females) from different developmental stages of emerging adulthood, early adulthood, and middle adulthood participated in an online survey (aged 18–58 years; M = 30.80, SD = 10.18). Results revealed that middle-aged students scored higher on internal motivation compared to those in emerging and early adulthood. Conversely, the emerging adult group reported higher external motivation. Canonical correlation analysis (CCA) indicated higher levels of relentlessly pursuing goals in conjunction with meta-regulation might enhance the internal motivation of distance education students across various developmental stages. This study extends developmental regulation models to (distance) education, highlighting the significant relationship between internal and external motivation. It underscores the importance of developmental regulation and motivation for students from various backgrounds. Given the growing prevalence of distance education, the study discusses implications for supporting positive outcomes for distance learners.

Yaban, E. H., Heikamp, T., & Gaschler, R. (2025). **The gender-specific inter-role conflict and academic well-being in distance education: The mediating role of developmental regulation processes**. *International Journal of Educational Research*, *133*, 102690. https://doi.org/10.1016/j.ijer.2025.102690
Distance education offers learners the flexibility to choose when, where, and how they study, enabling them to pursue academic goals alongside work, family, and other responsibilities. Yet, this flexibility often requires greater self-regulation. Bidirectional inter-role conflicts—such as those between university and family or university and work—can undermine academic well-being in this context. Developmental regulation processes, including meta-regulation, goal engagement, and goal disengagement, provide a valuable framework for navigating these challenges. The current two-wave longitudinal study examined the mediating role of developmental regulation in the relationship between inter-role conflicts at the beginning of the semester (Time 1 [T1]) and academic well-being three months later (Time 2 [T2]) among 200 distance education students (76.5% women) aged 18-73 (M = 35.10; SD = 12.60). Concerning inter-role conflicts, a 2 (gender) × 4 (resource conflicts) repeated-measures ANCOVA revealed a significant interaction. Women reported more university-family conflict than the other conflict types (i.e., family-university, work-university, and university-work conflict), while men reported more work-university conflict. Across genders, university-work conflict was perceived as

the least intense. Structural equation modeling (SEM) revealed that inter-role conflicts at T1 were negatively related to academic well-being at T2, whereas developmental regulation at T1 was positively associated with later academic well-being. On the one hand, the results highlight gender differences in how students experience inter-role conflict. On the other hand, developmental regulation partially mediated the relation between resource conflicts and academic well-being, emphasizing its role in supporting distance education students navigating competing demands and maintaining academic well-being, regardless of gender.

Yalin, F. A., & Aydin, A. (2025). **Adaptation of the Decision-Making Questionnaire Into Turkish: Exploring Its Association With Cognitive Flexibility**. *European Journal of Education*, *60*(3), e70141. https://doi.org/10.1111/ejed.70141
Decision making is a cognitive process that considerably influences nearly every aspect of human life, which shapes outcomes and overall well-being of individuals. This study consisted of two parts, in the first part of which the English version of a 64-item decision-making questionnaire was adapted into Turkish. Responses were collected from 22 pilot and 503 main group participants. The adaptation process involved ensuring language equivalence through translation and back translation, expert reviews and pilot testing to address cultural and linguistic nuances. The validity and reliability of the Turkish version were assessed through a series of statistical analyses. These findings indicated that the adapted questionnaire is a valid and reliable tool for assessing decision-making processes in Turkish-speaking populations. In the second part, the relationship between cognitive flexibility and decision-making abilities was evaluated in a sample of 332 participants. Correlation analysis identified a statistically significant and positive relationship between cognitive flexibility and decision-making ($r = 0.233$, $p < 0.01$), indicating that individuals with greater cognitive flexibility tend to perform slightly better in decision-making tasks. The findings underscore the complexity of cognitive and behavioural interactions, emphasising the importance of exploring other mediating and moderating variables in future research.

Yan, Y., & Zhang, J. (2025). **Exploring the Interplay of Academic Resilience, Cognitive Appraisals of GenAI, and Academic Engagement Among Pre-Service Chinese as a Foreign Language Teachers**. *European Journal of Education*, *60*(3), e70202. https://doi.org/10.1111/ejed.70202
This study examines the impact of academic resilience on the engagement of Chinese as a foreign language (CFL) pre-service teachers amid the disruption caused by generative AI (GenAI). Using the Conservation of Resources theory as a foundation, we suggest that resilience helps reduce vulnerabilities by influencing how GenAI is perceived—either as a challenge or an obstacle. Data from 365 CFL pre-service teachers were analysed using structural equation modelling. The findings show a strong direct effect of resilience on engagement ($\beta = 0.542$) and reveal two pathways: resilience increased challenge appraisals ($\beta = 0.179$) and decreased hindrance appraisals ($\beta = -0.228$). Although challenge appraisals had a weak positive effect on engagement ($\beta = 0.100$), hindrance appraisals had a significantly stronger negative impact ($\beta = -0.257$). Notably, resilience fostered engagement primarily by reducing hindrance appraisals (mediated $\beta = 0.058$), while the challenge pathway was not significant. The model accounted for 45.6% of the variance in engagement, highlighting both the disruptive potential of GenAI and the systemic vulnerabilities of pre-service teachers. The results suggest that resilience interventions should focus on alleviating AI-related threats, such

as career anxieties, rather than emphasising perceived opportunities. This study redefines resilience as a crucial protective factor for educators facing AI-driven transitions, calling for pedagogical approaches that address technological disruptions as both psychological and professional challenges.

Yang, J., Chen, Y., & Wang, Y. (2025). **Exploring the Interplay of Motivation, Engagement and Critical Thinking Among EFL Learners: Evidence From Structural Equation Modelling**. *European Journal of Education*, *60*(3), e70187. https://doi.org/10.1111/ejed.70187
Critical thinking (CT) is widely recognised as a core competency in 21st-century higher education, particularly within English as a Foreign Language (EFL) learning contexts. This study examines the extent to which motivation and engagement contribute to the development of CT skills among Chinese EFL university students. A sample of 626 undergraduates from multiple provinces completed validated instruments measuring motivation, academic engagement and CT dispositions. Structural Equation Modelling (SEM) was employed to explore the interrelations among these constructs. The findings show that motivation predicts both engagement and CT, and that CT is positively associated with engagement, indicating a reciprocal relationship. These findings highlight the interdependent roles of affective and cognitive factors in promoting higher-order thinking. The study offers pedagogical implications for language educators, curriculum designers and policymakers aiming to foster autonomous, critically-minded learners in EFL environments.

Yang, M., Jiang, S., Li, B., Herman, K., Luo, T., Moots, S. C., & Lovett, N. (2025). **Analysing nontraditional students' ChatGPT interaction, engagement, self-efficacy and performance: A mixed-methods approach**. *British Journal of Educational Technology*, *56*(5), 1973-2000. https://doi.org/10.1111/bjet.13588
Generative artificial intelligence brings opportunities and unique challenges to nontraditional higher education students, stemming, in part, from the experience of the digital divide. Providing access and practice is critical to bridge this divide and equip students with needed digital competencies. This mixed-methods study investigated how nontraditional higher education students interact with ChatGPT in multiple courses and examined relationships between ChatGPT interactions, engagement, self-efficacy and performance. Data were collected from 73 undergraduate and graduate students through chat logs, course reflections and artefacts, surveys and interviews. ChatGPT interactions were analysed using four metrics: prompt number, depth of knowledge (DoK), prompt relevance and originality. Results showed that ChatGPT prompt numbers ($\beta = 0.256$, $p < 0.03$) and engagement ($\beta = 0.267$, $p < 0.05$) significantly predicted performance, while self-efficacy did not. Students' DoK ($r = 0.40$, $p < 0.01$) and prompt relevance ($r = 0.42$, $p < 0.01$) were positively correlated with performance. Text mining analysis identified distinct interaction patterns, with 'strategic inquirers' demonstrating significantly higher performance than 'exploratory inquirers' through more sophisticated follow-up questioning. Qualitative findings revealed that while most students were first-time ChatGPT users who initially showed resistance, they developed growing acceptance. Still, students tended to use ChatGPT sparingly and, even then, as only a starting point for assignments. The study highlights the need for targeted guidance in prompt engineering and AI literacy training to help nontraditional higher education students leverage ChatGPT more effectively for higher-order thinking tasks. Practitioner notes What is already known about this topic Nontraditional students face unique challenges in higher education, such as limited technological literacy and digital access.

The emergence of generative AI tools presents both opportunities and challenges for addressing educational disparities. Existing studies on AI implementation predominantly focus on traditional students. What this paper adds Empirical evidence of how nontraditional students interact with ChatGPT through multiple metrics (prompt number, DoK, relevance and originality). Distinct interaction patterns and their relationship to performance outcomes. The relationship among ChatGPT interactions, engagement, self-efficacy and performance. Implications for practice and/or policy Need for explicit instruction in prompt engineering as a critical skill for higher-order thinking. Importance of providing targeted technology training and self-paced learning resources for nontraditional students. Value of developing comprehensive AI literacy training that addresses both tool capabilities and limitations.

Yang, S., & Zhu, S. (2025). **Identifying factors influencing online learning outcomes for middle-school students — a re-examination based on XGBoost and SHAP**. *Education and Information Technologies*, *30*(11), 15071-15094. https://doi.org/10.1007/s10639-025-13405-y
Accurately identifying the factors that influence the online learning of middle-school students is crucial for improving its effectiveness. However, existing studies rarely focus on the factors influencing the learning outcomes of middle-school students, and traditional methods often struggle to identify the nonlinear relationships among those factors. This study aims to fill this gap, exploring the factors influencing online learning outcomes for middle-school students and their nonlinear impacts. Therefore, the study constructed a CIPP (Context, Input, Process, and Product) theoretical framework, and integrated the XGBoost (Extreme Gradient Boosting) and SHAP (SHapley Additive exPlanations) methods to reveal the nonlinear impact of various factors on online learning outcomes and explore the interactive effects between these factors, based on the questionnaire responses of 142,514 middle-school students. The results indicate the following: (1) Affective engagement is a key factor influencing online learning outcomes. (2) The top four factors – affective engagement, social engagement, self-regulation strategy, and teaching presence – show a nonlinear trend from stable to improved online learning outcomes. Meanwhile, information literacy, the fifth key factor, displays a U-shaped nonlinear trend. (3) Both interactions involving affective engagement – one with social engagement and the other with self-regulation strategy – are beneficial for middle-school students' online learning. This study holds significant value as it has the potential to enhance educational practices, thereby improving student learning experiences and outcomes.

Yi, Z., & Siquan, X. (2025). **The Impact of Pre-Service Language Teachers' Basic Psychological Needs on Behavioural Intentions to Utilise Artificial Intelligence (AI) in Teaching: AI Literacy and Self-Efficacy as Mediators**. *European Journal of Education*, *60*(3), e70160. https://doi.org/10.1111/ejed.70160
Grounded in Self-Determination Theory (SDT), this study investigates how pre-service language teachers' psychological needs (autonomy, competence, relevance) influence their behavioural intentions to adopt AI, with AI literacy and self-efficacy as mediators. Structural equation modelling analysis of 562 Chinese pre-service language teachers revealed that satisfaction of psychological needs exerts a substantial and positive effect on behavioural intentions to utilise AI, which is mediated by AI literacy and self-efficacy. In particular, the perceived autonomy, relevance and competence of pre-service teachers are deemed to exert profound influence on AI literacy and AI self-

efficacy. The direct effect of autonomy and relevance on behavioural intentions is significant, whereas competence fails to exert a direct influence on behavioural intentions. This suggests that, through AI literacy, the satisfaction of competence can indirectly influence behavioural intentions to employ new technologies such as AI. These findings underscore the necessity of integrating psychological empowerment and technical competence cultivation in AI training programmes, offering actionable insights for fostering AI-integrated language education.

Zeng, T., & Gao, X. (Andy). (2025). **Motivations of Novice and Experienced Female Chinese Applied Linguistics Researchers to Participate in Peer Reviews**. *European Journal of Education*, *60*(3), e70154. https://doi.org/10.1111/ejed.70154
This article reports on an exploratory inquiry into the experiences of novice and experienced female Chinese applied linguistics researchers in their roles as peer reviewers. Using an ecological perspective to situate self-determination theory, we interpret participants' accounts of reviewing, gathered through semi-structured interviews, in this inquiry. The analysis suggests that the mesosystem (i.e., institution) has the most noticeable impact on female Chinese novice researchers' motivations to conduct reviews. Under the pressure of performance evaluations and promotion requirements, female Chinese novice researchers tend to be extrinsically motivated to write reviews for journals. In contrast, experienced researchers are likely to be intrinsically motivated as they associate doing reviews with a sense of autonomy, competence, and relatedness. The identified differences in the motivations of novice and experienced researchers for acting as reviewers suggest that the internalisation of review motivation—from extrinsic to intrinsic—could be an important part of the participants' professional growth from novice to experienced researchers. This points to opportunities for further study to compare researchers across different disciplines and cultural backgrounds, assessing how their motivations to conduct reviews evolve through different stages of their careers.

Zhang, F., & Derakhshan, A. (2025). **On the role of academic buoyancy and interpersonal emotion regulation in predicting Chinese EFL teachers' psychological well-being**. *International Journal of Educational Research*, *133*, 102722. https://doi.org/10.1016/j.ijer.2025.102722
There is a shared belief among educators that second/foreign language (L2) teachers' mental states can shape the way they deliver educational content, interact with students, and manage the learning environment. Such mental conditions are affected by diverse personal and interpersonal attributes, as noted in the literature. However, the contributions of academic buoyancy and interpersonal emotion regulation (IER) to English as a foreign language (EFL) teachers' psychological well-being (PWB) have been barely studied. To bridge this gap, the current inquiry probed into 295 Chinese EFL teachers' perceptions about the association among IER, buoyancy, and PWB using three validated scales. The results of structural equation modeling (SEM) uncovered that there were strong interrelationships among EFL teachers' academic buoyancy, IER, and PWB. Regression analysis also displayed that both academic buoyancy and IER could jointly predict 48.86 % of variances in the teachers' PWB. The results of this study cast more light on the contributions of personal and interpersonal attributes to L2 teachers' psycho-affective states and mental health in teaching English.

Zhang, J., Pan, W., Liang, X., & Ge, J. (2025). **Development and Validation of the ICAP GenAI Scale to Measure How Graduate Students Integrate Generative AI Into Academic Research**. *European Journal of Education*, *60*(3), e70209. https://doi.org/10.1111/ejed.70209

Generative artificial intelligence (GenAI) has profoundly reshaped how graduate students conceptualise, design and conduct academic research in higher education. While current metrics predominantly focus on technology acceptance and usage patterns, they often neglect the diverse cognitive engagements in graduate students' integration of GenAI across academic research activities. This study developed and validated a novel scale, grounded in the Interactive-Constructive-Active-Passive (ICAP) framework, to measure the integration of GenAI in academic research by graduate students. The scale development followed rigorous procedures beginning with a systematic literature review to create initial items, which were refined through expert reviews and pilot testing. Subsequently, two samples were created using data from 1216 Chinese graduate students across five disciplines (Arts and humanities, Social sciences, Science, Engineering, Medicine). For Sample 1, item-total correlation analysis and exploratory factor analysis were conducted, revealing four distinct factors: Passive, Active, Constructive and Interactive. Sample 2 was used for confirmatory factor analysis and validity testing. The finalised 27-item ICAP GenAI Scale exhibited excellent model fit, high reliability, robust construct validity and demographic invariance. This empirically validated tool not only advances our understanding of human-AI collaboration in academic research but also has significant implications for enhancing the research capabilities and higher-order thinking of graduate students in the AI-driven era.

Zhang, X., Zhou, M., & Kam, C. C. S. (2025). **How expressive communication enhances intercultural sensitivity in Chinese undergraduates: The mediating role of quality intergenerational communication and the moderating role of parental warmth**. *International Journal of Educational Research*, *133*, 102727. https://doi.org/10.1016/j.ijer.2025.102727

In an increasingly globalized world, fostering intercultural sensitivity is crucial for young adults navigating diverse environments. While research has traditionally emphasized individual traits and direct cultural exposure, the role of family and community dynamics remains underexplored, particularly in non-Western contexts. This study investigated how expressive communication style, quality intergenerational communication, and parental warmth shape intercultural sensitivity among 310 Chinese university students. Structural equation modeling revealed a direct positive link between expressive communication and intercultural sensitivity. Furthermore, quality intergenerational communication mediated this relationship, while parental warmth moderated its effects on students' attentiveness and engagement in intercultural interactions. These findings highlight the critical interplay of familial and societal factors in cultivating intercultural competence, suggesting that nurturing expressive communication within supportive family environments can effectively enhance students' intercultural sensitivity. By integrating family dynamics into established frameworks, this study expands theoretical understanding and offers practical strategies for cultivating intercultural competence through accessible practices.

Zhang, Ying, & Yang, S. (2025). **What Happens After Parental Neglect? Its Enduring Adverse Effect Through a Vicious Cycle Between Psychological Distress and Student**

Recognition. *European Journal of Education*, *60*(3), e70182. https://doi.org/10.1111/ejed.70182
Abundant literature has documented the far-reaching adverse impacts of parental neglect on later intrapersonal and interpersonal outcomes. However, the existing research has been limited, neglecting to investigate its enduring effects on various development domains simultaneously. Based on the developmental cascade model, this study investigates the longitudinal associations among parental neglect, psychological distress, and student recognition using a three-wave longitudinal design with 310 secondary school students in Chengdu, China. The results revealed that parental neglect was consistently and significantly associated with subsequent changes in psychological distress and student recognition. Additionally, the findings suggested a vicious cycle between student recognition and psychological distress, initiated by parental neglect, with psychological distress playing a more pivotal role in the risk process. These findings highlight the enduring negative effects of parental neglect on adolescents' subsequent development through dynamic interactions across different development domains. In addition to primary and secondary prevention strategies to reduce adolescents' experiences of parental neglect, a renewed focus on later-stage interventions—especially those addressing psychological distress—is essential to breaking the vicious cycle.

Zhang, Yizhu, Zeng, J., Long, W., & Pang, X. (2025). **The difference in mental health between students in boarding school and rented accommodation in Rural China**. *International Journal of Educational Research*, *133*, 102637. https://doi.org/10.1016/j.ijer.2025.102637
Understanding the mental health differences of children in various environments helps provide targeted psychological services to vulnerable children. In rural China, the implementation of school mergers and the migration of rural labor have resulted in an increase in the number of rural children residing in boarding schools or rented accommodation. However, the differences in the impacts of these two accommodation modes on children's mental health remain unclear. Utilizing survey data from 8032 rural fourth and fifth-grade students in Yulin City, we assessed the differences in mental health levels among children in boarding, rented accommodation and living at home, alongside gender differences. The results indicate that the mental health of children in rented accommodation is superior, even more than that of those living at home. And the adverse effects of boarding on mental health are significant solely for girls. These findings offer a new insight for policymaking regarding mental health education investments in rural primary schools and promote educational equity in China.

Zhao, G., & Mu, P. (2025). **The relationship between materialism and susceptibility to online fraud among Chinese college students: A moderated mediation model from trait and state perspectives**. *Asian Journal of Social Psychology*, *28*(3), e70040. https://doi.org/10.1111/ajsp.70040
Online fraud in China is increasingly targeting the younger population, with susceptibility to online fraud serving as a critical indicator for predicting this risk. This study explores the relationship between materialism and susceptibility to online fraud among Chinese college students, as well as the underlying mechanisms from both trait and state perspectives. Study 1 involved a survey of 827 Chinese college students utilizing a cross-sectional design, with the Materialism Values Scale for College Students, the Telecom Network Susceptibility to Internet Fraud Questionnaire, the Self-Control Scale for Chinese

College Students and the Social Comparison Effect Scale. Results revealed a positive correlation between materialism and susceptibility to online fraud, with self-control serving as a mediating factor and social comparison as a moderating factor. In Study 2, 144 Chinese college students were recruited for an experimental study to induce varying levels of materialism via a scrambled-sentence paradigm, while manipulating the direction of social comparison. Findings confirmed that materialism directly influences susceptibility to online fraud, with self-control as a mediating variable and social comparison as a moderating variable. In conclusion, under conditions of upward social comparison, materialism significantly heightens online fraud risk by undermining self-control. This study discusses these findings in detail and proposes future research directions.

Zubeidat, I., Dallasheh, W., Khalil, A. E., & Masri, A. S. (2025). **Personal resilience among novice teachers and teacher-interns in Arab society in Israel: demographic, socio-emotional and educational characteristics**. *International Journal of Inclusive Education*, *29*(10), 1797-1822. https://doi.org/10.1080/13603116.2024.2303155
Unlike previous studies that have investigated teachers' personal resilience, the current study sought to examine its demographic characteristics and its relationships with socio-emotional and educational factors, and to consider differences in personal resilience between novice teachers and teacher-interns with low, medium and high levels of personal resilience. The participants were 298 novice teachers and teacher-interns in Arab schools in the north of Israel, who filled out questionnaires that included demographic details, and measures of personal resilience, subjective happiness, positive and negative affect, self-esteem, social anxiety, and teaching motivation. The findings indicated significant differences between the participants on the relationship between personal resilience and teaching status, teaching internship and teaching seniority. In addition, a significant positive correlation was found between personal resilience and subjective happiness, but negative correlations were found between personal resilience and negative affect, social anxiety, social fear, and social avoidance. Significant differences were found between three categories (low, medium and high personal resilience) of novice teachers and teacher-interns for social avoidance, social anxiety, general affect, negative affect, and teaching motivation. The authors concluded that workshops for novice teachers and teacher-interns should focus primarily on reducing their levels of social avoidance, social anxiety and social fears, raising their levels of subjective happiness, and increasing their personal resilience, which is crucial for their success, perseverance, and optimal integration into the education system during the first years of their work.

Aspects sociaux de l'éducation

Addi-Raccah, A., & Streisfeld, S. (2025). **Social Gaps in Eligibility for a Matriculation Certificate in Israel: A Pre- and Post-COVID-19 Comparison**. *Social Justice Research*, *38*(3), 352-375. https://doi.org/10.1007/s11211-025-00461-5
The COVID-19 pandemic, as a global health crisis, has disrupted schools and students' lives, and raised concern about an increase in social inequality. Three hypotheses were examined: 1. Between pre-COVID-19, during COVID-19, and post-COVID-19, there will be a decrease over time in the percentage of matriculation certificate (PMC) and outstanding matriculation certificate eligibility (POMC) in schools; (H2) The decrease in

PMC over time will be greater in schools in the Arab sector compared to those in the Jewish sector and within each educational sector, in low-socioeconomic schools compared to high-socioeconomic schools; (H3) Sectorial and socioeconomic differences in schools' POMC eligibility over time will be greater than the PMC eligibility. These hypotheses were tested within the context of the Ministry of Education modification of the format of matriculation exams, at 12th grade. The data included 863 schools in the Jewish and Arab sectors on four time points: pre (2019), during (2020-2021), and post-COVID-19 (2022). Descriptive analysis and a two-level linear mixed model with repeated measures were conducted. An increase in the percentage of matriculation certificate eligibility was found in schools, particularly in disadvantaged ones, reducing sectoral and socioeconomic inequality. At the same time there was an increase in the percentage of outstanding matriculation certificates, mainly among advantaged schools, leading to an increase in inequality. The findings indicate a decrease in vertical stratification and an increase in horizontal stratification, emphasizing the complexity of promoting educational opportunities in the era of risk society.

Adukia, A., Feigenberg, B., & Momeni, F. (2025). **From Retributive to Restorative: An Alternative Approach to Justice in Schools**. *American Economic Review*, *115*(8), 2722-2754. https://doi.org/10.1257/aer.20230971
School districts historically approached conflict resolution from the perspective that suspending disruptive students was necessary to protect their classmates, even if this caused harm to perceived offenders. Restorative practices (RP)—focusing on reparation, accountability, and shared ownership of disciplinary justice—are designed to address undesirable behavior without harming students. We study Chicago Public Schools' adoption of RP and find that suspensions and arrests decreased, driven by effects for Black students. We find null effects on test score value added, ruling out meaningful average declines. We estimate a 15 percent decrease in out-of-school arrests, consistent with RP substantively changing student behavior.

Aghaz, A., Salmasi, S. D., & Mirzaee, M. (2025). **Cultural Values and Gender Differences in the Association Between Iranian University Professors' Authenticity and Generation Z Students' Intention to Migrate**. *European Journal of Education*, *60*(3), e70212. https://doi.org/10.1111/ejed.70212
Given the significance of authenticity in higher education institutions and the growing number of Iranian generation Z (Gen Z) students migrating to pursue Ph.D. degrees, this study aims to examine how university professors' authenticity influences Iran's Gen Z students' intention to migrate (ITM). Additionally, employing a horizontal and vertical individualism (VI)/collectivism (HVIC) classification, this study investigates how students' cultural values and their gender moderate the relationship between their university professors' authenticity and their educational migration intention. This research is a sample survey and data was gathered via an online survey. Gen Z MBA students studying at six high-ranked Iranian business schools were considered as the population. Overall, 337 responses were gathered. The results obtained through PLS-SEM indicated that students who perceive their professors to be more authentic are less inclined to decide on leaving the country for educational purposes. Moreover, whereas vertical collectivism (VC) and horizontal collectivism (HC) significantly moderate the impact of authentic leadership (AL) on the ITM, VI and horizontal individualism (HI) do not moderate the effect of AL on ITM. Furthermore, the results demonstrated that the negative relation between

the professors' authenticity and the students' ITM was stronger for female students in comparison with male ones.

Ahamed, A.-K. C., Delamotte, E., Kerneis, J., & Priolet, M. (2021). **Pratiques numériques des étudiants mahorais. Approches contextuelles entre insularités et mobilités**. In É. Remond, L. Massou, P. Bonfils, & K. Berrada (Éd.), *Actes du colloque TICEMED 11 : L'enseignement supérieur au défi de la mondialisation ? (Marrakech, 28-30 mars 2018)* (p. 153). Consulté à l'adresse https://hal.univ-reunion.fr/hal-03557022
Cette étude exploratoire vise à documenter les pratiques numériques effectives des étudiants de l'enseignement supérieur mahorais dans leur grande diversité et l'interculturalité qui caractérise ce milieu. Nous le ferons en nous appuyant sur les conclusions des travaux antérieurs menés sur le même territoire (Delamotte, Delamotte et Jarre, 2018). Nous nous demanderons donc si l'université, tout comme l'école mahoraise, est une institution insulaire : des points de vue identitaire, social, culturel et cognitif. Plus précisément, nous nous interrogerons, avec les étudiants, sur les manières de faire avec (de) l'espace (Stock, 2007) en milieu numérique (Hayles, 2012). Notre travail s'appuiera sur les cadres théoriques de la pédagogie universitaire et des humanités numériques en régime métissé (plurilingue et pluriculturel), de l'industrialisation de l'éducation et de la culture informationnelle des étudiants. Nous proposons tout d'abord une revue de littérature concernant les pratiques des étudiants avant de préciser ce que peut signifier habiter une île au XXIe siècle. La partie méthodologique met l'accent sur la particularité de notre approche qui s'appuie sur un collectif étudiant-chercheur. Elle privilégie dans un premier temps l'aspect quantitatif à travers un questionnaire présenté en annexe. Nous présentons ensuite les premiers résultats de cette enquête en soulignant leurs limites et les perspectives qu'ils ouvrent.

Akfirat, O. N., & Öztan Ulusoy, Y. (2025). **What has changed in five years? Perspectives of school counsellors on Syrian students**. *International Journal of Educational Research*, *133*, 102702. https://doi.org/10.1016/j.ijer.2025.102702
This study aims to examine the problems faced by Syrian refugee children attending schools in Türkiye and assess school counsellors' views on the interventions carried out for these students over five years (2018–2023). This research focuses on identifying changes in the challenges experienced by refugee children in their educational journeys and the measures implemented during this period. Data were collected from school counsellors working in both PICTES project and non-project schools across different cities in Türkiye. The data, obtained through a demographic information form and a semi-structured interview form, were analyzed using a phenomenological qualitative research design. A seven-step qualitative data analysis method was applied. The findings from the first and second data collection periods were evaluated separately, leading to the identification of codes, categories, and themes. The results indicate that language deficiency continued to be a determining factor in the adaptation challenges of Syrian students over the past five years, recurring across academic, social, and cultural adaptation categories. Additionally, it was found that Syrian students received support from school counseling services in 2018 primarily for adaptation and coping with trauma. In contrast, in 2023, support was primarily focused on school adaptation and academic achievement. However, challenges in cultural adaptation persisted in both periods. The importance of individual, group, and family activities in developing adaptive and language skills was emphasized.

Alemi, S. H. A., Cai, L., Jin, M., Hu, Y., & Qasim, J. (2025). **"I felt my life's achievements burning before my eyes": The Impact of the Taliban's Ban of Female Education on Afghan Female students in China's Universities**. *Higher Education*, *90*(1), 1-19. https://doi.org/10.1007/s10734-024-01305-y
The catastrophic collapse of Kabul in August 2021 had a profound impact on the entire nation, intensifying the challenges faced by female students both within and outside Afghanistan. The ban on female education imposed by the new regime has had significant ramifications. This study investigates the influence of this decree on Afghan female international students in Chinese universities. Through in-depth interviews with fifteen participants, the research evaluates their viewpoints on the decree, its impact, and their responses. The findings indicate that participants perceive the decree as an ideological attempt by the regime to reintroduce gender-based discrimination, which contradicts Afghanistan's native cultural values. This decree has brought about psychological complications for Afghan female students, including anxiety, depression, despair, isolation, and loneliness. Furthermore, it has resulted in insecurities and uncertainties regarding their future, with them choosing not to return to Afghanistan but rather seeking opportunities in mainland China and exploring asylum or migration opportunities in a third country after graduation. The study concludes that the new regime must refrain from implementing restrictive gender-based policies and should offer equal educational opportunities to all Afghans, regardless of gender or ethnicity. On the basis of these findings, this study recommends that the international community collaborate and convince the new regime to establish fair educational procedures. More specifically, it suggests that Chinese higher education institutions enhance support for international students from conflict-affected and unstable countries by providing psychological assistance and future opportunities. Such measures are likely to boost the academic progress and future prospects of Afghan female students and other international students from similar backgrounds.

Ansell, N. (2025). **Innovating for the Anthropocene in rural Lesotho schools**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w2
Since Western-style education was introduced to Africa in the 19th century, it has played a central role in producing the Anthropocene, shaping the attributes and aspirations of young people, and facilitating their incorporation into the global bioeconomy. In rural areas of the contemporary Global South, however, many young people find themselves surplus to the needs of today's global economy, but also alienated from rural life – both by schooling and by an increasingly hostile climate. In this paper, we describe the outcomes of an intervention in which 34 student teachers conducted action research in rural Lesotho schools, seeking to make education more meaningful to rural learners. While the student teachers found ways to engage learners in the curriculum, their interventions tended to reinforce the conventional role of schooling, rather than offering a more transformative pathway.

Antman, F. M., Skoy, E., & Flores, N. E. (2025). ***Can Better Information Reduce College Gender Gaps? The Impact of Relative Grade Signals on Academic Outcomes for Students in Introductory Economics*** (Working paper N° 18001). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp18001
This paper considers the impacts of grades and information on gender gaps in college major and college dropout rates at a large public flagship university. Observational and experimental results suggest women are more responsive to introductory economics

grades when deciding whether to major in economics while men are more responsive to introductory economics grades when deciding whether to drop out of college. Providing better information about grade distributions appears to only somewhat mitigate these impacts. These results suggest better information may blunt the impact of relative grade sensitivities on college gender gaps but may not fully outweigh the saliency of grades. Finally, we consider the extent to which aligning economics grading standards with those of competing disciplines would reduce the gender gap in economics graduates but find relatively limited impacts.

Arellano, A., Carrica-Ochoa, S., & Sotés-Elizalde, M. Á. (2025). **''As a mother, as a woman, as a Roma, what I want is to be surpassed'': Roma mothers' stories about their children's educational trajectories**. *International Journal of Educational Research*, *133*, 102703. https://doi.org/10.1016/j.ijer.2025.102703
Despite being one of the largest minority groups in Europe, the Roma people continue to face discrimination and segregation in education settings. Stereotypes and negative images of Roma people are still frequently occurring in the minds of the majority population, including professionals responsible for educational services and schools. Consequently, Roma children's educational trajectories are often marked by obstacles, and Roma families find it difficult to collaborate with education professionals. This study used a qualitative research method to explore Roma mothers' perspectives on their children's school life trajectories. The participants were 21 mothers of youth aged 12–18 years who gave semi-structured interviews. In total, 28 children of whom 22 were enrolled in the educational system at the time of the study. The interview content was thematically analysed using NVivo 12Pro. The results showed that Roma mothers value education as a relevant goal but have encountered many obstacles in their efforts to support their children's educational trajectories. Much remains to be done in terms of family–school relationships as well as regarding strengthening the role of the family as a support environment. Flexible assistance for families that is tailored to their specific needs and values is necessary. The research participants claimed to have experienced a more favourable reception in schools and thus concluded that such assistance could help them to more positively support their children.

Assefa, E. A. (2025). **Commitment to Gender Diversity Management: Satisfaction Levels in Ethiopian Public Higher Education Institutions**. *European Journal of Education*, *60*(3), e70208. https://doi.org/10.1111/ejed.70208
Diversity management, specifically gender diversity management (GDM), has increasingly emerged as a strategic priority. However, empirical research on the levels of commitment and satisfaction regarding GDM in Ethiopian public higher education institutions (HEIs) remains scarce or non-existent. This study aimed to empirically assess the commitment to and satisfaction with GDM in Ethiopian public HEIs, while also providing recommendations for improvements and insights to guide effective GDM practices. Employing a mixed-methods approach with a convergent parallel design, the study collected data from 34 respondents, including vice presidents, student deans, instructors, gender office heads and students, through semi-structured interviews. Additionally, 395 regular undergraduate students completed questionnaires. Observational methods and document analysis were also conducted. The results revealed a significant lack of commitment to and satisfaction with GDM among the selected Ethiopian HEIs, which could adversely impact the United Nations Sustainable Development Goals (SDG) 5, focused on gender equality. Furthermore, this research contributes valuable new insights

into the dynamics of commitment and satisfaction related to GDM. It is the first study of its kind to explore these issues within the specific context of Ethiopian public HEIs, highlighting the necessity for these institutions to foster greater commitment and satisfaction in GDM practices to promote diversity and inclusion effectively.

Avanesian, G., & Rozhkova, K. (2025). **The effect of non-cognitive skills on academic performance: does it vary by socio-economic status?** *International Journal of Educational Research*, *133*, 102680. https://doi.org/10.1016/j.ijer.2025.102680
Academic achievement at school as a crucial determinant of further educational attainment is largely affected by family socio-economic status (SES). Non-cognitive skills may, at least partly, mediate this effect and serve as a promising aim for educational policy in leveling educational inequality. Based on OECD Survey for Social and Emotional Skills (OECD SSES), this paper uses a mixed-effects modeling approach to explore the relationship between non-cognitive skills, SES, and academic achievement for schoolchildren from 8 cities in 7 countries. The results suggest that non-cognitive skills significantly reduce the effect of SES on achievement, although it depends on the differences in country-level socio-economic and cultural context. Task performance and open-mindedness are the most influential non-cognitive skills related to achievement, with the effect being most pronounced among low-SES children. Significant non-linear effects are also observed for collaboration. Overall, our models reveal that while individual student differences account for most of the variance in academic performance, there is a non-trivial proportion of variance explained by non-cognitive skills, particularly among high achievers. This underlines the potential of targeted interventions aimed at developing these skills to foster academic excellence, especially within socio-economically diverse urban environments.

Bataille, P., Déage, M., Baheu, M., Casse, R., & Mercklé, P. (2025). **L'espace social des précarités doctorales. Le cas des doctorant·es de l'Université Grenoble Alpes**. *Revue française des affaires sociales*, *252*(2), 137-173. https://doi.org/10.3917/rfas.252.0137
Cet article examine la précarité doctorale en s'appuyant sur le cas des doctorant·es de l'Université Grenoble Alpes (UGA). Il met en évidence le caractère multidimensionnel de cette précarité, qui ne se limite pas aux difficultés économiques, mais englobe également des aspects matériels, relationnels, professionnels et sanitaires. Il se propose ainsi de déplier les expériences de la précarité doctorale. L'étude repose sur une enquête menée en 2023-2024 auprès de 3 001 doctorant·es de l'UGA, avec un taux de réponse de 32 %. Après redressement des données, cinq formes spécifiques de précarité ont été identifiées. La précarité économique se manifeste par des revenus insuffisants, des restrictions budgétaires et une perception négative de la situation financière. La précarité résidentielle concerne l'accès au logement et ses conditions, une part importante des doctorant·es faisant face à des logements insalubres ou mal équipés. La précarité sanitaire, quant à elle, se traduit par une forte dégradation de la santé mentale et des renoncements aux soins. Sur le plan relationnel, l'isolement social et les difficultés de conciliation entre vie professionnelle et personnelle sont des enjeux majeurs. Enfin, la précarité professionnelle est liée aux conditions de travail, aux ressources disponibles et à l'encadrement. L'analyse factorielle multiple utilisée dans l'étude met en évidence trois grandes dimensions structurant la précarité doctorale : économique et matérielle, professionnelle, ainsi que relationnelle et sanitaire. Quatre profils de doctorants se distinguent en fonction de leur niveau d'exposition aux différentes formes de précarité. L'étude souligne également les disparités sociales face à ces formes de précarité : les

doctorant·es en situation de migration internationale et ceux et celles issu·es de milieux sociaux défavorisés sont particulièrement vulnérables sur le plan relationnel et économique ; les doctorant·es en sciences humaines et sociales apparaissent pour leur part davantage exposé·es aux difficultés professionnelles, économiques et sanitaires. D'un point de vue plus général, les analyses établissent le constat d'un niveau de santé plus faible chez les doctorant·es que dans l'ensemble de la population étudiante ainsi que des niveaux particulièrement élevés d'exposition aux risques de précarité matérielle et économique chez les doctorant·es étranger·ères.

Baute, S., & Bellani, L. (2025). **Healthcare deservingness: how risk factors and income shape responsibility attribution for health outcomes and healthcare costs**. *European Sociological Review*, *41*(3), 457-471. https://doi.org/10.1093/esr/jcae049
Amidst the global surge in healthcare expenditures, there is a growing political and academic debate about individual versus collective responsibility for health and healthcare costs. This study explores the causal effects of health risks and income cues on citizens' attribution of responsibility for health outcomes and healthcare costs. An original vignette experiment was conducted among the German population. Those in need of medical treatment who have been exposed to environmental, institutional, or biological health risks are held less responsible for their health outcomes than those exhibiting behavioural health risks. However, the impact of health risks appears to be somewhat weaker in determining who should bear the costs for the medical treatment. Furthermore, higher-income groups are more likely to be blamed for their health outcomes and are considered less deserving of society's help in paying for medical treatment. These findings enhance our understanding of how the criteria of control and economic need shape public attribution of responsibility in the health(care) domain.

Beaupère, N., & Collet, X. (2025). **D'un campus à l'autre, interroger les vulnérabilités des étudiants**. *Revue française des affaires sociales*, *252*(2), 93-112. https://doi.org/10.3917/rfas.252.0093
Cet article s'intéresse aux conditions de vie et d'études des étudiants inscrits dans différentes formations de l'enseignement supérieur sous le prisme des vulnérabilités. S'il mobilise un indicateur pour objectiver et mesurer ces situations, il vise surtout à mettre en lumière les effets de contexte, selon le lieu d'inscription des étudiants : antennes universitaires de ville moyenne ou universités de métropole. Les premières se distinguent a priori des secondes, car elles ont notamment pour mission de favoriser l'accès à l'enseignement supérieur des néobacheliers dans une perspective de proximité géographique. L'analyse des données tend à montrer que les lieux d'études n'influent pas sur la probabilité de vulnérabilités, mais les étudiants les plus vulnérables présentent des caractéristiques communes. Celles-ci relèvent bien souvent de l'autonomisation, choisie ou contrainte, qui implique des ressources dont les étudiants sont diversement dotés et rappellent les inégalités peu compensées par les aides sociales.

Bekele, T. A., & Amponsah, S. (2025). **Societal relevance of higher education: An Afrocentric theoretical framework**. *International Journal of Educational Research*, *133*, 102742. https://doi.org/10.1016/j.ijer.2025.102742
Recognizing the colonial legacy of African higher education, which predominantly embraced Western knowledge systems, this study calls for a paradigm shift toward incorporating African Indigenous knowledge systems to rejuvenate and sustain the sector's societal relevance. Employing philosophical methods of explication and

conceptual re-engineering on African individual and communal epistemologies, an Afrocentric framework of higher education societal relevance is proposed. The framework acknowledges the multidimensional, multiscalar and dynamic nature of the phenomenon. The core thesis is that higher education societal relevance is ubiquitous-all university missions and support structures embody it. The framework is conceived around five domains each highlighting different aspects of higher education societal relevance: substantive (attuning to the what of education), methodological (the how of education), teleological (the why of education), procedural (university governance), and relational (university-society engagements). Overall, the framework aims to foster a comprehensive understanding of higher education that is responsive to Africa's unique cultural, economic, historical, and social contexts and emerging needs. It signifies a critical first step towards redefining higher education to ensure its relevance and contribution to human and societal development, and to the transformation as well as preservation of African knowledge systems. This original and novel approach challenges the conceptual and philosophical underpinnings of the colonial higher education model and aligns with decolonization movements, discourses of Pan Africanism and African renaissance, and sustainable development. Further scholarship is warranted to further qualify the framework across diverse African contexts, thereby contributing to a more contextually relevant higher education landscape on the continent.

Bellicha, A., Karmouni, H. E., Dehove, H., & Frenkiel, É. (2025). **L'alimentation étudiante, du constat à l'action. Comment les universités peuvent-elles accompagner la transition vers une alimentation satisfaisante et de bonne qualité nutritionnelle ?** *Revue française des affaires sociales*, *252*(2), 309-326. https://doi.org/10.3917/rfas.252.0309

Benbow, R. J., & Lee, Y.-G. (2025). **Student Service Member/Veteran Engagement with University Military-Focused Student Services: A Mixed Methods Study**. *Innovative Higher Education*, *50*(4), 1381-1410. https://doi.org/10.1007/s10755-025-09786-0
Student service member/veteran (SSM/V) university enrollment grew exponentially through the 2000s and 2010s. In response, many U.S. universities developed military-focused student services to address SSM/V campus challenges. While research suggests these services are beneficial, few recent studies have examined how often SSM/Vs engage with them across institutions or how engagement may connect to important outcomes. Using social capital theory, this mixed methods study analyzes SSM/V military-focused service engagement frequency, correlations between engagement frequency and campus belonging and institutional satisfaction, and SSM/V perspectives on why they engage and its benefits. Findings suggest SSM/Vs rarely engage, though more frequent engagement significantly associates with belonging and satisfaction. Some SSM/Vs describe how military-focused administrative expertise and social support encouraged them to engage more often, inviting a greater sense of institutional fit and satisfaction. Others, however, describe being too busy, disinterested, or alienated from SSM/Vs and the military experience to engage or see affective benefits.

Benzer, T. (2025). ***Removing Cultural Barriers to Education: State-run Religious Schools and Girls' Education in Turkiye*** (Working paper N° 170). Consulté à l'adresse Aboa Centre for Economics website: https://EconPapers.repec.org/RePEc:tkk:dpaper:dp170
This paper studies the impact of access to state-run religious schools on girls' outcomes in T"urkiye. These schools, offering religious instruction and a conservative school environment, became accessible to girls following a 1976 court ruling. Exploiting variation

in exposure to religious schools across district centers and cohorts, I find that access increased secondary school completion among girls—with more pronounced effects observed in conservative areas—while having negligible effects on boys. Treated women later had lower fertility and higher labor force participation. The findings show that removing cultural barriers to education can promote schooling and public life integration for culturally marginalized groups.

Bhorkar, S. (2025). **Tutoring for the margins: addressing uncertainties and inequalities in the Indian education system**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w8
This paper explores the growing prevalence of private tutoring in India, particularly among marginalised students. India's stratified schooling system perpetuates disparities in educational access, quality, and outcomes. Private tutoring has emerged as a significant, yet unequal, component of the education landscape. Drawing on in-depth interviews with 22 education-sector stakeholders across four states, the study reveals that private tutoring is often perceived as beneficial for disadvantaged students amidst systemic uncertainties and inequalities in mainstream education. Despite its hierarchical nature, private tutoring was regarded as having an "enabling" potential. The paper critiques the reliance on tutoring as a compensatory mechanism and argues for addressing systemic deficiencies in mainstream education. It proposes integrating structured academic support into the mainstream education system to reduce opportunity gaps and promote equitable outcomes for marginalised students.

Biberman-Shalev, L., & Sabbagh, C. (2025). **Introduction: (Re)Shaping Educational Justice in the Post-COVID-19 Era**. *Social Justice Research*, *38*(3), 223-239. https://doi.org/10.1007/s11211-025-00463-3
The COVID-19 pandemic triggered an unprecedented global disruption to education systems, exposing and deepening pre-existing structural inequalities. This special issue of Social Justice Research (SJR), titled (Re)Shaping Educational Justice in the Post-COVID-19 Era, critically explores how the pandemic has reshaped normative debates and empirical realities concerning educational justice. Grounded in theories of distributive justice, the introduction conceptualizes education as a complex distributive sphere encompassing four interrelated domains: access to education, pedagogical practices, assessment and grading, and teacher–student relationships. Drawing on diverse international case studies, the special issue examines how these domains—framed as "distributive arenas"—were reconfigured during the COVID-19 crisis, catalyzing new justice claims and practices. While the pandemic exacerbated existing educational disparities, it simultaneously created openings for ethical reflection, pedagogical innovation, and redistributive action. By situating the seven contributions of the special issue within broader scholarly and policy discourses, the introduction calls for a justice-oriented reimagining of education—one that is more equitable, inclusive, and attuned to the diverse needs of learners. It concludes by urging future research to move beyond conventional distributive frameworks to engage with educational structural, cultural, and epistemic dimensions of injustice in an increasingly volatile and unequal world.

Blanden, J., Cassagneau-Francis, O., Macmillan, L., & Wyness, G. (2025). ***Private highs: Investigating university overmatch among students from elite schools*** (Working paper N° 25-07). Consulté à l'adresse UCL Centre for Education Policy and Equalising Opportunities website: https://EconPapers.repec.org/RePEc:ucl:cepeow:25-07

Inequality in elite college attendance is a key driver of intergenerational mobility. This paper shifts the focus upstream to examine how elite high school attendance - specifically, enrollment in UK private, fee-paying schools - shapes university destin- ations across the academic ability distribution. Using linked administrative data, we show that the main advantage conferred by private schools is not that their high- achieving students are more likely to access elite degree courses, but rather that their lower-achieving students are more likely to `overmatch' by attending more selective degree courses than might be expected given their grades. In particular, we show that lower attaining pupils from fee-paying high schools enrol in university courses around 15 percentiles higher ranked than similarly qualified state school students. The greater propensity of private school students to overmatch is driven largely by differences in application behavior, with even the weakest private school students aiming higher than their higher achieving state school peers.

Bonnéry, S. (2025). **Lecture avec les enfants**. *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 49-76. Consulté à l'adresse https://journals.openedition.org/rsa/6998
Les lectures partagées d'albums en familles, avec des enfants scolarisés en maternelle, permettent d'appréhender le développent de dispositions différentes, qui s'avèrent contribuer aux inégalités sociales de réussite scolaire si l'école s'appuie sur les socialisations familiales. La variation de ces dernières ne dépend pas seulement des habitudes culturelles des parents, mais aussi des conditions matérielles dans lesquelles l'enfant est éduqué : la situation financière et résidentielle des familles contraint leur budget, donc la taille de leur bibliothèque domestique, de même que leurs sources d'approvisionnement en livres, ce qui fait varier les types d'albums et les manières de lire auxquels exercent ces instruments de socialisation diversifiés. De plus, les socialisations à la lecture se comprennent mieux si on les resitue dans le cadre de la lignée et du rapport de celle-ci à l'école, en regard de la trajectoire des parents et des grands-parents. Ces résultats sont permis par la réactivation de choix de recherche qui étaient au cœur de l'ouvrage de Georges Liénard et Émile Servais.

Bréant, H. (2025). **Seul·es et à distance ? Éloignement et vulnérabilisation dans les parcours d'étudiant·es ultramarin·es dans l'Hexagone**. *Revue française des affaires sociales*, *252*(2), 197-215. https://doi.org/10.3917/rfas.252.0197
Cet article étudie la précarité ressentie des étudiant·es ultramarin·es en mobilité (ici depuis la Polynésie française) et cherche à comprendre comment l'éloignement peut être un facteur de vulnérabilisation de leur trajectoire. Alors que la dépendance financière aux proches est très importante pour les étudiant·es ultramarin·es qui étudient dans l'Hexagone ou à l'étranger, les premiers temps d'études font expérimenter une autonomie (affective, sociale et matérielle) soudaine et souvent mal vécue. Dans quelle mesure le fait de ne pas se sentir entouré·e et soutenu·e participe à dégrader les conditions de vie de ces étudiant·es ? Différentes stratégies permettent d'entretenir les liens familiaux et amicaux à distance, et d'amoindrir le sentiment d'isolement de ces étudiant·es, mais elles restent inégalement accessibles aux unes et aux autres. L'isolement est par ailleurs renforcé par le fait que les jeunes polynésien·nes interrogé·es se sentent régulièrement renvoyé·es à leurs origines, dans leurs échanges avec les étudiant·es métropolitain·es ou québécois·es. Dès lors, pour ne pas se retrouver en marge de leur promotion étudiante, ces jeunes développent des relations affinitaires avec d'autres étudiant·es ultramarin·es ou étranger·ères. En réalisant leurs études

supérieures loin de leur territoire, les étudiant·es polynésien·nes vivent une décohabitation imposée et une autonomisation accélérée qui, si elles ne sont que rarement affrontées seul·e, sont vécues très à distance des proches et peuvent fragiliser leur parcours.

Bugeja-Bloch, F., Clément, C., Fortino, S., Frouillou, L., & Oeser, A. (2025). **L'hétérogénéité des situations de précarités étudiantes. Étude de cas d'une université francilienne à partir du travail de la mission « Précarité et santé étudiante »**. *Revue française des affaires sociales*, *252*(2), 113-135. https://doi.org/10.3917/rfas.252.0113
À partir d'une méthode mixte (enquête par questionnaires puis par entretiens) auprès d'étudiant·es d'une université de première couronne francilienne, dans le cadre d'une mission de lutte contre la précarité, cet article propose une approche typologique des précarités étudiantes. Ces dernières ne se résument pas à la figure, centrale, d'une forte précarité multidimensionnelle, où les étranger·ères sont surreprésenté·es comme les personnes d'origine sociale populaire. En effet, les étudiant·es dont l'émancipation semble bloquée, celleux dont la trajectoire correspond à des décalages socioscolaires, ou celleux qui manquent de soutien à la suite de la décohabitation du logement parental incarnent d'autres facettes des précarités. L'articulation des méthodes et les décalages entre les matériaux quantitatif et qualitatif offrent des pistes d'analyse en mettant en évidence des porosités entre ces figures, soulignant ainsi les dimensions temporelle, subjective et contextuelle des situations de précarité étudiante.

Bukodi, E., & Goldthorpe, J. H. (2025). **Understanding trends in social fluidity in Western Europe: class structural change and the OED triangle**. *European Sociological Review*, *41*(3), 363-381. https://doi.org/10.1093/esr/jcae033
We start from a general theory of intergenerational class mobility previously proposed as an alternative to the 'liberal' theory. In further evaluating these theories, we report empirical analyses of relations within the origins–education–destinations (OED) triangle, drawing on data for individuals born 1923–1977 in 17 European societies. In contrast with earlier research, we treat education in relative terms. We find that the tendency for fluidity to increase within class structures after World War II, rather than being the expression of a 'worldwide secular trend', was restricted to a distinctive historical period of rapid economic growth and class structural change. Furthermore, in accounting for this increasing fluidity, the role of education may easily be exaggerated. The weakening of the 'direct' OD association is of at least comparable importance to changes in the OE and ED associations. Consistently with the proposed theory, class structural change, insofar as it promotes greater upward mobility, would also appear to provide a favourable context for increasing fluidity. Where downward mobility increases, the growing motivation and the capacity of more advantaged parents to protect their children against déclassement constitutes a powerful source of resistance to change in endogenous mobility regimes.

Bulsara, D., Parker, S., & Cornell, J. (2025). **Experiences and Perceptions of Academic Motivation in Adolescents With a Refugee Background: A Reflexive Thematic Analysis**. *European Journal of Education*, *60*(3), e70120. https://doi.org/10.1111/ejed.70120
Little previous research exists on academic motivation in refugee adolescents, and none has been conducted in the UK that might help educators to promote motivation and mitigate demotivation in the young people they support. The aim of this study is to help address this gap by exploring experiences and perceptions of academic motivation in

refugee adolescents settled in the UK. Semi-structured interviews were conducted in person or online with three refugee adolescents and six key informants who support the education of refugee adolescents. Data was interpreted by reflexive thematic analysis, which generated three themes: refugee adolescents are striving for stability and security; academic motivation is affected by social and academic relationships; and refugee adolescents are unique individuals with varied educational needs. Of particular note, positive social and academic relationships were found to be motivating, whereas instability in refugee adolescents' lives and negative interactions with teachers were demotivating. The findings also highlight the importance of recognising refugee adolescents' individuality and their unique characteristics, which inform their educational needs and academic motivation.

Bürmann, M., & Tsolak, D. (2025). **Much to lose, no credentials to prove it – Educational aspirations and intentions of adult refugees as means of occupational status re-attainment**. *European Sociological Review*, *41*(4), 516-537. https://doi.org/10.1093/esr/jcaf010
We analyse how educational aspirations and intentions of adult refugees in Germany are shaped by their foreign educational credentials and their previous occupational status. Because the allocation of medium-skilled jobs on the German labour market heavily relies on a variety of credentials, unlike in the countries of origin, where skills are usually acquired on the job but not formally certified, refugees often cannot provide the credentials required to work in their previous job. We use status allocation theory and the concept of relative risk aversion to formulate expectations as to why some refugees may be more inclined to emit higher educational aspirations. Based on the IAB-BAMF-SOEP Survey of Refugees we first show that the German labour market is stratified regarding educational credentials, while both refugees without and with medium professional credentials occupied positions with a very similar status in their countries of origin. Based on regression models, we show that in contrast to refugees with professional credentials, refugees without credentials have higher educational aspirations and intentions if they occupied high status positions in their country of origin. However, additional analyses did not reveal this positive effect for female refugees. We therefore conclude that especially male refugees who have much to lose, see additional education as a salient way to avoid occupational status downgrades after migration. We conclude with a discussion of gender-specific mechanisms potentially at play shortly after migration and discuss the generalizability of our findings to other types and contexts of migration.

Butcher, L., & Lane, S. (2025). **Neurodivergent (Autism and ADHD) student experiences of access and inclusion in higher education: an ecological systems theory perspective**. *Higher Education*, *90*(1), 243-263. https://doi.org/10.1007/s10734-024-01319-6
Higher Education (HE) can be a complicated and isolating experience for neurodivergent students. Many systemic barriers and injustices create challenges for the accessibility and inclusivity of learning environments and curriculums. However, with the appropriate accommodations, staff guided by neurodiversity-affirming practices, accessible curricula, and opportunities to connect with neurodivergent peers, it can be highly rewarding. Through 15 in-depth, lived-experience-informed interviews with neurodivergent HE students who are Autistic and/or ADHDers in Australia, we analyse experiences at different system levels. By validating the robust framework of ecological systems theory in this context, we extend the academic understanding and add to the limited research on HE experiences for this marginalised, often ignored, but important

student segment. We discover pivotal micro-systems of curricula, assessments, reasonable adjustment plans, spaces, teachers, students, and support services. Further contributions are made through the first extension of 'feedback loops' into research of HE micro-systems, and descriptions of macro and chrono-systems. With many HE systems erected and emergent to cater to the student majority, illuminating the experiences of neurodivergent students with these intersecting HE systems provides concrete insights for leadership, teachers, and support staff to improve accessibility and inclusion in HE.

Cao, J., & Luo, H. (2025). **Combining virtual reality and EEG biofeedback for enhanced EFL learning: a sociocultural approach**. *Education and Information Technologies*, *30*(11), 15299-15328. https://doi.org/10.1007/s10639-025-13348-4
This study investigated the effectiveness of a Virtual Reality (VR) intervention with integrated Electroencephalography (EEG) biofeedback (VR-EEG) in enhancing English as a Foreign Language (EFL) learner proficiency compared to a traditional classroom setting. Learners (N = 60) were randomly assigned to either the VR-EEG group or the traditional classroom group. Both groups received 60 h of EFL instruction over four weeks. The VR-EEG group participated in VR learning environments with real-time adjustments based on their EEG data, while the traditional classroom group received conventional EFL instruction. Pre-test and post-test assessments evaluated EFL proficiency in vocabulary knowledge, grammar accuracy, speaking fluency, and learner engagement. The results revealed that the VR-EEG group demonstrated a statistically significant improvement in overall EFL proficiency, particularly in vocabulary acquisition, compared to the traditional classroom group. Additionally, the VR-EEG group reported higher levels of engagement. EEG data analysis for the VR-EEG group provided preliminary insights into the neural correlates associated with performance and engagement within the VR environment, specifically examining how alpha and beta wave activity relate to attention and cognitive processing during language learning tasks. This analysis explored the potential of EEG biofeedback to optimize learning by dynamically adjusting task difficulty and providing personalized support within the learner's Zone of Proximal Development. These findings suggest that VR-EEG technology has promising potential as a method for enhancing EFL learner proficiency and warrants further investigation.

Caro, M., & Gaffiot, J. (2025). **La santé des étudiant·es : une affaire de famille**. *Revue française des affaires sociales*, *252*(2), 245-263. https://doi.org/10.3917/rfas.252.0245
Cet article situe l'expérience étudiante dans celle du « devenir adulte », et étudie le rapport à la santé comme dimension d'une trajectoire d'autonomisation dans laquelle s'inscrivent les étudiant·es. Il se fonde sur un corpus d'entretiens semi-directifs menés avec quarante étudiant·es boursier·ères et non boursier·ères, représentant une diversité de profils en termes de catégories sociales, de formations et de types d'établissements, dans trois territoires d'études de France hexagonale. L'enquête éclaire en quoi le rapport des étudiant·es à la santé – en termes de recours et d'accès aux soins et aux droits sociaux – est empreint du lien de filiation, dans une forme d'ambivalence normative, entre dépendance parentale et prise d'indépendance individuelle. D'une part, elle montre en quoi la famille joue un rôle majeur en tant que ressource inégalement mobilisable par les étudiant·es face aux épreuves vécues pendant cette période, et qui peuvent affecter leur santé. Pour certain·es étudiant·es, la santé se présente comme un espace de prise d'autonomie, au gré de nouvelles sociabilités, mais aussi de distanciations familiales. D'autre part, elle explore les effets de la familialisation

de la politique de couverture santé. L'accès à la couverture complémentaire des étudiant·es répond à une norme de prise en charge parentale : alors même qu'elle conditionne en partie leur accès aux soins, elle demeure étroitement liée aux situations familiales. L'article montre alors plus spécifiquement en quoi les ruptures familiales peuvent être sources de non-recours aux soins des étudiant·es.

Castaño-Muñoz, J., Moreno-Morilla, C., Reina-Parrado, M., & Lopez-Cobo, I. (2025). **Unheard voices: Identifying aspects for an inclusive digital education through the lens of low-income contexts schools**. *Education and Information Technologies*, *30*(13), 17909-17930. https://doi.org/10.1007/s10639-025-13490-z
This study explores the perceptions, experiences and challenges of schools located in disadvantaged areas regarding the integration of digital technologies in their functioning. Through eight case studies, in which principals, teachers and students were involved, we identified the main challenges that these schools face every day, which were grouped into three areas: a) breaking the hidden digital divide, b) teacher training for culturally responsive teaching, and c) use of technology as a bridge between home and schools. The results show that, in order to prevent digitalisation from increasing the existing divide among schools of different socioeconomic and cultural levels, it is necessary to design inclusive policies for educational digital transformation that take into account the particularities and voices of these schools.

Castillo, J. C., Iturra, J., & Carrasco, K. (2025). **Changes in the Justification of Educational Inequalities: The Role of Perceptions of Inequality and Meritocracy During the COVID Pandemic**. *Social Justice Research*, *38*(3), 240-263. https://doi.org/10.1007/s11211-025-00458-0
Education is considered a key tool for social mobility and equality of opportunities. However, despite the widespread value of education, disparities in educational outcomes persist over time. This paper is guided by the following research questions: To what extent are such educational disparities justified in society? Is the justification of educational inequality affected in periods of personal and social vulnerability, as in the COVID-19 pandemic? And, what are the main factors driving this kind of justification? The Chilean case offers an interesting context for this study given its high economic inequality, deep neoliberal policies, and commodification of social services such as education. This economic and cultural environment has promoted meritocratic ideals, whereby individual talent and effort are considered key to get ahead in life, disregarding opportunities linked to social origin. The central argument of this article is that the justification of inequalities weakens during periods of vulnerability and crisis (such as the health and economic crisis resulting from the COVID-19 pandemic). Furthermore, we argue that such changes could be linked to a challenge of meritocratic ideals. For testing the research hypotheses we estimate a series of longitudinal multilevel models with data from a Chilean longitudinal panel survey (2016 – 2023, 6 waves, N = 2,927). Whereas we find support for the association between the perception of meritocracy and justification of inequality, the analyses that involved changes over time showed an increase in the justification of inequality in education. The discussion of these results delves into the social consequences of justifying inequality in a sensitive area as education, as well as the persistence of meritocratic ideals despite challenging events.

Castillo, S., Valenzuela, A., & Hinds, C. (2025). **Organizing and youth resistance: the fight for trans rights in Texas**. *International Journal of Qualitative Studies in Education*, *38*(8), 1246-1265. https://doi.org/10.1080/09518398.2025.2502060
The civil rights of transgender and non-binary youth in Texas were the focus of proposed laws during the 87th and 88th legislative sessions. These laws aimed to restrict access to educational resources, healthcare, and transition services. The response from non-profit organizations and youth-led protest movements represented a significant change in political engagement among transgender and non-binary students from Gen-Z (born between 1997 and 2012) and Gen-Alpha (born between 2010 and 2024). Growing cooperation among youth on online platforms for coordinating protests indicates a transformation in political participation. This study investigates youth resistance strategies and organizational efforts by analyzing testimonies from transgender and non-binary youth leaders.

Çetin, S. (2025). **Equity in assessment: Addressing systemic barriers for visually impaired students**. *International Journal of Educational Research*, *133*, 102757. https://doi.org/10.1016/j.ijer.2025.102757
This qualitative study explores barriers that visually impaired students face in Turkey's high-stakes educational assessments, employing the social model of disability. Through semi-structured interviews with 24 visually impaired adults (aged 20–42), three themes emerged: (1) Accessibility and Accommodation Challenges, including inadequate braille materials, inaccessible exam centers, and untrained readers; (2) Lack of Teacher Training, reflecting educators' unpreparedness and discriminatory attitudes; and (3) Technological Solutions and Gaps, where assistive tools like screen readers are beneficial but limited by cost and infrastructure. Findings reveal how Turkey's assessment system, rooted in a medical model, perpetuates inequities, particularly for low-income students. Inconsistent accommodations, such as extra time and reliance on poorly trained readers, hinder equitable participation. The study proposes standardized accommodations, universal design for learning (UDL)-based teacher training, and state-funded technologies to transform assessment practices. Focusing on visually impaired students' voices challenges normative paradigms and contributes to global discourses on inclusive education. Turkey's experiences offer lessons for low- and middle-income countries (LMICs), where resource constraints mirror these barriers, and high-income nations, where inconsistent implementation persists. The findings advocate a social-relational model, redefining disability as a product of structural obstacles, and call for proactive, inclusive assessment systems worldwide.

Chevalier, T. (2025). **Être étudiant augmente-t-il le risque de précarité ?** *Revue française des affaires sociales*, *252*(2), 35-55. https://doi.org/10.3917/rfas.252.0035
La précarité est un phénomène d'ampleur dans la population étudiante. Pourtant, les étudiants représentent une partie de la population dont on sait non seulement qu'ils viennent de milieux plus favorisés que le reste de la population, mais qu'ils accéderont aussi à des emplois mieux rémunérés. Comment donc caractériser la situation des étudiants en termes de précarité en comparaison avec les autres jeunes ? Nous montrons que la précarité des étudiants est à double face car il faut la resituer dans le temps et le cours de vie des individus. D'un côté, à court terme, les étudiants peuvent en effet subir des conditions de vie dégradées, si on les compare à d'autres jeunes. De l'autre, à plus long terme, ils investissent dans leur capital humain et, par conséquent, ont une projection dans le futur plutôt positive en termes de précarité. Autrement dit, s'ils

souffrent de précarité aujourd'hui, ils savent que c'est pour en sortir demain. Répondre à la question de l'effet de la poursuite d'études sur la précarité étudiante dépend donc du moment dont on parle : aujourd'hui ou demain ? Nous mobilisons les données du Baromètre d'opinion de la Drees pour renseigner cette double face de la précarité étudiante.

Choi, B., & Park, S. (2025). **Does the conception of bullying differ by gender? Examining differences in factor structures, longitudinal stabilities, and victimization-perpetration overlap**. *International Journal of Educational Research*, *133*, 102739. https://doi.org/10.1016/j.ijer.2025.102739
While prior research has suggested that boys and girls conceptualize bullying differently-boys' bullying being more physical and girls' more relational—and that their longitudinal characteristics may vary accordingly, these hypotheses have not been tested empirically. The current study addresses this gap by employing multi-group analysis on a cross-lagged panel model to examine whether the factor structures (i.e., metric invariance), longitudinal stabilities, and interrelationships (i.e., structural invariance) of bullying perpetration and victimization differ by gender. Data were drawn from Seoul Education Longitudinal Study for three waves (7th to 9th grade) with 3617 South Korean adolescents (age mean= 12.43, standard deviation=1.48 in the first wave). The results of the factor structure analysis indicated that boys' bullying was both physically and relationally focused, whereas girls' bullying was predominantly relational. Furthermore, girls' bullying perpetration and victimization demonstrated greater longitudinal stability, with stronger victimization-to-perpetration pathways compared to boys. These findings highlight that the conceptualization of bullying differs by gender, and these qualitative differences in how bullying is constructed can provide critical insights into understanding its longitudinal stability and victimization-perpetration overlap.

Chudnovskaya, M., & Michaud, C. (2024). **Homogamie éducative des diplômés universitaires en Suède. Une analyse des ressorts socio-économiques**. *Population*, *79*(4), 507-530. https://doi.org/10.3917/popu.2404.0507
Cette étude analyse l'influence du statut socio-économique des diplômés de l'enseignement supérieur sur la probabilité de former un couple homogame (mariage ou union libre avec enfant). Elle se place dans une réflexion plus large sur l'homogamie et l'hypogamie éducative, au moment où l'expansion de l'enseignement supérieur se traduit par une surreprésentation des femmes parmi les personnes les plus instruites. Au-delà du passage indéniable de l'hypogamie à l'hypergamie éducative, cette étude se concentre sur les caractéristiques des couples formés par les diplômés universitaires. L'échantillon comprend des femmes et des hommes diplômés, en couple, nés entre 1972 et 1977 (n = 156 253), et tous recensés dans les registres administratifs suédois (registres de mariage et de naissance). Bien que la Suède jouisse d'une solide réputation de société égalitaire, de fortes disparités entre les sexes persistent au sein de son système d'enseignement supérieur. Les hommes titulaires d'un diplôme universitaire sont moins nombreux que les femmes, mais ils bénéficient d'une sélection plus importante. Souvent issus de parents du secteur tertiaire supérieur, ils obtiennent des diplômes plus élevés qui leur permettent de mieux gagner leur vie. Notre analyse approfondie de l'homogamie s'appuie sur des modèles de régression logistique multinomiale, et spécifie, pour chaque individu marié ou en union libre avec enfant, le niveau d'instruction du conjoint : aucun diplôme universitaire, diplôme universitaire de niveau supérieur, de même niveau, ou de niveau inférieur. En ce qui concerne les femmes diplômées, nos résultats révèlent que

des différences socio-économiques significatives influencent la probabilité de former un couple homogame. Pour ce qui est des hommes diplômés, certaines inégalités sont observées en matière d'homogamie, mais le type ou la durée du diplôme sont moins prédictifs que pour les femmes.

Croizet, J., & Millet, M. (2024). **How preschool education perpetuates social inequality: An ethnographic study of the practical conditions of symbolic violence**. *Journal of Social Issues*, *80*(4), 1345-1378. https://doi.org/10.1111/josi.12654
This article presents an ethnographic study conducted in French pre-kindergarten and kindergarten classrooms, investigating how education establishes and reinforces relations of sociocultural dominance. Building on Bourdieu and Passeron's concept of symbolic violence, we seek to uncover the mechanisms through which school socialization encourages the acceptance of the hierarchies it generates. The data suggest that this persuasion relies on set of interrelated processes: Schools organize the unequal profitability of family cultural practices and knowledge, obscure the realities of learning, and foster a meritocratic myth that naturalizes these inequalities. Moreover, children actively participate in their own subordination without realizing it. By documenting these processes, the study provides critical insights into how everyday schooling practices not only perpetuate social inequalities but also shape early on the idea that students form of themselves as both students and individuals and intensify concerns about self-worth.

Curtis, S. J., & Evans-Winters, V. E. (2025). **Research beyond the gaze: Black feminism and youth participatory action research as critical qualitative interventions**. *International Journal of Qualitative Studies in Education*, *38*(8), 1207-1225. https://doi.org/10.1080/09518398.2025.2502071
Considering recent attempts to silence racial and gender discourse by banning books, gutting K-12 curriculum, and strategic attacks on higher education equity efforts, we illustrate how anti-racist and feminist methodologies, alongside Black feminist pedagogies, serve as mitigating factors against orchestrated assaults on social justice endeavors across educational settings. Drawing upon Black feminist pedagogies as embodied inquiry and political critique, we illustrate the interconnectedness of Black women's pedagogy, Black girls' civic and social consciousness, and the promise of emancipatory research.

De Pascale, C., & Draelants, H. (2025). **Retour sur la notion de transmission osmotique**. *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 133-153. Consulté à l'adresse https://journals.openedition.org/rsa/7189
Cet article revient sur les conditions concrètes de transmission ou de non-transmission du capital culturel, à partir d'une discussion de l'ouvrage Capital culturel et inégalités sociales de Liénard et Servais. La notion de transmission osmotique, popularisée par les travaux de Bourdieu et Passeron et aujourd'hui débattue, sert de point de départ à la discussion. L'ouvrage de Liénard et Servais reprend en effet la notion, mais, par son analyse des conditions concrètes de transmission culturelle, il permet de mieux la cerner. En nous appuyant sur les descriptions empiriques de la vie familiale quotidienne qui figurent dans leur livre, en particulier celles qui sont analysées comme étant à la source de l'aisance sociale nous mettons en évidence ce que le capital culturel doit au capital économique et au travail domestique et à sa division fortement genrée. La transmission culturelle dépend du capital économique compte tenu des conditions pratiques,

matérielles et temporelles, de la transmission pédagogique au quotidien, mais aussi des efforts éducatifs objectifs de la part des parents et surtout des mères de famille, qui ont cependant tendance à taire ces efforts pour présenter leurs enfants comme doués et naturellement réceptifs à la culture. La métaphore du « bain culturel », qui suppose que l'enfant peut acquérir un capital culturel simplement en se trouvant dans un environnement culturel riche, est en fin de compte remplacée par une conception de la transmission osmotique comprise comme une transmission continue et diffuse, mais qui n'est ni mécanique ni passive.

Demetriades, C. (Éd.). (2025). ***Jeunes en souffrance d'exclusion: dispositifs cliniques des missions locales et leurs partenaires***. Toulouse: Érès éditions. https://www.editions-eres.com/ouvrage/5393/jeunes-en-souffrance-dexclusion
Les auteurs démontrent que certaines souffrances sont à la fois l origine et le résultat de l exclusion. Dans les Missions locales, ils vont à la rencontre des jeunes les plus vulnérables et déploient une approche globale de santé mentale, afin de prévenir les risques d effondrement psychique et de destructivité. Cet ouvrage est un plaidoyer clinique, social et politique pour la lutte contre les exclusions

Depoil, M., Groeninger, F., & Vennin, L. (2025). **Entre sciences sociales et pratiques militantes : l'éducation populaire au prisme de la radicalité**. *Tréma*, (63). https://doi.org/10.4000/13r4x
Introduction On assiste à l'émergence d'un consensus scientifique non seulement sur l'absence d'une définition commune et partagée de l'éducation populaire, mais plus encore sur le caractère normatif voire politique de toute tentative de circonscription ou définition. Si bien que l'on parle souvent d'une « définition introuvable » : l'expression signale combien ce travail de mise en mots est difficile, imparfait, et surtout combien la circonscription même du champ dépasse le cadre discursif o...

Depoilly, S. (2025). **Des mères et des filles des milieux populaires**. *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 181-206. Consulté à l'adresse https://journals.openedition.org/rsa/7343
Cet article se fonde sur une enquête ethnographique conduite auprès de lycéennes professionnelles scolarisées dans des filières de baccalauréat professionnel soins et services aux personnes et aux territoires (bac pro sapat), filières au recrutement féminin et populaire. Il s'intéresse à l'étude des dynamiques socialisatrices familiales qui s'exercent, dans ce contexte, essentiellement en lignée féminine. Ces dynamiques socialisatrices s'incarnent, d'une part, dans des formes spécifiques de mobilisation sur les scolarités et, d'autre part, dans des pratiques socialisatrices domestiques familiales qui engagent prioritairement les filles. Ces expériences permettent en retour de mieux comprendre comment les lycéennes s'approprient leur formation sur un double registre non contradictoire : celui de la vocation et de la compétence.

Desombre, C., Delaval, M., Gimenes, G., Picques, P., & Benbouriche, M. (2025). **Déconstruire les stéréotypes de genre en milieu scolaire : une évaluation des effets d'une semaine de promotion de l'égalité filles-garçons**. *Sexologies*, *34*(1), 25-33. https://doi.org/10.1684/sexol.2025.57
At school, gender equality is important. In the Hauts-de-France region, a week to promote equality between girls and boys is organized every year. The aim of this article is to measure the impact of interventions implemented during this week. Two groups of

students were formed: an experimental group who received interventions on the issue of gender stereotypes (n = 920) and a control group who did not (n = 82). Pupils were asked to complete Golombok and Rust's (1993) inventory of extracurricular activities on three occasions (before the week, one week after and three weeks after), measuring adherence to gender roles with regard to toys, activities and character traits. The results indicate that both groups - experimental and control - have a higher ratio of non-stereotyped responses at the second measurement time than at the first, suggesting a learning effect of the questionnaire. This ratio increased between times 2 and 3 only for the experimental group. Even if these results need to be replicated, this last result tends to show the effectiveness of the interventions proposed by the teachers.

Domínguez, A. D., & Casanova, C. R. (2025). **What is my truth and who decides?: exploring viable social identity scripts and performances with latina/x artivists in an arts-based youth participatory action research troupe**. *International Journal of Qualitative Studies in Education*, *38*(7), 956-971. https://doi.org/10.1080/09518398.2024.2416718
This seven-month critical performance ethnographic study explores the lived experiences of Latina/x youth artivist-researchers. The data collected through participant observations, arts-based elicitation and semi-structured interviews, artifacts, and analytic memos reveal how Latina/x youth utilize artmaking to understand and construct a viable social identity. Their participation in an arts-based youth participatory action research (YPAR) project and intergenerational theatre ensemble we call Estrella Theatre (ET) company indicates how art and social justice-driven inquiry provokes reflection on the identity scripts and performances youth use in our daily lives. Findings reveal that Latina/x youth identity scripts and performances appear across personal, interpersonal, and social planes of identity where they experience identity clashes, artful identity development, new identities, and identity code-switching.

Du, J., & Gan, F. (2025). **Servant leadership and citizenship behavior via STEAM education: Community action research on a Chinese charity organization for rural children**. *International Journal of Educational Research*, *133*, 102647. https://doi.org/10.1016/j.ijer.2025.102647
Despite the crucial roles of international and national non-governmental organizations in promoting global civil movement through education, and China's significant engagement with the global public in recent decades, far too limited attention has been paid to domestic voluntary and regional charity organizations. Accordingly, this community action research explores the role of science, technology, engineering, arts, and mathematics (STEAM) education and its impact on rural Chinese schooling. The research investigates how Chinese STEAM enterprisers, professionals, academics, teachers, and students engage in voluntary programming to support rural children in Jiangxi Province. Adopting the concepts of servant leadership and citizenship, this research addresses two primary research questions related to: (1) the major challenges faced by the subject rural community and their children and (2) volunteer motivations and perceptions of servant leadership and citizenship behaviors. The findings show that challenges included population decline, a lack of parental involvement, and digital divides. Volunteers' motivations are rooted in historical and intergenerational narratives and social responsibility, aligning with their core socialist values. The study highlights the interplay of servant leadership, citizenship, and STEAM education in fostering rural community development. It proposes future action research agendas to develop experiential learning frameworks in STEAM education and praxis, thereby increasing

voluntary motivations and bridging educational disparities in the Chinese national context of the rural-urban divide and digital gap.

Duportail, C., Caseau, A.-C., & Mofakhami, M. (2025). **Les actions menées par le ministère de l'Enseignement supérieur et de la Recherche pour lutter contre les formes de la précarité étudiante**. *Revue française des affaires sociales*, *252*(2), 327-337. https://doi.org/10.3917/rfas.252.0327

Duran, N. S., & Lleras, C. L. (2025). **Neighborhood Disadvantage, Peer Acceptance, and Sense of Belonging among Middle School Students**. *Child Indicators Research*, *18*(4), 1905-1926. https://doi.org/10.1007/s12187-025-10264-4
Prior studies have demonstrated how living in economically disadvantaged and dangerous neighborhoods is associated with poorer developmental outcomes including depressed academic achievement, poorer physical and mental health, and lower school engagement. At the same time, studies have shown peer acceptance and school belonging are closely connected such that when youth feel more accepted by their classmates, they feel happier and more secure and exhibit greater academic motivation and classroom engagement. Our study builds on these prior bodies of work by examining how neighborhood disadvantage and the quality of peer relationships in school influence students' sense of belonging in middle school. This study utilized data from the last wave of the Early Childhood Longitudinal Study – Kindergarten Cohort (1998–1999) when students were in eighth grade combined with tract-level data from the 2000 Census to conduct multilevel regression analyses. The findings suggest youth living in more structurally disadvantaged neighborhoods reported lower school belonging at the end of eighth grade. Consistent with prior studies, we also found youth who felt more accepted by their peers had a greater sense of school belonging, regardless of the kinds of neighborhoods, schools, and families they were living in suggesting that peer acceptance may play a powerful role in creating school attachment during adolescence. The demonstrated impact of peer acceptance on school belonging highlights the importance of fostering opportunities for socialization through school-based programs and practices which may foster greater school attachment and improve educational attainment.

Erdreich, L. (2025). **Digital Well-Being and Superdigital Citizenship: A Class Comparison of Parenting Practices for Remote Learning**. *Social Justice Research*, *38*(3), 332-351. https://doi.org/10.1007/s11211-025-00454-4
Using the pandemic as a natural laboratory for exploring edtech, this study is concerned with the changes in parental involvement that the demands of remote-learning elicited and implications for educational justice across classes. Interviews with 25 middle-class and low-income parents revealed classed practices of parental involvement in remote-learning: middle-class parents espouse a digital well-being approach while low-income parents espouse a superdigital citizenship approach. The former is concerned with maintaining what parents see as a healthy balance between children's digital activity and school learning; the latter with ensuring children have access to what parents see as varied resources and opportunities for learning and social connection available online and in face-to-face daily interaction, particularly in school. Classed practices of parental involvement reveal that parental involvement is a salient sphere of educational justice particularly in the context of educational technology implementation, and are implicated in issues of cultural and distributive justice.

Ernas, S., & Taşkın, P. (2025). **Vocational education for refugee students in Türkiye: navigating social exclusion, poverty, and precarity in a stratified policy context**. *International Journal of Educational Research*, *133*, 102758. https://doi.org/10.1016/j.ijer.2025.102758

This study explores the experiences of refugee students enrolled in Vocational Training Centers (VTCs) in Türkiye, illuminating how economic imperatives and legal frameworks shape their educational trajectories. Drawing on qualitative data from students, parents, and educators, it finds that VTCs function primarily as pathways for rapid labor market integration, rather than fostering holistic development, critical thinking, and democratic engagement. Participants describe educational environments marked by limited academic content, irregular school attendance, and exclusionary workplace practices, which collectively reinforce social stratification and constrain opportunities for mobility. While VTCs offer refugee youth pragmatic responses to immediate economic pressures, this narrow focus risks reducing education to a tool of short-term survival, sidelining broader social and civic goals. The study calls for inclusive and critical pedagogical approaches that empower refugee students for meaningful civic and economic participation in society. Policy recommendations include aligning vocational education with knowledge-based models responsive to both labor market demands and the specific social integration needs of refugee students, strengthening pathways to higher education, and fostering collaboration between educational institutions and labor market actors. Ultimately, this study suggests that reimagining VTCs as inclusive, future-oriented spaces is crucial for transcending purely utilitarian paradigms and better promoting social justice and democratic participation for refugee youth.

Espinoza, A. M., Strasser, K., Kessels, U., & Morales, M. F. (2025). **Stereotyped perceptions of readers: an experimental vignette study with high school students and teachers**. *International Journal of Educational Research*, *133*, 102744. https://doi.org/10.1016/j.ijer.2025.102744

In many countries, there are medium to large gender gaps in reading achievement and motivation in favor of female students. Since research does not show substantive gender differences in verbal skills, socio-cognitive factors, such as stereotypes associated with reading, become a plausible explanation for these gender gaps. A vignette study was conducted to test whether high school students and teachers have stereotypical perceptions about boys and girls who like to read. The study used a 2 (target's gender: boy vs. girl) x 2 (target's reading enjoyment: low vs. high) factorial design to examine the effect of a character's gender and reading enjoyment on participants' judgments about the character's academic traits, popularity, and gender expression. Participants were 296 high school students and 135 Chilean high school language-teachers in Santiago (Chile). Multivariate analysis of variance (MANOVA) and follow-up univariate ANOVAs with Bonferroni corrections showed that students hold gender stereotypes about reading because they perceive reading to be more associated with femininity than masculinity. Additionally, both students and teachers perceive characters who like to read as having more academic traits and being less popular than characters who do not enjoy reading. Contrary to expectations, no interaction effects between gender and reading enjoyment were found. These findings provide empirical evidence regarding a relevant topic in education -sources of inequalities in reading achievement. Such results may offer a preliminary basis for identifying general directions for policies or interventions that

promote more equitable literacy learning opportunities for male and female high school students.

Esteban, L., Ramuzat, L., Richard, É., Caseau, A.-C., & Mofakhami, M. (2025). **Enjeux et limites des mesures de pauvreté et précarité des étudiant·es dans la statistique publique**. *Revue française des affaires sociales*, *252*(2), 79-89. https://doi.org/10.3917/rfas.252.0079

França, T., Nada, C., & Lyrio, B. (2025). **Forcibly Displaced to an Offbeat Destination: Syrian International Students' Experiences in Portugal**. *European Journal of Education*, *60*(3), e70218. https://doi.org/10.1111/ejed.70218
The diversification of international student mobility includes individuals fleeing conflict, persecution, and climate-related disasters. Within these complex dynamics, traditionally offbeat destinations—such as Turkey and Portugal—have emerged as strategic options for forcibly displaced students. Drawing on semi-structured interviews conducted with Syrian international students enrolled in Portuguese higher education (HE), we first examine how these students perceive Portugal as a viable alternative for pursuing HE while escaping the conflict. Second, we analyse their everyday academic and social experiences, analysing how these are embedded in broader 'survival strategies' shaped by displacement. Our findings reveal a paradox within the Portuguese international education framework. Although the country presents itself as an avant-garde actor in facilitating forcibly displaced students' access to HE through targeted policies and partnerships, HE institutions lack adequate mechanisms to support their long-term academic and social integration. This disconnect undermines Portugal's potential as a truly inclusive host, leaving the country positioned as merely a survival-strategy destination. We argue that despite the official support and assistance from the government, the burden of integration falls disproportionately on the students themselves, whose educational and social success depends mainly on their agency.

Gacumo, R. J., Campbell, J. A., Løkken, I. M., & Kucirkova, N. I. (2025). **The role of gender in multisensory reading: Children's engagement with olfaction-enhanced digital books**. *International Journal of Educational Research*, *133*, 102658. https://doi.org/10.1016/j.ijer.2025.102658
The study explores the effect of olfactory enhancements on children's engagement with digital books and examines potential gender differences in their responses. Grounded in multisensory learning and affordances, the study hypothesised that olfactory cues would enhance children's engagement during shared reading. The sample consisted of 65 Norwegian-speaking children aged 4–5 from five different early childhood education and care centres (ECEC), who experienced both olfaction-enhanced and standard digital books in a within-subjects design. Results revealed significantly higher engagement across persistence, enthusiasm, compliance, overall engagement, and diverse facial responses when children interacted with the olfaction-enhanced book. No gender differences in engagement were observed, which suggests that multisensory design may offer inclusive opportunities for engaging young readers. This study contributes to emerging discussions on how sensory-rich features in digital texts might support early literacy experiences and enhance children's enjoyment of reading. Implications for educational practice and policy include the recommendation for thoughtful integration of diverse, multimodal texts into early childhood education to foster inclusive and meaningful engagement with reading.

Gao, W., Cao, Y., Hao, S., Hou, Y., Yu, A., & Meng, L. (2025). **Influential Factors Behind the Declining Helicopter Parenting in Chinese Emerging Adults' First-Year University Life**. *Journal of Youth and Adolescence*, *54*(8), 1944-1958. https://doi.org/10.1007/s10964-025-02171-2
Extensive research has demonstrated the detrimental effects of helicopter parenting on the adjustment of emerging adults. However, few studies have investigated the changing trend of this parenting style and the parental and emerging adult factors that influence the trend. This study tracked 455 first-year university students (78.2% female; Mage = 18.73, SDage = 1.19) over three measurement points: 2, 4, and 14 months after enrollment. Through a latent growth model, the study revealed a significant downward trend in helicopter parenting behaviors among Chinese parents during the first year of their emerging-adult children's college life. Both parental failure mindsets and the autonomy and separation anxiety of emerging adults influenced the initial level of the declining trend in helicopter parenting. In contrast, only behavioral engagement of emerging adults in school activities is the key factor leading parents to reduce their overparenting behaviors. This study tracks the dynamics of helicopter parenting and identifies parental and emerging adult factors that shape its trajectory. The findings provide insights into reducing helicopter parenting practices and supporting emerging adults' adjustment during critical transitions.

Garipağaoğlu, B. Ç. (2025). **Achieving Organisational Agility in K-12 Schools Through School Mindfulness: The Role of School Social Capital as a Mediator**. *European Journal of Education*, *60*(3), e70170. https://doi.org/10.1111/ejed.70170
Agility matters in today's highly disruptive, and technology driven business landscape. The purpose of this research is to highlight the mediating role of school social capital between school mindfulness and organisational agility in K-12 schools in Turkey. The study employs the design of cross-sectional correlational research. The data was collected from 726 teachers and analysed by Structural Equation Modelling (SEM) and Process Macro. The research has found out that 'school social capital' has a significant mediating effect on the relationship between 'school mindfulness' and 'organisational agility'. Research findings indicate that high levels of organisational mindfulness lead to enhanced social capital, which, in turn, fosters greater organisational agility. Our research shows that building a culture of mindfulness and fostering strong social capital are key strategies for strategic agility. Therefore, we recommend school principals to mindfully and continually invest in their school social capital to improve their organisational agility for the accomplishment of their school goals. Moreover, the study recommends the prompt implementation of school mindfulness programmes to pave the way for school agility. Future research may adopt longitudinal or experimental research methods to further verify the results of this study or suggest other possible mediators or moderators to better explain the antecedents of organisational agility.

Garritzmann, J. L., Häusermann, S., & Pinggera, M. (2025). **Under what conditions do citizens support future-oriented welfare reforms? Public opinion and second dimension welfare politics**. *European Sociological Review*, *41*(3), 443-456. https://doi.org/10.1093/esr/jcae042
Important reforms are necessary to adjust today's welfare states to the challenges of post-industrial knowledge economies. Public opinion, however, is often sceptical towards large-scale reforms, especially when the benefits will accrue only in the future. We analyse the conditions that affect citizens' support for such reforms on the basis of original

survey experiments from two novel public opinion surveys in nine countries. We test the role of 'supply-side factors', referring to characteristics of the reform design itself (its policy field, distributive reform effect, time horizon, and costs) and 'demand-side factors', that is, respondents' characteristics and ideological orientations. We argue and demonstrate that among these 'demand-side factors', positions on the socio-cultural ideological dimension between universalism and particularism are key to explaining support for future-oriented social investment reforms. We thereby provide robust new evidence highlighting the role of 'second dimension politics' for welfare state reform.

Geenen, F., Saelens, L., Van Hiel, A., Van de Putte, B., Valcke, B., & Stevens, P. A. J. (2025). **Unravelling classroom justice perceptions among Belgian-Moroccan students: a qualitative content analysis**. *Social Psychology of Education*, *28*(1), 154. https://doi.org/10.1007/s11218-025-10098-6
The present study employs qualitative content analysis to investigate perceptions of classroom justice within the specific multicultural dynamics of teacher-student interactions. Semi-structured interviews were conducted with fourteen parent-youth pairs of Belgian-Moroccan background, revealing that the three key dimensions of the classroom justice model—distributive, procedural and interactional justice—offer a useful framework for understanding ethnic-cultural minority students' perceptions of injustice. Beyond these dimensions, the analysis uncovered overarching patterns, including the interpretation of perceived classroom injustice in collective terms and the importance of educational tracking in the development of these perceptions. By illuminating the role of justice in terms of underlying attributions, particularly discriminatory intent, the present study extends the classroom justice model and provides valuable insights into how justice perceptions contribute to ethnic-cultural minority students' vulnerable position within the educational system.

Getik, D., & Meier, A. N. (2025). **The Long-Run Effects of Peer Gender on Occupational Sorting and the Wage Gap**. *American Economic Journal: Economic Policy*, *17*(3), 35-70. https://doi.org/10.1257/pol.20230251
The Long-Run Effects of Peer Gender on Occupational Sorting and the Wage Gap by Demid Getik and Armando N. Meier. Published in volume 17, issue 3, pages 35-70 of American Economic Journal: Economic Policy, August 2025, Abstract: We study the impact of the early gender environment on inequality in th...

Giraud, F. (2025). **Ouvrir la boîte noire du capital culturel**. *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 77-105. https://doi.org/10.4000/14dkk
L'article de Frédérique Giraud analyse la transmission du capital culturel en famille à travers l'usage des jeux et livres Montessori, montrant que cette transmission ne s'opère ni automatiquement ni par simple héritage, mais exige un investissement parental continu et une action intentionnelle. Contrairement à la vision d'un « bain culturel » diffus, il s'agit d'un processus volontaire où des jeux, des objets et des apprentissages quotidiens deviennent supports de socialisation, bien au-delà des seules pratiques culturelles légitimes. L'enquête qualitative menée auprès de 65 familles révèle que les milieux populaires utilisent les jeux Montessori pour pallier des difficultés scolaires et favoriser l'autonomie, tandis que les familles moyennes et supérieures les mobilisent pour renforcer l'avance scolaire et développer des compétences distinctives, investissant leur espace domestique comme environnement d'apprentissage. L'article démontre ainsi que les différences de capital culturel ne tiennent pas seulement à la possession d'objets ou de

compétences, mais aussi aux manières de les utiliser et de les valoriser, remettant en cause l'idée d'une transmission passive et soulignant le rôle central du travail éducatif parental.

Giunti, S., Guariso, A., Mendola, M., & Solmone, I. (2025). ***Hacking Anti-Immigration Attitudes and Stereotypes: A Field Experiment in Italian High Schools*** (Working paper N° 17978). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp17978
In advanced economies, increasing population diversity often fuels hostile attitudes toward immigrants and political polarization. We study a short educational program for high-school students aimed at promoting cultural diversity and improving attitudes toward immigration through active learning. To identify the impact of the program, we designed a randomized controlled trial involving 4,500 students from 252 classes across 40 schools in northern Italy. The program led to more positive attitudes and behaviors toward immigrants, especially in more mixed classes. In terms of mechanisms, the intervention reduced students' misperception and changed their perceived norms toward immigration, while it had no impact on implicit bias, empathy, or social contacts. Our findings suggest that anti-immigrant attitudes are primarily driven by sociotropic concerns rather than individual intergroup experience, and that educational programs combining critical thinking with cross-group discussion can correct them.

Goudeau, S., & Darnon, C. (2025). ***Les inégalités scolaires : Comprendre et agir***. Louvain-la-Neuve: De Boeck Supérieur. https://www.deboecksuperieur.com/livre/9782807349735-les-inegalites-scolaires
Les clés pour comprendre et agir sur les inégalités scolairesDe nombreuses disparités existent entre les enfants dans une même classe. Elles se manifestent notamment dans la réussite scolaire, la maîtrise de l'expression orale, ou encore la rapidité et la facilité à accomplir les tâches scolaires. Ces écarts s'expliquent par de nombreux facteurs et résultent d'un long processus deconstruction quotidienne des inégalités au sein du système éducatif. Dès lors, comment l'enseignant peut-il intervenir pour les réduire ?Mêlant psychologie sociale et pédagogie, ce livre déconstruit les processus de fabrication des inégalités scolaires et donne des pistes concrètes pour limiter celles-ci. Il aborde :La question de l'origine des inégalités ;Le lien entre inégalités scolaires et sociales ;Le rôle des pratiques pédagogiques ;Les interactions entre élèves et entre parents et enseignants ;Les devoirs à la maison et le recours au numérique ;La notion de mérite scolaire.

Granjon, F., & Craheix-Gadhgadhi, I. (2025). **Insertion sociale et inclusion numérique des jeunes migrants**. *Agora débats/jeunesses*, *100*(2), 117-132. https://doi.org/10.3917/agora.100.0117
Cet article porte sur les difficultés d'insertion que rencontrent les jeunes migrants majeurs dans leurs relations à l'administration et à son instrumentation numérique. Il met en lumière que celles-ci relèvent de la non-maîtrise de certains savoir-faire pratiques qui tiennent autant à l'acquisition d'une « littératie numérique » et de compétences manipulatoires qu'à un rapport particulier aux institutions de la société d'accueil pouvant notamment conduire à des situations de non-recours. Il montre aussi l'importance de l'accompagnement (in)formel sur lequel les jeunes ressortissants étrangers prennent appui pour franchir certains des obstacles qui se présentent à eux, notamment dans leurs rapports à l'État et à ses administrations.

Grobon, S. (2025). **Précarité et habillement des étudiants recourant à des distributions alimentaires en région parisienne : une approche par l'image**. *Revue française des affaires sociales*, *252*(2), 285-307. https://doi.org/10.3917/rfas.252.0285

Grønhøj, E. O., Smith, E., & Bundsgaard, J. (2025). **Why do so few girls aspire for a technology career? The role of social influence, motivational factors, and stereotypes**. *Social Psychology of Education*, *28*(1), 152. https://doi.org/10.1007/s11218-025-10084-y
Despite living in a digital age, the lack of diversity among adolescents aspiring to pursue careers in technology is of ongoing concern, particularly due to the low numbers of girls. In this study, we investigate gender differences among 1,658 14/15-year-old Danish students' (49% girls) technology career aspirations and provide insights into factors that shape these aspirations. While previous research has mainly concentrated on science or STEM as a monolith, we specifically focus on technology, a case within the broader STEM field where the gender gap is especially pronounced. Scholars have argued that gender disparities in STEM aspirations can be attributed to stereotypes; this study offers nuanced perspectives on the types of stereotypes contributing to this gap. We applied a series of stepwise regression models and an Oaxaca-Blinder decomposition method to examine whether gender differences in students' perceptions of IT professionals, perceived parental and peer attitudes, technology-related activities in homes and families, and motivational factors mediate gender differences in students' aspirations for a technology career. The results from our analysis showed (1) substantial and significant gender differences favoring boys in students' technology aspirations, (2) that gender differences in students' interest, utility value, and perceived parental attitudes toward technology are the most influential variables in explaining the gender gap, and (3) that students' perceptions of IT professionals, technology-related activities in homes and families, competence beliefs, and perceived peer attitudes did not have a statistically significant influence on the gender gap in technology aspirations when considering students' perceived parental attitudes, interest, and utility value.

Guarrigue-Bidot, C., Trainoir, M., Lesage, M., & Perrin, M. (2025). **Habiter et travailler en Lieux de Vie et d'Accueil (LVA) : un engagement dans l'éducation populaire**. *Tréma*, (63). https://doi.org/10.4000/13r5e
Les lieux de vie et d'accueil (LVA) sont des petites structures qui, à l'orée du champ du social et du médicosocial, proposent aux personnes qui y sont accueillies un accompagnement continu et quotidien, fondé sur le « vivre avec ». Dans le cadre d'un projet de recherche sur les significations de ce « vivre avec », nous nous sommes questionnées sur la réinvention du travail par les permanent·e·s de ces lieux où se vivent et s'entremêlent les questions de quotidien et d'engagement. Dans cet article, il s'agit, à partir de l'expérience habitante, d'explorer les conceptions du travail, et le rapport aux normes et aux institutions qui régulent la prise en charge des jeunes sous main de justice ou confié·e·s au titre de la protection de l'enfance. Si le « vivre avec » est présenté comme la valeur et la modalité éducative fondatrice et rassembleuse des LVA, les pratiques minuscules du quotidien, les arts de la débrouille, la domestication des espaces et la constitution des chez-soi dévoilent le rapport aux contraintes administratives et professionnelles des permanent·e·s et révèlent leurs modes d'engagement et les épreuves auxquelles ils et elles font face.

Guichot-Reina, V., & De la Torre-Sierra, A. M. (2025). **Gender, work and national identity: The image of women in school textbooks during the Spanish democracy**. *International Journal of Educational Research*, *133*, 102683. https://doi.org/10.1016/j.ijer.2025.102683
This research explores the dynamic intersection of gender, work, and national identity in the schooling process of primary school students during Spanish democracy through the school discourse (textual and iconographic) found in textbooks. Twelve textbooks from the period of the so-called transition period and the current decade are analyzed in order to identify changes and continuities in discursive practices throughout democracy. The methodological approach employed is Critical Discourse Analysis (CDA), incorporating various models of analysis. The results reveal unequal modes of inclusion and exclusion of women and men in the discourses of nation-building. Different attributes representing models of femininity and masculinity are identified as symbols that articulate the nation. Additionally, the assignment of occupational roles based on gender in the school discourse is observed, with specific implications for the development of citizenship. Finally, the study discusses the potential implications of this gender discrimination on the construction of students' identities and underscores the urgency of adopting an egalitarian perspective in the selection of didactic resources.

Guillemot, F., Lacroix, F., & Nocus, I. (2025). **Amount of instructional and inclusion time for children with disabilities in France**. *International Journal of Inclusive Education*, *29*(10), 1781-1796. https://doi.org/10.1080/13603116.2024.2303137
The aim of this research is to study the actual situation of the inclusion of children with disabilities in France. The parents of 552 children with disabilities, aged between 3 and 18, were interviewed about the amount of instructional and inclusion time of their child. Inclusion time refers to instructional time spent with non-disabled peers. The parents also specified the nature and severity of their child's disability, the potential difficulties linked to the child's behaviour using the Strengths and Difficulties Questionnaire (SDQ), the child's academic level and various socio-demographic variables. The study shows that the amount of instructional time of children with a disability is significantly lower than that of non-disabled children. Children with an intellectual disability or with ASD (Autism Spectrum Disorder) have significantly less instructional time than children with a motor disability, dys-disorder or ADHD (Attention Deficit/Hyperactivity Disorder). An important number of hours of inclusion is associated with a high academic level, particularly in mathematics. The higher the total score of emotional difficulties is, the lesser the child is schooled and included; conversely, a high score of pro-social behaviour is associated with more hours of instruction, after controlling the other variables. Finally, the parents' socio-professional category has an impact on instructional time and even more so on inclusion time, in favour of children with an advantaged background.

Hanushek, E. A., Kang, L., Li, X., & Zhang, L. (2025). ***From Rural Schools to City Factories: Assessing the Quality of Chinese Rural Schools*** (Working paper N° 12017). Consulté à l'adresse CESifo website: https://EconPapers.repec.org/RePEc:ces:ceswps:_12017
The changing pattern of quality in China's rural schools across time and province is extracted from the differential labor market earnings of rural migrant workers. Variations in rates of return to years of schooling across migrant workers working in the same urban labor market but having different sites of basic education provide for direct estimation of provincial school quality. Corroborating this approach, these school quality estimates prove to be highly correlated with provincial cognitive skill test scores for the same demographic group. Returns to quality increase with economic development level of

destination cities. Importantly, quality appears higher and provincial variation appears lower for younger cohorts, indicating at least partial effectiveness of more recent policies aimed at improving rural school quality across provinces. Surprisingly, however, provincial variations in quality are uncorrelated with teacher-student ratio or per student spending.

Higgins, P. J., & Misawa, M. (2025). **A narrative inquiry on the experiences of refugee adult learners in community colleges in the southeastern region of the United States**. *International Journal of Qualitative Studies in Education*, *38*(7), 1030-1049. https://doi.org/10.1080/09518398.2025.2452630
In 2018, the U.S. Refugee Admissions Office reported that a total of 678,082 refugees were admitted into the country in the last 10 years and statistics show a steady increase of refugee admissions. The purpose of this narrative inquiry was to understand adult refugee students' experiences in higher education in the Southeastern U.S. The research questions that guide this study were: (1) What are the experiences of adult refugees in higher education in the United States? (2) In what ways do they access higher education? and (3) How do they navigate higher education in the U.S. context? By understanding the refugee experience, adult education practitioners and community members can better mediate the impact of marginalization of refugee adult learners.

Huang, B., Tani, M., Xu, L., & Zhu, Y. (2025). ***Does College Education Make Women Less Likely to Marry? Evidence from the Chinese Higher education Expansion*** (Working paper N° 17986). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp17986
We study the impact of higher education (HE) on marriage incidence in China using the 2017 China Household Finance Survey. Taking advantage of the dramatic HE expansion starting in 1999, we explore the effect of education on marriage outcomes by instrumenting years of schooling using the interaction of childhood urban hukou status and a set of time dummy and trend variables capturing the exposure to the expansion. Contrary to conventional wisdom, the 2SLS results suggest that increased education induced by the HE expansion leads to higher marriage rates. These positive effects tend to be larger for women living in coastal areas or larger cities. The estimates are robust to alternative specifications, age range, the age cut-offs for childhood hukou status and controls for birth cohort-city specific sex ratios. Our findings imply that the strong negative relationship observed between college education and marriage outcomes for women is likely driven by educational assortative mating due to persistent gender norms in favour of status hypergamy, which prevents the Chinese marriage market from adjusting to the reversed gender gap in HE post-expansion.

Huang, M., & Liu, X. (2025). **Pathways to equity: A mediation analysis of gender, SES, and mathematics achievement using PISA 2022 UK data**. *International Journal of Educational Research*, *133*, 102666. https://doi.org/10.1016/j.ijer.2025.102666
This study examines the relationship between gender, socioeconomic status, and mathematics achievement in mathematics education in the United Kingdom, focusing on the mediating role of mathematics teacher support, growth mindset, and mathematics anxiety. Based on the data from the PISA 2022 database for the UK, the analysis uses the mediation effect test method. The results show no significant gender differences in mathematics achievement, while socioeconomic status has a positive effect on mathematics achievement. Male students exhibited receiving significantly higher levels of teacher support and demonstrating stronger growth mindset, but

experiencing lower mathematics anxiety compared to female students. There is no correlation between socioeconomic status and mathematics teacher support, a positive correlation with growth mindset, and a negative correlation with mathematics anxiety. Research shows that teacher support and growth mindset positively affect mathematics achievement, while mathematics anxiety has negative effects. The study also finds that gender has a mediating influence on the path from gender to mathematics teacher support to growth mindset to mathematics anxiety and then to mathematics achievement. The study provides policy recommendations for improving the quality of mathematics education, especially for girls and students of low socioeconomic status, and emphasises the importance of enhancing teacher support, fostering a growth mindset, and reducing mathematics anxiety.

Hübner, V., & Pfost, M. (2025). **Leap, learn, earn: exploring academic risk taking and learning success across gender and socioeconomic groups**. *Higher Education*, *90*(1), 49-67. https://doi.org/10.1007/s10734-024-01307-w
The positive learning effects of academic risk taking (ART) in higher education has been discussed since the 1980s. However, this may not apply equally for all social groups. Men and women may differ in the way they use ART to construct their gender identity. Students with different socioeconomic status (SES) may differ in their ability to navigate academic risks due to differences in available cultural capital.

Imaginer un nouveau contrat de genre pour l'éducation. (s. d.). Consulté 3 septembre 2025, à l'adresse Fondation Jean-Jaurès website: https://www.jean-jaures.org/publication/vers-un-nouveau-contrat-de-genre-pour-leducation/
En Europe, des logiques illibérales sont à l'œuvre qui visent l'enseignement supérieur et, en particulier, les études de genre.

Jaramillo-Echeverri, J. (2025). ***Understanding the relationship between women's education and fertility decline: Evidence from Colombia*** [Working paper]. Consulté à l'adresse Red Investigadores de Economía website: https://EconPapers.repec.org/RePEc:rie:riecdt:116
Across the world educated women tend to have fewer children than their less-educated peers. This paper provides new stylised facts about the long-run relationship between women's education and fertility at both the national and individual levels. I focus on Colombia, a country that experienced both a rapid fertility decline and fast expansion of education in the mid-20th century and I use data from the censuses of 1973, 1985, 1993, 2005 and 2018. The findings caution that the relationship between fertility and women's education is not always monotonic and this relationship changes significantly depending on the aggregation of the data. At the individual level, the relationship between education and fertility holds strongly and education increases the probability of remaining childless, reduces the total number of children and the likelihood of having a birth at a younger and older age, suggesting a strong trade-off between education and fertility. Peer effects, such as the percentage of peers with secondary education, are ruled out, which suggests that the externalities of education had a moderate effect on uneducated women. On the other hand, at the national level, the fertility decline cannot be explained by education as fertility has fallen continuously in all educational groups since 1965.Across the world educated women tend to have fewer children than their less-educated peers. This paper provides new stylised facts about the long-run relationship between women's education and fertility at both the national and individual

levels. I focus on Colombia, a country that experienced both a rapid fertility decline and fast expansion of education in the mid-20th century and I use data from the censuses of 1973, 1985, 1993, 2005 and 2018. The findings caution that the relationship between fertility and women's education is not always monotonic and this relationship changes significantly depending on the aggregation of the data. At the individual level, the relationship between education and fertility holds strongly and education increases the probability of remaining childless, reduces the total number of children and the likelihood of having a birth at a younger and older age, suggesting a strong trade-off between education and fertility. Peer effects, such as the percentage of peers with secondary education, are ruled out, which suggests that the externalities of education had a moderate effect on uneducated women. On the other hand, at the national level, the fertility decline cannot be explained by education as fertility has fallen continuously in all educational groups since 1965.

Jeroense, T., Spierings, N., & Tolsma, J. (2025). **How the educational level of confidants impacts our political attitudes?** *European Sociological Review*, *41*(3), 426-442. https://doi.org/10.1093/esr/jcae041
The role of an individual's educational level in shaping their political attitudes is very well documented. Also, social networks formed by both our strong and weak ties are generally segregated by educational level. Dove-tailing these two observations raised the question of whether the educational level of one's confidants also independently impacts an individual's political attitudes; however, this question has gotten hardly any attention. Therefore, we theorize and study the role of education in the core discussion network, including the question under what conditions the influence of our confidant's education on our political attitudes is especially strong. Empirically, we use a random intercept cross-lagged panel model to disentangle selection effects from the influence effects of interest. We find a small but robust influence effect of confidants' educational attainment on political attitudes of ego. However, confidants' influence does not depend on the degree of dyadic political discussion, confidant newness, and dyadic similarity.

Jones, C. T., Collins, K., & Rice, C. (2025). **Relaxed pedagogy: teaching and learning beyond diversity agendas**. *International Journal of Qualitative Studies in Education*, *38*(7), 1080-1094. https://doi.org/10.1080/09518398.2025.2452633
In Canada, known in Anishinaabe as Turtle Island, diversity and inclusion initiatives in higher education increasingly recognize power relations surrounding disability/access as a core component of diversity agendas and the policies and pedagogies that seek to enact them. Drawing on a 240-participant Relaxed Performance (RP) research project delivered over eight months across three universities in Southern Ontario, we describe a new empirically- and collectively-generated approach to access-informed (post) critical pedagogy called Relaxed Pedagogy, or RelaxPed. Relaxed Pedagogy "relaxes" classrooms and benefits students and educators through taking a post-critical pedagogical approach that is context-specific, connected to lived experience, interested in reflexive community-building, and non-prescriptive in ways that orient toward affirming difference and advancing "crip horizons" of access rather than diversity agendas. This article considers the implications of creative, invitational RelaxPed within diversity agendas in arts education and beyond.

Jones, D. B., & Schmick, E. (2025). **Reconstruction-Era Education and Long-Run Black-White Inequality**. *American Economic Journal: Economic Policy*, *17*(3), 165-196. https://doi.org/10.1257/pol.20230125
The Reconstruction era of American history (c. 1866–1877) saw widespread efforts to educate recently freed people—efforts that were partially curtailed after Reconstruction. This paper examines the impact of childhood exposure to educational opportunity during Reconstruction on later-life outcomes for recently freed people. Using data on the number of teachers in Black schools and a linked census sample, we find that Black children exposed to greater educational opportunity during Reconstruction had improved occupational standing as adults. Their sons also experienced gains, suggesting that Reconstruction-era educational efforts, had they persisted, would have impacted Black-White gaps into the twentieth century. (JEL I21, I26, J13, J15, N31)

Juma-Elflow, K., & Osam, U. V. (2025). **Intersectional conflicts and strategic agency: Female English teachers in post-conflict Libya**. *International Journal of Educational Research*, *133*, 102756. https://doi.org/10.1016/j.ijer.2025.102756
This study examines how female English as a Foreign Language (EFL) teachers in post-conflict Libya construct and negotiate their professional identities amid intersecting pedagogical, institutional, and sociocultural challenges. Using a theoretical framework that integrates Gendered Professional Identity Theory, Social Identity Theory, and Intersectionality, the research employs Interpretative Phenomenological Analysis (IPA) of in-depth interviews with twelve female Libyan EFL teachers. The findings reveal the profound emotional and ideological labor demanded of these educators, leading to four novel conceptual insights: 'cultural boundary' work, where student resistance acts as socio-political identity assertion; 'intersectional emotional labor', highlighting the compounded emotional demands shaped by gender, surveillance, and conflict fragility; 'proclivitic conformity', reflecting strategic compliance for self-preservation; and 'gendered professional invisibility', where teachers minimize public visibility to conform to societal norms. These findings challenge dominant Western-centric views of teacher identity and emotional labor, emphasizing the need for culturally responsive educational policies and teacher development programs in fragile, conflict-affected contexts. This study contributes to scholarship on teacher identity, language education, and educational development in Libya.

Kisfalusi, D., Hermann, Z., & Keller, T. (2025). **Discrimination in track recommendation but not in grading: experimental evidence among primary school teachers in Hungary**. *European Sociological Review*, *41*(3), 411-425. https://doi.org/10.1093/esr/jcae044
This study examines discrimination in teacher assessments and track recommendations against Roma minority students in Hungary. We conducted a pre-registered randomized experiment among 413 primary school teachers. Participating teachers evaluated six mathematics or literacy and grammar tests with fictitious, randomized student names and recommended a high school track. Our results show mixed evidence for discrimination against Roma students: teachers do not discriminate in test evaluations but do so in high school track recommendations, though this latter effect is small. We find that contextual factors play a substantial role in discrimination in track recommendations: teachers who receive tests with fewer Roma than non-Roma names discriminate against Roma students, whereas teachers who receive tests with more Roma names do not. In the latter case, non-Roma students receive similarly low track recommendations as Roma

students in both experimental conditions. The results are consistent with stereotype-based theories of discrimination.

Košir, S., Aslan, M., & Lakshminarayanan, R. (2025). **Adolescent dropout and school attachment: The moderating effects of gender**. *International Journal of Educational Development*, *117*, 103356. https://doi.org/10.1016/j.ijedudev.2025.103356
A dynamic school environment is necessary to ensure positive learning outcomes and holistic development of adolescents. In Albania, despite considerable attempts to increase school participation and provide quality education, school dropout has escalated in recent years, largely impacting vulnerable groups linked to poverty and ethnic, cultural and social factors. Drawing on attachment theory and its implications for adolescent development, a quantitative analysis was conducted using surveys and Structural Equation Modelling (SEM) to assess the influence of gender as a moderator in the relationship between school attachment and dropout rates in Albania. The results indicate significant differences between boys and girls in overall school attachment scores and specific school attachment dimensions. The findings suggest that gender plays a crucial role in moderating school attachment, with implications for targeted interventions to enhance school connectedness and reduce dropout rates. The study underscores the importance of considering gender in educational strategies and policies to foster a supportive school environment accommodating both male and female students' unique needs. The authors suggest that future research could explore these dynamics to inform practices that promote educational retention and success for all students.

Kwon, S., & Kang, H. (2025). **Exploring the relationship between sustainability and human rights: ecological transition education and its relevance to students' human rights in South Korean education**. *Asia Pacific Education Review*, 26(3), 839-850. https://doi.org/10.1007/s12564-025-10070-1
This research explores the integrated dialectic between human rights education and education for sustainability in the context of global crises, including climate change and unexpected pandemics. The authors examine disparities between students' rights and citizenship education in South Korean educational policies, questioning their lack of alignment concerning sustainability. To address this issue, we adopted a document analysis of two key educational policies introduced by the Seoul Metropolitan Office of Education (SMOE), South Korea: the Development Plan for Ecological Transition Education (implemented since 2020) and the Master Plan for Students' Human Rights (implemented since 2018). These documents were analyzed through the lens of transformative education, specifically drawing on the Freirean ecopedagogy approach. Our analysis of the transformative educational dimensions embedded in these policies reveals a tendency to emphasize one aspect of citizenship for sustainability—either rights or responsibilities—rather than integrating both. Based on these findings, we argue that both policies should more explicitly address the interconnectedness between civic and moral responsibilities and individuals' inner cognition as moral and political agents. Ultimately, we propose that for a new paradigm of human-nature relations to influence existing discourses in South Korea, these two policies should not be treated separately. Instead, they should be integrated to cultivate moral and political agents based on cosmopolitan citizenship, centered on ecology and human rights, and emphasizing the reciprocal cycle of valuing both responsibility and rights.

Le, K. T., Nguyen, C., Tran, T. N., Le, K.-M. A., Le, T.-B., Cao, P., & Cao, C. (2025). **Beyond the gender gap: The role of cultural, socioeconomic, and familial factors in Vietnamese students' STEM major choices**. *International Journal of Educational Research*, *133*, 102696. https://doi.org/10.1016/j.ijer.2025.102696

This mixed-methods study explores gender disparities in STEM major choices among Vietnamese high school seniors (12th graders), with a focus on the cultural, socioeconomic, and familial factors associated with these patterns. Quantitative analysis of survey data from 3583 students revealed that female students were significantly less inclined to choose STEM disciplines compared to their male counterparts, even after accounting for academic performance. Qualitative interviews with 40 students offered deeper insights into how traditional gender norms and cultural expectations contribute to this disparity. When considering socioeconomic factors, surprisingly, both our quantitative and qualitative data indicated that students from rural, lower socioeconomic backgrounds were more likely to pursue STEM majors than their urban, higher socioeconomic peers. This intriguing finding contrasts with typical educational patterns reported in previous research, where urban, affluent students tend to dominate STEM fields. The disparity can be attributed to rural students' strategic view of STEM careers as pathways to high-income careers that support their families, coupled with their perception that STEM fields in Vietnam offer more merit-based opportunities, irrespective of socioeconomic background. In addition, we found that fathers' expectations of their children's educational level had a significant and positive effect on the likelihood of students choosing STEM majors, while mothers' expectations did not have the same effect. Our findings highlight the roles of gender, socioeconomic status, and parental expectation in shaping Vietnamese seniors' STEM major choices. The study offers recommendations for policymakers and educators to address the STEM gender gap in Vietnam and beyond.

Lemke, M., Young, M. D., Mackey, H., & Miles Nash, A. (2025). **Feminisms in education: struggles and solidarities in a time of regressive social change**. *International Journal of Qualitative Studies in Education*, *38*(8), 1095-1108. https://doi.org/10.1080/09518398.2025.2540930

This article serves as the introduction to the special issue, "Beyond Now: Feminist Politics, Policy, and Research Futures in Education." As co-editors, we came together as colleagues to examine how the field engages feminist thought and what this means for advancing critical inquiry, theorizing, and research praxis. We begin by situating our work within a period representing widespread cultural and political change, and in doing so, offer a chronicling of feminist situatedness to such historical moments—a looking back to reenvision research considerations for those who engage this work. After discussing the urgency of feminisms in education, we present an overview of nine articles by authors who advance a range of critical theoretical and methodological frameworks. We curated this special issue across diverse disciplinary, epistemic, generational, geographic, and professional backgrounds to contemplate necessary political, policy, and research futures beyond now—a horizon of possibility that resists the constraints of the present and insists on future-making grounded in abolitionist, decolonial, and feminist commitments.

Leopold, A., Schulz, K., Burkard, A., Köller, M. M., & Renger, D. (2025). **The lack of fit framework in school: girls' perceived misfit and its consequences in a male-stereotyped**

discipline. *Social Psychology of Education*, *28*(1), 138. https://doi.org/10.1007/s11218-025-10094-w
Due to the leaky pipeline, i.e., the continuous decline in the number of women along the academic career path, women are still underrepresented in many academic disciplines like STEM and philosophy. One theoretical model that explains this is the lack of fit framework (Heilman, Sex bias in work settings: The lack of fit model; Heilman & Caleo, Combatting gender discrimination: A lack of fit framework). According to this, women in male-stereotyped disciplines perceive a misfit to the person stereotypical for the discipline. This perceived misfit has been associated with a lower sense of belonging and thus less engagement, intention to persist, and probability of choosing a career in the discipline. So far, the Lack of Fit Model has been studied in work and university contexts but not in schools. In the present study, we applied the lack of fit framework to secondary school, focusing on high school students (N = 523) and their perception of philosophy (a highly male-stereotyped discipline). We showed that female high school students have a higher perceived self-philosopher misfit than male high school students. Using a structural equation model, we showed that this gender-discipline misfit correlates with less engagement and lower intention to persist and possibly career choice via a lower sense of belonging. The results extend previous findings on the lack of fit framework to the school context.

Lessky, F., & Binder, D. (2025). **Does Combining Work and Study 'Pay Off'? Investigating Intersectional Effects of Term-Time Employment, First-Generation Status and Gender on Graduate Outcomes**. *Higher Education Quarterly*, *79*(3), e70046. https://doi.org/10.1111/hequ.70046
Despite globally increasing numbers of university students participating in paid employment during their studies, there is limited evidence on whether working during the lecture period (i.e., term-time) is beneficial for graduate outcomes, especially from an intersectional perspective. Using Austrian national administrative data on all university graduates between 2009 and 2018 (N = 90,026), we examine how student employment is associated with graduate outcomes for university graduates taking intersectional effects of 'first-generation status' and 'gender' into account. Our results extend existing research by showing that First-Generation graduate men and women tend to benefit differently from engaging in term-time employment. This accentuates the need for further research in higher education studies investigating graduate outcomes by taking intersectionality into account. Based on the results of this study, we discuss implications for policy and practice of employability-related activities at higher education institutions.

Li, Y., & Rahman, M. N. B. A. (2025). **Parental Involvement in Digital Learning During Elementary School Education: A Systematic Literature Review**. *European Journal of Education*, *60*(3), e70186. https://doi.org/10.1111/ejed.70186
Parental involvement has been recognised as a key factor in influencing children's educational outcomes, especially in the context of digital learning in primary education. The objective of this research was to systematically review the research on parental involvement in digital learning scenarios in primary education to understand the definition of parental involvement, theoretical frameworks and research findings in this field of study. Following the PRISMA guidelines, 30 research articles published in peer-reviewed journals from January 2014 to April 2025 were identified and reviewed from multiple databases. Findings reveal definitional inconsistency, limited use of theoretical frameworks and four key research domains: expanded parental roles (organising,

monitoring, instructing), influencing factors (parent-related, child-related, external), growing focus on parents' emotional states and generally positive impacts on student outcomes. This review enhances comprehension of parental involvement in the digital learning context and offers insights for constructing a theoretical framework for parental involvement in this new context.

Liang, Y., & Ahn, B. (2025). **Unheard, overlooked, and ignored: The intersectional experiences of non-native english-speaking women in engineering doctoral programs**. *International Journal of Educational Research*, *133*, 102688. https://doi.org/10.1016/j.ijer.2025.102688
Creating a more equitable and inclusive graduate engineering education environment requires amplifying the voices of female non-native English-speaking (NNES) international doctoral students (IDSs), whose experiences often go unheard. Their small representation results in their barriers being overlooked, as broader discussions on "women in STEM" or "international doctoral students" fail to capture their unique experiences. Despite contributing diverse perspectives and expertise, these students face complex barriers deeply intertwined with their identities. Using an intersectionality framework, we examined how their identities, as women, NNES students, international students, and members of underrepresented racial or ethnic groups, intersect to shape their experiences in doctoral engineering programs. Through semi-structured interviews with eight NNES women IDSs at a Midwestern university, we found that some participants perceived their interactions with faculty and peers were shaped by their awareness of multifaceted identities. Further, some participants reflected on how their identities influence how peers perceive their abilities and commitment to doctoral studies. Some participants reported doubts about their competence, stereotypes, unequal treatment, and discrimination in engineering classrooms and labs. Beyond academic barriers, several participants described how broader societal constraints, such as financial instability, cultural and family expectations, and U.S. immigration policies, further complicate their experiences, forcing them to balance academic progress with personal responsibilities. This study sheds light on how students make meaning of and perceive their experiences, highlighting the urgent need for engineering educators and student affairs professionals to address the unique barriers NNES women IDSs face. By implementing support systems, graduate engineering programs can take meaningful steps toward fostering a more inclusive and supportive academic environment.

Liénard, G. (2025). **Handicap culturel ou inégalités culturelles et scolaires ?** *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 19-48. Consulté à l'adresse https://journals.openedition.org/rsa/6957
En lien avec la réédition de Capital culturel et inégalités sociales. Morales de classes et destinées sociales (Liénard/Servais, 2023), cet article présente, 50 ans plus tard, un regard distancié sur cet ouvrage. La première partie situe, fin des années 1960 et début des années 1970, le contexte des relations entre divers acteurs sociaux (politiques, psychopédagogiques et sociologiques) en ce qui concerne les causes des échecs et des redoublements scolaires dans l'enseignement maternel et primaire. Il existait, à l'époque en Belgique francophone, des débats à propos du handicap culturel, de la démocratisation scolaire et culturelle, de l'égalité des chances et des inégalités socio-culturelles. De ces débats est résulté une convergence plaidant en faveur de la reconnaissance des inégalités culturelles. Dans la seconde partie, on aborde trois contributions de cet ouvrage : le processus de recherche en binôme, l'utilité du

traitement graphique des données et grâce à ce traitement, la structuration des pratiques culturelles. Ensuite, sur base d'une critique constructive, deux questions sont discutées. Est-il pertinent d'analyser les moyens d'action de diverses classes sociales à partir du seul concept de dépossession ou de privation de capital culturel ? La situation et la position socio-économiques objectives sont-elles déterminantes de la position et des significations symboliques à partir desquelles les personnes ressentent et agissent ? En conclusion, on souligne que, malgré des réformes positives, en lien avec les positions culturelles, sociales, économiques et symboliques dans la structure de la société, les inégalités culturelles se maintiennent, en particulier dans les domaines de l'apprentissage de la lecture et de la compréhension des textes.

Livermore, T., & Major, M. (2025). **Understanding Low Levels of Participation and Diversity in Economics: A Survey of High School Students**. *Australian Economic Papers*, *64*(3), 368-379. https://doi.org/10.1111/1467-8454.12402
Using data from a novel survey of over 4800 students, we examine the low levels of participation and diversity in Economics at Australia's high schools. We find that student demand for Economics as a subject is strongly associated with socio-educational advantage and sex, even when accounting for sample selection in whether schools offer Economics. Students typically have positive perceptions of economics as a field; however, the perceptions of Economics as a subject tend to be negative. Males compared to females, and students from more socio-educationally advantaged schools compared to less socio-educationally advantaged schools have more favorable perceptions of Economics as a subject, which is reflected in a higher likelihood of them choosing to study Economics. Controlling for a greater perceived understanding of what the subject of Economics is about does reduce some of the sex and socio-educational differences in perceptions, but a gap remains.

Lu, C., Zhang, S., Yu, X., & Wang, Q. (2025). **Computational thinking of elementary school students in social support systems: exploring the influence effects of teachers, family, and peers**. *Education and Information Technologies*, *30*(12), 17531-17555. https://doi.org/10.1007/s10639-025-13475-y
This study aims to investigate the role of social support—specifically from family, teachers, and peers—in enhancing computational thinking (CT) abilities among elementary school students. Grounded in social support theory, the scales related to teacher, parental, and peer support were adapted from the PSIA test. After ensuring their reliability and validity, multiple regression analysis and Shapley value decomposition methods were employed to assess survey data from 3,018 elementary school students in grades 3 to 6 across three provinces in central China (Hunan, Hubei, and Henan). The findings reveal that all three types of social support positively influence student's CT proficiency, with teacher's emotional support having the most significant impact, particularly on creativity, problem-solving, and collaboration. Family support also enhances CT skills across these dimensions, while peer support primarily affects collaborative skills. Notably, teacher's emotional support interacts positively with both family and peer support, while cognitive support from teachers complements peer support independently of family involvement. This study provides a social support framework for educators and policymakers to foster student's computational thinking, suggesting that strengthening emotional and cognitive support from teachers, along with encouraging family and peer involvement, can significantly improve student's CT skills. Limitations and directions for future research

are discussed, with an emphasis on the need for longitudinal studies and exploration of diverse educational contexts.

Lundin, M. (2025). **Stories from rural schools: Signs of resilience**. *International Journal of Educational Research*, *133*, 102725. https://doi.org/10.1016/j.ijer.2025.102725
Research has shown how rural schools contribute to rural life and how rural communities provide support to their local schools. This knowledge is crucial to sustain good-quality rural education and facilitate informed decisions to develop rural schools on their own terms. A common starting point in the current research is these schools' risk of closure as well as other shortcomings, with economy being one of the most important. Broadening the outlook requires hearing various voices and considering other starting points. This project sets out to examine teachers' and students' understanding at their rural schools in Sweden by studying how their narratives shape rurality. Two rural schools were studied using an embedded single-case design to search for accounts of needs that were analyzed to identify corresponding educational approaches. The narratives suggest that rural schools describe an agile way of handling issues based on internal and external collaboration and that these measures seem to provide resilience for them.

Ma, L., & Xu, L. (2025). **Critical thinking dispositions and foreign language learning: A moderated mediation analysis of self-efficacy and gender**. *International Journal of Educational Research*, *133*, 102740. https://doi.org/10.1016/j.ijer.2025.102740
Previous studies have established an association between critical thinking (CT) dispositions and foreign language (FL) achievement. However, the indirect mechanisms underlying this relationship remain underexplored. Grounded in social cognitive theory, this study investigated the mediating role of self-efficacy in the link between CT dispositions and FL achievement, and further examined how gender moderates this indirect pathway using a moderated mediation approach. A cohort of 16,006 secondary school students from Beijing, China (grades 7 to 12), with an average age of 14.84 years (SD = 1.42), participated in the study. Data on CT dispositions, self-efficacy, FL achievement, and gender were collected through student self-reports. The mediation analysis indicated that self-efficacy partially mediated the association between CT dispositions and FL achievement. The moderated mediation analysis further demonstrated that the mediation effect was significantly stronger among male students. These findings provide significant insights into FL teaching and learning and contribute to a deeper understanding of social cognitive theory within the context of FL education.

Ma, Y., Donald, W. E., & Wang, Y. (2025). **STEM students' self-perceptions of graduate employability: a gender, region, and gender-regional analysis in China**. *Asia Pacific Education Review*, *26*(3), 635-653. https://doi.org/10.1007/s12564-024-10021-2
Drawing on the framework of social cognitive career theory (SCCT), this work aims to understand whether self-perceived employability (PE) beliefs of STEM undergraduates in China differ by gender, region (urban/rural, and geographical divide), and/or gender-regional intersectionality. 1713 STEM undergraduates from multiple universities in China completed a self-reported questionnaire. Our findings showed that (i) gender impacts perceived employability (PE) such that men report higher PE than women; (ii) region impacts PE in such a way that urban regions report higher PE levels than their peers in rural regions; and (iii) intersectionality affects PE in such a way that women from rural regions report the lowest PE, then men from rural regions, then women from urban regions, with PE being highest for men from urban regions. The findings apply across three

dimensions of PE: self-awareness (SPA), perceived program relevance (PPR), and career exploration and awareness (CEA). Theoretical contributions illuminate PE beliefs across gender, regional, and intersectional lines, pinpointing which PE belief dimensions need enhancement. Practical and policy implications suggest ways for individuals, higher education institutions, and society to address gender and regional inequalities, thereby bolstering STEM students' PE.

Malroux, I., Panico, L., & Kelly-Irving, M. (2024). **Inégalités de genre et de classe sociale dans le développement psychomoteur des enfants : une approche sociologique**. *Population*, *79*(4), 531-562. https://doi.org/10.3917/popu.2404.0531
Au cours de la petite enfance, les apprentissages corporels, langagiers et moteurs varient selon les caractéristiques sociales des enfants et de leurs familles. Cet article propose une description des inégalités dans les apprentissages en fonction du genre, de la classe sociale et à l'intersection de ces deux rapports sociaux. L'étude s'appuie sur une vaste enquête portant sur plus de 18 000 enfants nés en France hexagonale, la cohorte Elfe dont les données ont été recueillies auprès d'enfants à l'âge de 3 ans et demi ; elle mesure les compétences enfantines dans les domaines suivants : le langage, la motricité, l'autonomie corporelle, la sociabilité, la numération et l'écriture. Les résultats obtenus entrent en résonance avec la littérature relative à la différenciation des apprentissages les plus rentables scolairement, en soulignant notamment le gradient social du développement langagier. Ils mettent toutefois en lumière l'inversion de ce gradient social dans le domaine de l'autonomie corporelle.

Mangez, É., Draelants, H., & Liénard, G. (2025). **Capital culturel et inégalités sociales**. *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 1-18. https://doi.org/10.4000/14dkr
I. Introduction À l'heure du Publish or Perish, alors que certains réduisent la valeur des chercheurs au nombre d'articles publiés durant les cinq dernières années, la décision qui a été prise de rééditer l'ouvrage « Capital culturel et inégalités sociales. Morales et de classe et destinées sociales » publié par Georges Liénard et Émile Servais il y a une quarantaine d'années, est remarquable. La présente livraison de Recherches sociologiques et anthropologiques entend se saisir de cet évèn...

Marcenaro-Gutierrez, O. D., Prieto-Latorre, C., & Lopez-Agudo, L. A. (2025). **On the contribution of parental expectations to the academic progress of youngsters**. *International Journal of Educational Research*, *133*, 102746. https://doi.org/10.1016/j.ijer.2025.102746
This paper analyses whether parental expectations play a relevant role in determining students' progression from primary to secondary education in maths and reading. Taking advantage of longitudinal census data for the Spanish region of Andalusia, we propose alternative identification strategies to estimate the influence of expectations on students' academic success. We tackle the endogeneity problem of expectations by employing time fixed-effects and applying an instrumental variables procedure, which uses a proxy of students' ability. The results confirm that higher parental expectations positively associate with students' achievement. Expectations are found to be a more important predictor of children's performance in reading than in mathematics, while performance in mathematics depends to a larger extent on innate students' ability. Additionally, we have found that boys' academic performance is more sensitive to parental expectations, while parents have higher educational expectations for girls. This higher

parental exigency for girls in comparison to boys may be a sign of the permanence of gender roles in society.

Masterson, J., & Rodela, K. (2025). **Fostering spaces of healing and resistance: counternarratives of co-mentoring across gender and race as Latina educational scholars**. *International Journal of Qualitative Studies in Education*, *38*(8), 1109-1126. https://doi.org/10.1080/09518398.2025.2502068
The presence of women of color and Latinas in particular in tenure-line positions in higher education is scarce. Those who find themselves in such positions encounter the intersectionalities of racism and sexism, and increased labor loads compared to their white, male counterparts. In this article, two Latina women of color (one pre-tenure and one tenured) share critical testimonios that excavate the mental and emotional labor they perform as faculty. Informed by Critical Race Feminista Epistolary Praxis, the authors utilize letter-writing to their past selves as counternarrative testimonios to examine their journeys on tenure track. From these letters emerged key themes about Latina women of color's academic experiences, highlighting the complex binds women of color encounter balancing research, teaching, service, and equity-centered work. Their letters also offer as a counterpoint the co-creation of a separate space of healing, solidarity, and engaged co-mentorship.

McKay, C., & Kirk, T. N. (2025). **Exploring the experiences of urban high school students in Paralympic School Day**. *International Journal of Qualitative Studies in Education*, *38*(7), 1065-1079. https://doi.org/10.1080/09518398.2025.2452632
This study explored the experiences of urban high school students in the Paralympic School Day (PSD) program and their perceptions about disability. Fifteen students took part in focus group interviews and written reflections were collected. Three interrelated themes were constructed: (a) "the people who we usually think of having to help were actually helping us": flipping the script; (b) "an interesting way to put yourself in the shoes of others": developing empathetic intelligence, and (c) "it feels ugly to be in a wheelchair": spotlight on ableism. These findings provide support for the assertion that while PSD programs have a positive impact on participants' disability-related perceptions, ableist notions and terminology are still unmistakable in their accounts. Therefore, PSD may be a crucial part of disability education and awareness, as initial ableist posturing began to dissipate through meaningful contact and experiences with disabled people while participating in disability sport activities.

Mehmood, S., Naseer, S., & Chen, D. L. (2025). **Transmitting Rights: Effective Cooperation, Inter-gender Contact, and Student Achievement**. *American Economic Journal: Economic Policy*, *17*(3), 107-130. https://doi.org/10.1257/pol.20230620
Transmitting Rights: Effective Cooperation, Inter-gender Contact, and Student Achievement by Sultan Mehmood, Shaheen Naseer and Daniel L. Chen. Published in volume 17, issue 3, pages 107-30 of American Economic Journal: Economic Policy, August 2025, Abstract: We provide experimental evidence of teac...

Merle, P. (2024a). **Embourgeoisement des collèges privés et résultats PISA**. *La Pensée*, *419*(3), 103-117. https://doi.org/10.3917/lp.419.0103
L'objet de l'article est d'étudier la transformation du recrutement social des collèges privés sous contrat. Sur la période 2017-2022, l'embourgeoisement de ces collèges privés est sensible et concomitant d'une réduction de leur mixité sociale inter et intra-

établissements. L'embourgeoisement des collèges privés, observable depuis le début des années 2000, contribue à expliquer les performances scolaires moyennes des élèves français aux évaluations PISA et la forte inégalité de réussite selon l'origine sociale.

Merle, P. (2024b). **Social separatism in catholic schooling system Gentrification of private secondary schools, educational offerings and policy**. *Sociologie*, *15*(4), 381. https://doi.org/10.3917/socio.154.0381
The aim of this paper is to study the evolution of social recruitment in public and private (partially state-funded) high schools in France. Based on measures of social status, the analysis highlights the gentrification of private high schools, specifically across the period 2017-2022. The article also shows that over a longer period, from 2005 to 2022, the level of gentrification has been increasing, with some variation in the cadence of this transformation according to the education polices adopted by successive governments, specifically the job creation policy, more favourable to private education than public under the quinquenniums Sarkozy and Macron. Among the various possible explanations for the observed bourgeois specialization of private high schools, the structural transformation of their educational offering, based on an upmarket strategy, constitutes a central explanatory variable. However, the paper also seeks to highlight that this process of gentrification in private high schools is helped or hindered by education policy adopted by the government of the day.

Montolio, D., & Taberner, P. A. (2025). ***Crime at your doorstep: Gender-specific effects on university student performance*** (Working paper N° 2025/07). Consulté à l'adresse Institut d'Economia de Barcelona (IEB) website: https://EconPapers.repec.org/RePEc:ieb:wpaper:doc2025-07
Student performance at university significantly influences individual decisions and future opportunities, especially in labour markets. This paper analyses the impact of local crime on student performance during higher education, with a focus on potential gender differences. Following students over their bachelorâ€™s years, the identification strategy exploits granular local crime variation â€“ violent and non-violent crimes â€“ near studentsâ€™ residences before sitting a final exam. We consider both spatial and temporal patterns of crime exposure by estimating a panel data model with student, exam and district-month fixed-effects to provide causal estimates. Our findings suggest that violent crimes have a negative impact on student performance, while non-violent have no significant effect. Notably, the results are mainly driven by high-ability female students, with suggestive evidence that male students in the bottom or middle parts of the grade distribution are also affected.

Mundelsee, L., & Reschke, K. (2025). **Classroom interactions: The role of students' gender, classroom subject, and social relations for student hand raising, teacher calls, and student talk time**. *International Journal of Educational Research*, *133*, 102711. https://doi.org/10.1016/j.ijer.2025.102711
Numerous studies show gender differences between boys and girls in STEM subjects compared to language-related subjects. Boys are often more interested and have better grades in STEM subjects, while girls prefer language learning and get better grades in language-related subjects. Research has already identified a number of different reasons for this pattern, but so far little attention has been paid to oral participation as potential explanatory variable, although it is directly and indirectly associated with student achievement. By examining student hand raising, teacher calling behavior as

well as student talk time, the present study focuses on three specific aspects of oral participation, taking into account relationships between students, their peers, and teachers as potential moderating factors. Data from N = 204 students (54 % female, Mage = 12.29 ± 1.11 years) included self-reports and classroom observations of at least three German language arts and three math lesson. Results of multilevel analyses confirmed that girls had higher grades and interest in German, while boys showed greater interest in math. However, no significant gender differences were found in the observed oral participation variables in either subject. Peer relationships negatively affected boys' oral participation in German and positively in math, while teacher-student relationships promoted girls' oral participation in math. These findings suggest that subject interest does not directly translate into oral participation or explain gender differences in achievement. Instead, relationships with peers and teachers, but also stereotypes of students themselves appear to play a critical role in shaping in-class participation patterns.

Muñoz-García, A. L., Gómez-Guinart, K., & Rojas-Müller, F. (2025). **Fictional collective narratives to inquire-with-feminist-theory on gender issues**. *International Journal of Qualitative Studies in Education*, *38*(8), 1168-1185. https://doi.org/10.1080/09518398.2025.2502058
During the past years, feminist movements in Chile and Argentina have brought significant transformations in higher education, particularly within universities. The diverse ramifications of these changes are still under revision, but there is a substantial advance in new gender policies within higher education, including gender policies for research. Based on a study on gender and knowledge from a feminist perspective in Chile and Argentina (2021–2024), we created a fictional collective narrative as a neo-materialist and anticolonial feminist tool for qualitative inquiry. We share details about the political and onto-epistemological displacements of what it means to "dialogue with the data," moving away from the idea of "giving voice" and complexifying the entanglements of data-researchers-participants. This article diffracts the potentialities of using fictional collective narratives as an inquiry space productive to imagine hopeful futures for gender knowledge in-between its contemporary positionalities in academic spaces.

Nefzi, N., & Toumi, M. (2025). **Obtenir sa thèse ou sa carte de séjour. L'impact de la précarité administrative sur les doctorants étrangers**. *Revue française des affaires sociales*, *252*(2), 175-194. https://doi.org/10.3917/rfas.252.0175

Nolan, D., O'Donovan, M., & Lafferty, N. (2025). **Social identity approach to understanding teacher-leadership**. *International Journal of Educational Research*, *133*, 102730. https://doi.org/10.1016/j.ijer.2025.102730
Teacher-leadership has received significant consideration in recent years, being frequently acknowledged as inconsistently defined. Through the lens of social identity theory, the current study explores the concept of teacher-leadership identity from the perspective of teachers not holding formal leadership positions. The study adopts a qualitative approach involving semi-structured interviews with 14 practicing schoolteachers in Ireland, none of whom hold a formal leadership position. Results highlight the reasons why schoolteachers identify or disidentify as teacher-leaders, and the impact this can have on their engagement with leadership practices and behaviours. Formal leadership emerged as a specific barrier to informal leadership, confounded by perceptions of formal leadership cliques and exclusion of non-formal

leaders. A dark side of teacher-leadership also emerged with informal leaders experiencing a lack of recognition or appreciation for their efforts, negative treatment from formal leaders, and a lack of support from formal leaders, including the principal. The role of the principal in promoting or inhibiting teacher-leadership also emerged, highlighting the pivotal role they play in the promotion of teacher-leadership in schools. Suggestions for policy, practice, and research are presented.

Norambuena, Y. S., Riffo, B., Rivas, L., Mariángel, S., & Gutiérrez, F. (2025). **Lexical development and socioeconomic background in Spanish-speaking children**. *International Journal of Educational Research*, *133*, 102701. https://doi.org/10.1016/j.ijer.2025.102701
The importance of socioeconomic background on language abilities is well documented. Nevertheless, the impact of a disadvantaged socioeconomic background on specific lexical skills, as well as the dynamic nature of these effects across development in languages typologically distinct from English, remains poorly understood. This study aims to examine the impact of age and socioeconomic background on nine lexical subskills in a sample of 906 Spanish-speaking children between preschool and 4th grade. In this study, receptive and contextual vocabulary, lexical decision, inflectional and lexical morphology, grammatical categories, semantic categories, semantic typicality, and verbal analogies were measured. The sample of students was selected according to their age group (Group 1 = 48–86 months; Group 2 = 75–121 months; Group 3 = 98–155 months) and school MVI (Multidimensional Vulnerability Index). Their lexical performance was compared at global and specific levels using a Kruskal-Wallis ANOVA and pairwise comparison using Holm. Cluster K-means analysis was used to explore differences in overall lexical performance due to age within each age group. The results reveal significant differences in lexical performance among school MVI groups (low, middle, and high vulnerability). Across all age groups, children from high vulnerability schools exhibited lower performance in all lexical subskills compared to their counterparts from low vulnerability schools. Furthermore, these discrepancies in lexical performance between MVI groups became increasingly pronounced across age groups, with the most drastic differences observed in the oldest age group. The most pronounced disparities in lexical performance were observed in receptive vocabulary, lexical morphology, and verbal analogies in the older age group. These findings have important implications for policy and practice, as they indicate patterns of low lexical performance in the most vulnerable schools. The discrepancy between low and high-performing patterns also widens with age, underscoring the necessity for early intervention, especially in schools with the highest vulnerability indexes.

Noreen, S., & Iqbal, Z. (2025). **Effectiveness of the social practice approach: Enhancing the application of basic literacy in daily life among adult learners**. *International Review of Education*, *71*(4), 561-589. https://doi.org/10.1007/s11159-025-10129-6
Literacy is widely acknowledged as a necessary 21st-century skill, particularly for adult learners. However, continued low academic achievement among adult basic literacy learners remains a global concern. This study aimed to address the challenge of limited application of literacy in daily life among adult learners by examining the effectiveness of a social practice approach (SPA) in basic literacy programmes. Two adult literacy centres in a metropolitan city in Pakistan were selected for a four-month literacy intervention, with experimental and control groups (each with 35 female learners). The mixed-methods research design included a pre- and post-test worksheet based on social

context and everyday life tasks, followed by a literacy intervention for the experimental group and traditional instruction for the control group, and concluding with semi-structured interviews with 10 learners from the experimental group to gain deeper insights. Quantitative data were analysed using independent sample t-tests, while qualitative data underwent thematic analysis. Results indicated significant improvements in knowledge, comprehension and application among the experimental group compared to the control group. Learners in the experimental group attributed their enhanced academic achievement to everyday life-related, interactive, engaging literacy activities and consistent practice of learned skills both in the classroom and in daily life. Based on their findings, the authors recommend conducting a needs assessment to align literacy content with identified social needs; providing context-based training for teachers, especially in lesson planning; allocating adequate resources; providing multiple literacy skills under one roof; and implementing feedback mechanisms for continuous improvement in adult basic literacy programmes.

Nsibande, S., & Botha, L. (2025). **Enabling resilience and OVC inclusion through relational agency: a case of OVC inclusion/exclusion into education in Eswatini**. *International Journal of Inclusive Education*, *29*(10), 1749-1765. https://doi.org/10.1080/13603116.2023.2295912
This article looks into enabling the resilience and inclusion of orphaned and vulnerable children (OVC) into education through the social relational networks which they have with others in their environments. Situated within a qualitative approach, the research collected data on the experiences of OVC through semi-structured interviews, questionnaires and a message-in-a-bottle technique. It presents some of the findings on the significant hardships as well as supportive relationships experienced by OVC at the hands of their families, communities and schools. These experiences are framed within a discussion of various understandings of agency and resilience. Favouring a relational approach to agency and resilience, the analyses suggest that, while OVC endure grievous challenges which place them at risk of experiencing exclusion, through the relational networks they have with others, they are able to be resilient and experience inclusion in education and generally.

Observatoire des inégalités. (2025a, août 27). **Du lycée aux études supérieures : de moins en moins d'enfants d'ouvriers, de plus en plus d'enfants de cadres**. Consulté 29 août 2025, à l'adresse Observatoire des inégalités website: https://www.inegalites.fr/inegalites-sociales-lycee-enseignement-superieur
Au fil de la scolarité, la part des enfants d'ouvriers se réduit alors que celle des cadres supérieurs s'accroît. Il y a deux fois moins d'enfants d'ouvriers sur les bancs de l'université qu'au collège. Comment expliquer cette disparition ?

Observatoire des inégalités. (2025b, août 27). **Les inégalités sociales, de l'école primaire à la fin du collège**. Consulté 29 août 2025, à l'adresse Observatoire des inégalités website: https://www.inegalites.fr/inegalites-sociales-primaire-college
Dès le primaire, les enfants d'origine sociale défavorisée obtiennent en moyenne de moins bons résultats que les enfants de cadres. On retrouve ces écarts au collège et ils déterminent l'orientation de fin de troisième.

Ocasio-Stoutenburg, L., Nunez, C., Sudduth, C., Nevares, A., Cruz, N., Garilli, A., … Schladant, M. (2025). **'She became this liaison'. Perspectives of a preschool community**

on coaches as brokers of assistive technology access, communication, and support for teachers and caregivers of children with disablities. *International Journal of Inclusive Education*, *29*(11), 2064-2089. https://doi.org/10.1080/13603116.2024.2337058
While AT has been well-documented as a valuable support for disabled and nondisabled children across developmental domains and settings, several barriers to access and implementation persist. Studies have described heightened barriers for community-based preschools, whose access to AT professional development, AT resources, and practitioners with AT experience may be limited. Researchers in this qualitative inquiry engaged twenty-seven participants (teachers, teacher assistants, caregivers and administrators) to learn about their experiences of an AT intervention programme over a 2-year period. Using Constructivist Grounded Theory Methodology, we analysed data from focus groups and semi-structured interviews, generating five themes. Members of the school community valued the programme's AT coaches, whose presence, affective style and actions promoted their confidence using AT. While the COVID-19 pandemic impacted both programme delivery and participants' experiences, the programme and its coaches helped bolster technology and communication access in unanticipated ways. Insights from this inquiry emphasise the important, yet often understated role of building relationships with all participants when delivering community-based preschool interventions, invaluable in meeting the holistic needs of children, as well as the practitioners and families who support them. Notably, AT coaches were perceived as liaisons, building rapport, providing technical assistance, and sustaining connections within a school learning community.

Ólafsdóttir, L. B., Gibson, B. E., Hardonk, S. C., & Egilson, S. T. (2025). **'It is important to be involved': social participation of autistic children and adolescents in mainstream schools**. *International Journal of Inclusive Education*, *29*(11), 2034-2048. https://doi.org/10.1080/13603116.2024.2337055
Through the application of a Bourdieusian lens, this study aimed to contribute insight into social participation of autistic children and adolescents in mainstream schools in Iceland. The objectives were to (a) explore how autistic children and adolescents perceive their social participation in schools and (b) identify structures and processes that facilitate or hinder the children's and adolescents' participation and social inclusion. Thirteen autistic children and adolescents were interviewed about their participation within different subfields of social relations such as the classroom, cafeteria and playground. The initial inductive analyses drew on Charmaz's constructive grounded theory approach. Then Bourdieu's theory of practice was applied to critically explore identified categories. We describe four categories that reflected processes and structures influencing the participants' social participation in school: (1) defining and practicing friendships, (2) dealing with a non-accessible environment, (3) being bullied and (4) experiencing lack of social support. Our findings suggest that more focus needs to be directed to the structure and characteristics of different subfields and how they organise the social participation of autistic young people.

Oliphant & Ma. (2025). **Applying Behavioral Economics to Social Capital to Increase International Enrollment in U.S. Community Colleges**. *Community College Journal of Research and Practice*, *49*(9), 598-614. https://doi.org/10.1080/10668926.2024.2355878
At a time when international student enrollment has been declining at community colleges for more reasons than just the pandemic, this paper attempts to address a gap in the literature to assist community colleges with their enrollment by helping them recruit

international students. While there are many suggestions for improving international enrollment numbers, they are often financially costly. Given the budgets of community colleges and how international students choose their post-secondary institutions, community colleges are best able to raise international enrollment by concentrating on improving the campus experience for their current international students. To do so, this paper is the first to apply insights from behavioral economics to see how they might help increase the social capital of international students to boost international enrollment. Outside the classroom, international students may be helped by the college employing behavioral biases such as the availability bias and status quo bias and the heuristic known as the foot-in-the-door to raise their social capital with domestic students and using the information overload and choice overload to increase their social capital with academic counselors. Inside the classroom, faculty members can employ behavioral biases like the appeal to authority and the in-group bias to help international students increase their social capital with domestic students.

Onchwari, A. J., & Keengwe, G. (2025). **Parent Engagement With Their Children's Learning Activities at Home During COVID-19 Pandemic**. *European Journal of Education*, *60*(3), e70147. https://doi.org/10.1111/ejed.70147
This study examined parents' engagement in learning activities with their preschool-aged children and the frequency of that engagement during the COVID 19 pandemic. Participants in the study were from a midwestern state in the United States. Differences among parent engagement in learning activities with their children were found along a range of demographic and school program factors. Analysis revealed parents engaged with their children most frequently in activities that had structure and were skill involved, such as arts and crafts, playing video games, and completing science and math activities, though watching TV together was also a key activity. Significant differences among activity frequency and race/ethnicity and parent income level were revealed in the analysis. No significant differences were found among parents given their level of education, program type, location and delivery mode. Analysis of teachers' years of experience showed significant differences among parents' engagement in activities. Analysis revealed that parents of low income engaged significantly less with their children than their wealthier counterparts. Trial Registration: The study was not involving clinical trail.

Ortega Perals, P., Cruz Rambaud, S., & Sánchez García, J. (2025). **How macroeconomic factors and educational level impact on the quality of healthcare status: some dynamic panel data evidence from Europe**. *Quality & Quantity*, *59*(3), 2053-2067. https://doi.org/10.1007/s11135-024-02017-2
Healthcare systems have been thoroughly analyzed in recent years all over the world, with an increased interest in health status as an indicator of population well-being. However, the existing relationship between health status and the economic situation is still unknown, and for this reason, many researchers have started looking for factors to ensure a better health system. The aim of this paper is to measure the impact of the quality of care on the health status of European countries by considering macro-financial magnitudes and social determinants. To investigate this connection, the methodology used is a dynamic panel data analysis by employing the Arellano–Bond Generalized Method of Moments estimator. The data used in this study corresponds to twenty countries of the European Union, for the period 2011–2021. The results show that the number of specialists is the variable which mostly affects health status, these results being

robust to any specification or economic-social control. With regards to macro-financial magnitudes, healthcare expenditure significantly increases health status, indicating that increasing expenditure has a positive impact on the healthcare system of European countries. Education level also exerts a positive effect on health status which is indeed the most noticeable contribution of the paper. Finally, the results presented in this paper are of particular interest in designing public policies, therefore increasing the efficiency of European healthcare systems.

Oswald, F., Pereira-Jorge, I., Garr-Schultz, A., & Chaney, K. E. (2025). **"I know what's best for my child": A qualitative analysis of US cisgender-heterosexual and LGBTQ parents' perspectives on inclusive education policies**. *Analyses of Social Issues and Public Policy*, *25*(2), e70012. https://doi.org/10.1111/asap.70012
Diversity education in the K-12 years is a contentious issue in the contemporary US context. Given evidence that parental identity influences beliefs about and support for diversity education, we qualitatively explored cisgender-heterosexual and LGBTQ+ parents' (N = 609) beliefs about the appropriateness of inclusive educational policies in K-12 classrooms. We collected qualitative data on parental perceptions of inclusive signals in classrooms (e.g., displaying a rainbow flag) and on perceptions of inclusive curriculum (whether children should learn about diversity at school/from teachers or at home/from parents). Parents' responses reflected variability in support for inclusive signals. Cisgender-heterosexual parents were more likely to endorse that cues should not be allowed and were less likely to indicate holistic support of cues compared to LGBTQ+ parents. For inclusive curriculum, cisgender-heterosexual parents were more likely than LGBTQ+ parents to endorse that diversity information should be discussed only at home with parents. We contextualize parents' responses within contemporary political rhetoric (e.g., discussions of Parents' Bills of Rights) and highlight implications for educators and policymakers.

Park, H. Y., & Moon, H. (2025). **Parenting in Academia: Unequal Pathways to Collaboration for Doctoral Students in South Korea**. *Higher Education Quarterly*, *79*(3), e70041. https://doi.org/10.1111/hequ.70041
This study explores the challenges faced by parenting doctoral students, focusing on their research collaboration experiences, collaborative competency, and barriers to develop collaborative competency in comparison to their non-parenting counterparts. The research employs data collected through an online survey of doctoral students at a leading research university in South Korea in 2024. The results reveal that female parenting students report lower participation in international collaborations and face greater barriers in developing global competencies compared to male and non-parenting students. However, parenting students, particularly females, exhibit higher levels of self-perceived collaborative skills and attitudes. Notably, these differences are more pronounced in non-STEM fields, with no significant sex or parenting effects observed in STEM fields. The study highlights the need for higher education institutions to ensure that research collaboration opportunities are equally accessible to all students regardless of parenting status, sex, or discipline. The findings are timely given the global concern over declining fertility rates and their potential impact on the academia.

Patterson, J. T., & Matias, C. E. (2025). **Silenced no more: women of color confronting racial gaslighting in academia**. *International Journal of Qualitative Studies in Education*, *38*(8), 1226-1245. https://doi.org/10.1080/09518398.2025.2502661

This study examines the intricate dynamics of racial gaslighting faced by women of color in higher education, highlighting how this form of gendered whiteness intertwines with race, gender, and power to marginalize and undermine their lived experiences. Using Critical Whiteness and Black Feminist Thought frameworks, this paper highlights the mechanisms of racial gaslighting through the methods of denial, invalidation, and distortion of lived experiences, which undermine the credibility and agency of women of color. Through personal counterstories and thematic analysis, this study uncovers the intricate facets of racial gaslighting and its harmful impact on the academic and personal well-being of women of color. By integrating insights on racialized and gendered educational dynamics, this paper emphasizes how racial gaslighting promotes affective injustice and advocates for institutional reforms and cultural shifts to create more inclusive and equitable environments.

pédagogique, C. (2025, septembre 1). **Le hors-temps scolaire : terrain d'inégalité**. Consulté 1 septembre 2025, à l'adresse Le Café pédagogique website: https://www.cafepedagogique.net/2025/09/01/le-hors-temps-scolaire-terrain-dinegalite/
Alors que des millions d'élèves reprennent le chemin de l'école, la rentrée n'efface pas les inégalités sociales. 4,7 millions d'enfants ne sont pas partis en vacances en 2023. L'été, c'est

Permatasari, N., Suminar, D. R., & Hendriani, W. (2025). **Transforming minority students' adaptation: understanding minority students' transition to college in Eastern Indonesia**. *International Journal of Qualitative Studies in Education*, *38*(7), 1009-1029. https://doi.org/10.1080/09518398.2025.2452629
This study discusses the adaptation transformation of minority students, especially those from Eastern Indonesia, in transitioning to higher education in their first year of study. It involves 60 minority students from various faculties in eight focus group discussion groups and is followed up with in-depth interviews with three minority students. This study aims to gain in-depth insights into students' experiences during the adaptation process in the early years of college. The study's results highlight the challenges and strategies faced by minority students, identifying factors that influence their adjustment. The findings provide a better understanding of how minority students deal with challenges by enhancing adaptation and academic success in the college environment. This study can provide a foundation for educational policies that are more inclusive and focused on encouraging a successful transition for minority students in Eastern Indonesia.

Petersen, J., Bryant, M., Concha, N., Firman, N., Hawking, M. K. D., Jama, S., … Dezateux, C. (2025). **Impacts of discretionary universal free school meal schemes on primary school children's education attainment and school absence: A natural experiment study in England**. *International Journal of Educational Research*, *133*, 102713. https://doi.org/10.1016/j.ijer.2025.102713
Discretionary Universal Free School Meal (UFSM) schemes for 4-11-year-olds were implemented in four local authorities with high child poverty levels in London, UK. The schemes were initiated between 2009/10 and 2014/15. The first scheme was evaluated as part of a national 2-year pilot. The present study concerns the first six years of all four schemes. In addition, we report on the longer-term effects (7+ years) for two of the schemes while the others were interrupted by COVID-19. The intention-to-treat impacts on z-score standardised attainment scores (reading, mathematics) and school absence

in 10-11-year-olds were studied in a natural experiment design. We used a dynamic difference-in-differences approach with matched controls in sociodemographically similar neighbourhoods elsewhere in London. UFSM provision was on average not significantly associated with attainment nor absence during the initial six years of the schemes. However, scheme effects differed by local authority with the two longest running schemes showing positive results for reading and mathematics as secondary outcomes. Further studies are needed to better understand the mechanisms, how the schemes impact on the school environments, and how they may be improved.

Peterson, T. (2025). **Formal Education Levels and Environmental Interest**. *Social Science Quarterly*, *106*(4), e70059. https://doi.org/10.1111/ssqu.70059
Objective This study investigates the relationship between formal education levels and environmental interest among utility customers, aiming to contribute to the academic understanding of demographic and behavioral differences. Methods Data were collected from a 2022 survey of 1209 utility respondents. The analysis compared respondents with and without a bachelor's degree, examining differences in income, marital status, home tenure, fuel choices, and environmental interest based on survey responses. Results Respondents with a bachelor's degree reported higher incomes, were more likely to be married, older, and had lived longer in their homes compared to non-bachelor's degree holders, who were more often single. Males were more likely to have higher educational attainment. Lower education levels were associated with greater use of electric heating over natural gas. However, little evidence was found linking formal education level to differences in environmental interest or pro-environmental behaviors, including energy reduction importance, participation in renewable energy programs, appliance selection preferences, and reported changes in natural gas consumption. Conclusion While demographic and fuel-use differences were observed between education levels, environmental interest and behaviors did not vary significantly. Further research is recommended to explore factors influencing renewable energy program participation and fuel choices for heating, and to validate these findings, particularly regarding product selection and consumption behaviors.

Popović, D., Krpanec, E., Parmač Kovačić, M., Burić, I., & Šverko, I. (2025). **Unlocking academic potential: Role of individual agency in diverse social environments**. *International Journal of Educational Research*, *133*, 102677. https://doi.org/10.1016/j.ijer.2025.102677
Educational inequalities persist and are prevalent in the modern world. While disadvantaged students encounter many structural barriers, the latest research highlights that individual agency could be a pathway to reduce the social class education gap. To provide a more comprehensive understanding of the interplay between students' social origins and individual agency, this study tested four compelling hypotheses - independent, mediation, cumulative and compensatory effect hypotheses - on their role in shaping social class educational inequalities using multiple indicators of both constructs. The study draws on two-wave data from 1087 (51.4 % girls) middle school students attending 16 schools across Croatia. From the set of SES indicators, only parental education and occupational prestige were predictive of students' academic achievement. Furthermore, results highlight mostly independent effects of students' social origins and individual agency in determining their academic success. Additionally, educational aspirations served as a mediating factor, while both educational aspirations

and motivational autonomy played a compensatory role in determining students' academic success.

Putra, Z. H., Sumadinata, H., Witri, G., Barokah, R. G. S., Gunawan, Y., Dahnlisyah, & Mohd. Jamil, Mohd. R. (2025). **The effect of gender, high school major, admission process, and year of study towards pre-service elementary teachers' computational thinking skills**. *Education and Information Technologies*, *30*(11), 15871-15889. https://doi.org/10.1007/s10639-025-13429-4
Computational thinking, a critical cognitive process from computer science, has gained prominent role in various academic domains, particularly mathematics. It involves problem decomposition, pattern recognition, algorithmic thinking, and abstraction. While previous studies have extensively explored computational thinking at the primary and secondary education levels, there is a noticeable gap in studies focused on pre-service teachers. This study seeks to bridge that gap by analyzing the computational thinking skills of pre-service elementary teachers in Riau, Indonesia. The research employs a quantitative approach, utilizing non-parametric tests to examine the influence of different variables, including gender, high school major, admission process, and year of study. A sample of 244 pre-service elementary teachers from the Elementary Teacher Education at a Public University in Riau, Indonesia, participated in the study, with data collected through a validated test comprising 22 questions based on computational thinking frameworks. The findings reveal significant differences in computational thinking skills based on the admission process and high school major. However, no significant differences were evident concerning gender and academic cohorts. These results provide valuable insights into the program to support pre-service elementary teachers' computational thinking through curriculum development in this area.

Quintana, R., Park, S., & Kang, S. (2025). **Causal decomposition analysis in disparities research: investigating the effect of self-efficacy on the gender gap in STEM**. *Quality & Quantity*, *59*(4), 3327-3351. https://doi.org/10.1007/s11135-025-02110-0
The underrepresentation of women in science, technology, engineering and mathematics (STEM) fields has been a subject of extensive research and policy debate. However, there is limited clarity regarding the specific mechanisms that generate these disparities, and which interventions are most effective in reducing the gap. In this study, we use causal decomposition analysis to estimate how the gender gap in STEM participation would change if we were to intervene on women's self-efficacy beliefs in mathematics. Women tend to underestimate their abilities in math-related fields, which can affect their educational and career choices. The question we ask is to what extent the gender gap in individuals' enrollment in STEM majors and identification with mathematics would be reduced if self-efficacy in mathematics were set to be equal across gender categories. The results suggest that equalizing this target factor will reduce the observed disparities in math identity by 53%, and in the enrollment of STEM majors by 2.5%. The modest influence of self-efficacy on enrollment disparities suggests that it is not the predominant factor. We discuss the implications of our empirical findings, as well as how causal decomposition analysis can benefit social and behavioral disparities research.

Rodríguez-Izquierdo, R. M. (2025). **University Social Responsibility: Unravelling the Perceptions of External Stakeholders**. *Higher Education Quarterly*, *79*(3), e70035. https://doi.org/10.1111/hequ.70035

The paper examines how external stakeholders conceptualise university social responsibility (USR) and their perceptions about how universities implement USR in practice. A total of 18 external stakeholders from eight universities were interviewed. The results indicated that there was no shared and common conceptualization of USR and that USR was recurrently related to the areas of teaching, research, or community engagement, revealing an omission of management, governance, and campus life. This study contributes to the body of knowledge on USR by shedding light on the perspective of actors that are not sufficiently addressed in the literature, that is, those of external stakeholders. We argue for a revisited USR based on a reflective debate on the potential role of external stakeholders in helping higher education institutions address societal needs. The study informs practical applications that policymakers can use to advance their social impact and reduce the gap between USR policy and practice.

Roué, M. (2025). **Diversité des lieux d'apprentissage décolonisés chez les Premières Nations du Québec**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wf
Au Québec, les Inuit, tout comme les Eeyou/Indiens Cris, ont leur propre commission scolaire, leurs propres écoles et programmes. Si nombre de professeurs sont de jeunes allochtones sans expérience, une nouvelle génération d'autochtones commence aussi à enseigner. Les Anciens participent également à l'enseignement, emmenant leurs élèves hors de l'école, par exemple pour leur apprendre à poser des pièges. Mais le hiatus entre la jeune génération, sédentaire, plongée dans les médias modernes et n'ayant jamais vécu le semi-nomadisme de ses aînés rend souvent le lien et l'apprentissage difficiles. D'autres lieux de savoir et d'apprentissage existent, en particulier pour les jeunes « décrocheurs », avec des camps de chasse où un couple d'aînés accepte de recevoir l'un de ces jeunes pour lui enseigner par la pratique. C'est alors progressivement que le jeune reprend pied dans une autre réalité, acquiert de l'autonomie, et surtout répond aux questions qu'il se posait sur sa propre identité et son lien avec le territoire dans toute sa dimension spirituelle.

Rubio-Cabañez, M. (2025). **Stratifying cities: the effect of outdoor recreation areas on children's well-being**. *European Sociological Review*, *41*(3), 472-486. https://doi.org/10.1093/esr/jcae028
This study examines how the presence of outdoor recreation areas such as parks and playgrounds affects children's well-being and how this effect is moderated by families' socioeconomic status. Specifically, I aim to answer two research questions. First, does the presence of outdoor recreation areas in children's neighbourhoods affect their cognitive well-being? Second, is there a differential effect depending on children's socioeconomic status? The main part of the study uses data from the International Survey of Children's Well-Being. The results suggest that the presence of outdoor recreation areas in children's neighbourhoods has a positive effect on their well-being. In addition, the estimated effect of outdoor recreation areas is larger for children from families with low socioeconomic status. Finally, findings from the Growing Up in Ireland data set suggest that children's reduced mental problems are a plausible mechanism through which outdoor recreation areas affect children's well-being. These findings have meaningful policy implications. Providing better access to appropriate outdoor recreation areas appears to benefit disadvantaged children more and thus reduce inequality in children's well-being.

Salazar, C., Nader, C., Zuñiga, J. D. V., & Viruel, A. R. (2025). **Promoting Culturally Engaging Campus Environments for Undocumented Students: The Role of Institutional Agents**. *Innovative Higher Education*, *50*(4), 1247-1280. https://doi.org/10.1007/s10755-024-09775-9

Existing research clearly shows that the experiences of undocumented students are highly dependent on the campus environment and their interactions within the setting (Cisneros et al., 2022Journal of Diversity in Higher Education, 15(5), 607–616; Shelton, 2019Journal of Student Affairs Research and Practice, 56(1), 92–104). It is common for undocumented students to feel ostracized and experience a campus setting that is unwelcoming despite attending college in states that offer them access to in-state resident tuition (ISRT) rates and state financial aid (Negrón-Gonzales, 2017Journal of Hispanic Higher Education, 16(2), 105–122; Salazar et al., 2023Journal of Hispanic Higher Education, 22(2), 161–174). In this study, we used Museus' (2014) Culturally Engaging Campus Environments (CECE) model to examine institutional agents' role in promoting a culturally engaging campus environment for undocumented college students. We used a participatory action research approach and a multiple qualitative case study research design to analyze data from 35 undocumented students attending public universities in California and Texas. The data revealed incongruencies in how faculty affected participants' sense of inclusion via curricula and one-on-one interactions. Furthermore, findings showed how personnel working at undocumented student resource centers promoted equity through culturally responsive practices. Grounded in our findings, we discuss innovative implications for higher education research, policy, and practice, such as including immigration content in the classroom across majors to increase culturally relevant opportunities and facilitate positive student-faculty interactions for undocumented students.

Serré, M., Chiron, A., & Perreau, C. (2025). **Vulnérabilités résidentielles des étudiant·es logé·es au Crous : pour une reconnaissance du travail social des veilleur·euses de nuit, agent·es techniques, d'accueil et d'entretien**. *Revue française des affaires sociales*, *252*(2), 265-284. https://doi.org/10.3917/rfas.252.0265

Shao, Y., Briggs, C. M., & Willis, A. (2025). **Student age and racial disparities in teachers' discipline evaluations**. *Social Psychology of Education*, *28*(1), 148. https://doi.org/10.1007/s11218-025-10112-x

Racial disparities in school discipline have been previously identified, with studies like Okonofua and Elberhardt (2015) using scenarios with minor infractions indicating the role of teacher racial bias in these disparities. In this research, we sought to replicate and extend their study by adding the age of the student (child vs. teen) as an additional variable. Two studies recruited teachers to participate in this mixed-method research. The quantitative part was a mixed design with race of the student in the scenario as the between-subject variable and age as the within-subject variable. The qualitative part asked teachers to provide the possible causes of racial disparities in school discipline. We failed to replicate the previously observed racial effect, nor did we find an interaction between student age and race. Teachers were more inclined to attribute racial disparities in school discipline to teacher-related factors rather than to student-related factors. The most common factor nominated was implicit racial bias.

Song, Q., Liu, N., & Yang, J. (2025). **Removing institutional barriers or reframing inequality: effects of China's college entrance exam reform on inequality in internal migrant**

students' higher education attainment. *Higher Education*, *90*(1), 215-242. https://doi.org/10.1007/s10734-024-01318-7
With the backdrop of global migration trends over the past two decades, there has been a significant rise in the number of migrant students enrolled in school systems around the world. Ample research has shown that migrant students often confront systemic barriers and inequities in access to educational opportunities compared to native students at the higher education level. In response to these persistent disparities facing migrant student populations, governmental authorities in different national contexts have sought to enact targeted policies aimed at reducing gaps between migrant and native students and improving their educational outcomes in access to higher education. Despite growing interest in addressing migrant student challenges through targeted policies, few studies have evaluated the causal impacts of these interventions and assessed their effectiveness in reducing educational inequalities. Using data from the 2018 China Migrants Dynamic Survey (CMDS, N = 4323), this study contributes to the literature by investigating the causal impact of the college entrance examination reform policy on migrant students' access to higher education in China. The findings of this study reveal that the policy significantly increases the probability of migrant students' access to higher education, but this improvement is driven primarily by those from higher family socioeconomic backgrounds and urban household registrations. The policy thus has a limited effect on reducing educational inequality. The findings of this study will inform policies in China and beyond for reducing inequalities and expanding migrant students' access to higher education within institutional constraints.

Stephens, C., & Morita-Mullaney, T. (2025). **Interpreting as educational policy: disentangling discourses of language access in schools**. *Language Policy*, *24*(3), 431-450. https://doi.org/10.1007/s10993-025-09728-8
The rights of language minoritized parents – up to a quarter of all parents in U.S. schools – are negotiated in interpreted conversations with educators. Therefore, language interpreting is school policy with consequential equity implications. In this critical discursive analysis, we examine interpreting and translation as educational policy. We apply Machin's (Critical Discourse Studies 10(4):347–355, 2013) Critical Discourse Studies framework of recontextualization to see how policy actors in schools combine, obscure, highlight, and delete elements of language access as they implement policy. This critical analysis of policy documents and qualitative interviews with school stakeholders takes place in Urban Mid-Atlantic and Urban Midwest school districts with growing populations of students designated English language learner (ELL). Our analysis addresses how school actors evaluate interpretation, as well as what they omit and substitute in their perspectives of interpreted communications with families; it also shows how meso-level administrators may be key to policy implementation change. We share both theoretical and practical implications towards greater justice in educational policy for communication with language minoritized families.

Straubhaar, R. (2025). **Complicating our image of the "good student:" Mexican students' use of navigational capital in a newcomer school**. *International Journal of Qualitative Studies in Education*, *38*(7), 941-955. https://doi.org/10.1080/09518398.2024.2416717
Newcomer schools inherently frame students in terms of what they lack—namely, fluency in the English language. The purpose of this study, drawing on a six-month ethnography of 14 tenth grade students from Mexico, is to counter this deficit framing by exploring, using the additive framework of community cultural wealth, what supports newcomer

students from Mexico have and use in the context of a newcomer school in Central Texas. I argue that participating students were assisted in their coursework by their previously developed navigational capital, which enabled them to position themselves as "good students." However, these students' efforts to embody the behaviors of "good students" occasionally led them to not ask clarifying questions, as they did not want to appear to have not paid attention. I end exploring the complications inherent in students using their community cultural wealth to navigate inequitable educational structures that reward docility over learning.

UNESCO International Centre for Technical and Vocational Education and Training. (2025). ***Institutional guide for gender transformation in TVET in South Sudan*** (p. 63). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394868

Verhoeven, M. (2025). **Le modèle de la reproduction sociale à l'épreuve des migrations**. *Recherches sociologiques et anthropologiques*, *56-1*(56-1), 155-179. Consulté à l'adresse https://journals.openedition.org/rsa/7257
Cet article interroge la pertinence du modèle bourdieusien de La Reproduction pour appréhender la spécificité des inégalités scolaires expérimentées par les enfants issus de l'immigration. À distance d'une thèse courante posant que les inégalités liées à l'origine migratoire et/ou ethnoculturelles seraient « solubles » dans les inégalités sociales, l'article revisite un corpus de travaux (quantitatifs et qualitatifs) disponibles en Belgique francophone, alimentant l'hypothèse d'une vulnérabilité spécifique à ce public. L'examen attentif des analyses statistiques menées sur les données PISA met d'abord en évidence un certain nombre d'effets systémiques (effet de parcours et de composition), qui renvoient aux mécanismes par lesquels les capitaux initiaux sont traités au sein des structures scolaires et convertis en hiérarchies scolaires. La seconde partie mobilise la littérature internationale et montre comment l'expérience migratoire (transnationale) s'accompagne de dynamiques de requalification et de création de capitaux, susceptibles d'être plus ou moins convertis et reconnus au sein du champ scolaire. La troisième partie mobilise une approche « intersectionnelle intégrée » (Bilge, 2010) pour dépasser une analyse en termes de combinaison de facteurs (classe, ethnicité, genre) et appréhender la manière dont ces variables s'imbriquent et s'encastrent au sein des structures éducatives méso et micro (marchés scolaires locaux et de micropolitique des établissements). Les propositions analytiques qui se dégagent de l'article entendent ainsi rester fidèles aux dimensions relationnelles et systémiques du modèle de la Reproduction, tout en l'élargissant aux dynamiques migratoires globales et intersectionnelles locales.

Villumsen, A. M., Engsig, T. T., & Jakobsen, I. S. (2025). **Pathways to belonging in the transition to school: the perspectives of children**. *International Journal of Inclusive Education*, *29*(10), 1619-1636. https://doi.org/10.1080/13603116.2023.2283525
This article presents the perspectives of children on the topic of belonging in school in connection with the transition to school. The study is based primarily on pictures drawn by children who have just entered the school system. We asked children to draw pictures of what makes school a place where a new pupil feel they belong – especially if they are new and struggling a little. Our specific focus is on belonging as a significant resiliency factor. The study was undertaken in Denmark and based on 32 drawings and eight observational video recordings. We applied a qualitative content analysis. Using the process of drawing is a meaningful methodical approach when children are asked what

it takes to feel they belong in school. The results and analysis of the drawings show that the focus of the children is child communities, friendships with other children and play – and they link this to spaces and places. Two things are absent from this focus: the school and adults. Two of the striking elements when asking children about this matter is that they display a great readiness for participation as well as inclusion of newcomers in their child communities.

Volodina, A., & Olczyk, M. (2025). **Socioeconomic Status and Well-being in Elementary School: An Evaluation of Different Indicators of Socioeconomic Status**. *Child Indicators Research*, *18*(4), 1495-1525. https://doi.org/10.1007/s12187-025-10258-2
Although socioeconomic status (SES) is related to students' well-being, many studies consider only a single SES indicator and one dimension of well-being, providing an incomplete picture. The present study examined SES-related differences among a large sample of elementary school students in Germany. We employed multiple SES indicators, considered both cognitive and psychological dimensions of well-being, and explored potential underlying mechanisms. Our findings highlight that the relations between SES and well-being depend on the specific SES indicator and the well-being dimension under study: Family income was linked to both cognitive and psychological dimensions of well-being, but only when considered alone. In contrast, parental education remained relevant for cognitive dimension of well-being even when several SES indicators were considered. Parents' occupation showed an association with one facet of cognitive dimension of well-being—school satisfaction—when analyzed alone. Regarding underlying mechanisms, several factors, such as parent-child communication, mediated the relations between SES indicators and both school satisfaction (a facet of cognitive dimension of well-being) and psychological dimension of well-being. However, no mediating effects were found for life satisfaction, the second facet of cognitive dimension of well-being under study. Future studies should consider that associations may vary depending on the chosen SES indicator and the well-being dimension of interest. In this context, further research on underlying mechanisms is needed to provide a more comprehensive understanding of social differences in childhood well-being.

Vries, D., & Sander. (2025). ***Measuring Family (Dis)Advantage: Lessons from Detailed Parental Information*** (Working paper N° 25-010/V). Consulté à l'adresse Tinbergen Institute website: https://EconPapers.repec.org/RePEc:tin:wpaper:20250010
This paper provides new insights on the importance of family background by linking 1.7 million Dutch childrenâ€™s incomes to an exceptionally rich set of family characteristics â€" including income, wealth, education, occupation, crime, and health. Using a machine learning approach, I show that conventional analyses using parental income only considerably underestimate intergenerational dependence. This underestimation is concentrated at the extremes of the child income distribution, where families are often (dis)advantaged across multiple dimensions. Gender differences in intergenerational dependence are minimal, despite allowing for complex gender-specific patterns. A comparison with adoptees highlights the role of pre-birth factors in driving intergenerational transmission.

Wagener, M., Bonnetier, C., & Degavre, F. (2025). **Trajectoires d'usage dans l'accueil temps libre chez les enfants de 3 à 12 ans en Belgique francophone**. *Recherches sociologiques et anthropologiques*, *56*(1), 107-132. Consulté à l'adresse https://journals.openedition.org/rsa/7111

L'importante diversité du paysage de l'accueil du temps libre (ATL) en Belgique francophone interroge quant à son accessibilité. Cet article analyse l'usage par les familles des activités de l'ATL subventionnées par l'Office de la Naissance et de l'Enfance à partir d'une conception multi-dimensionnelle de l'accessibilité et des travaux de l'ODENORE sur le non-recours. Les entretiens menés avec des professionnel·le·s et des parents révèlent des trajectoires d'usage qui dévoilent à la fois le caractère dynamique, relationnel du non-recours et un rapport aux institutions du temps libre intimement liés à l'éthos de classe des familles. La typologie ainsi développée est mise en perspective avec la recherche de Liénard et Servais.

Wagnon, S. (2025, août 26). **Le cartable, miroir de l'histoire scolaire et de ses contradictions**. https://doi.org/10.64628/AAK.gkcg7r6a6
De quelle manière le cartable, en tant qu'objet matériel et symbole pédagogique, reflète-t-il les transformations de l'école et les enjeux actuels de l'éducation ?

Walker, T., Burbidge, E., Arden-Close, E., & Panourgia, C. (2025). **Knowing me, knowing you: how school educators cope with the challenges of inclusion in deprived and non-deprived areas**. *International Journal of Inclusive Education*, *29*(11), 1859-1874. https://doi.org/10.1080/13603116.2024.2309870
Inclusive classrooms have become a focus in mainstream education in recent years. However, challenges for educators are often overlooked. This study utilised an exploratory, qualitative research approach following Strauss and Corbin's variant of Grounded Theory [Corbin, J., and A. Strauss. 2015. Basics of Qualitative Research. Sage] to investigate this; semi-structured interview data was collected from 19 educational professionals, utilising theoretical sampling techniques. Participants were working in deprived and non-deprived areas and were interviewed about their experiences of facilitating inclusion. Data was analysed using Grounded Theory; 'Knowing': yourself and your students emerged as the core category, with main categories of attitudes, sacrifices, student empowerment, meeting needs and barriers. Boundaries around time and emotional investment were paramount, as was available non-judgemental support. Student empowerment alleviated pressure on educators. Deprivation exacerbated challenges such as workload, student emotional and social needs, and emotional toll on educators.

Wang, F., Zeng, L. M., & King, R. B. (2025). **Socioeconomic gaps in socio-emotional skills across cultures: The role of school-based interpersonal relationships**. *Social Psychology of Education*, *28*(1), 146. https://doi.org/10.1007/s11218-025-10100-1
Socioeconomic gaps in academic achievement have been widely documented. However, whether and to what extent these socioeconomic gaps extend to the domain of socio-emotional skills is still relatively underexplored. Furthermore, limited research has examined the potential mechanisms that might help explain this relationship. To address these gaps, this study investigated socioeconomic gaps in socio-emotional skills and whether school-based interpersonal relationships may help explain their association. The participants were 31,187 10-year-old and 29,798 15-year-old students from ten cities across nine countries. The Big Five framework, which organizes skills into five broad domains and more specific facets was used to classify socio-emotional skills. The results of multilevel structural equation modeling indicated that socioeconomic gaps were present in eight out of the 15 socio-emotional skills more specifically, we found socioeconomic gaps in persistence, emotional control, empathy, trust, tolerance,

creativity, sociability, and assertiveness. However, we did not find gaps in self-control, responsibility, stress resistance, optimism, cooperation, curiosity, and energy. At a broader level, there seem to be more differences in the domains of collaboration and social engagement compared to emotion regulation and task performance. Empathy, trust, sociability, and assertiveness showed the strongest disparities among students from different economic strata. School-based interpersonal relationships partly explained these gaps. Students from more advantaged families experienced more positive school-based interpersonal relationships, which in turn, facilitated higher socio-emotional skills. The theoretical and practical implications are discussed.

Wang, T., & Jin, T. (2025). **Parental gender role attitudes and children's college major choices in STEM**. *Higher Education*, *90*(1), 109-129. https://doi.org/10.1007/s10734-024-01313-y
Despite notable progress in narrowing the global gender gap in education, women's participation in science, technology, engineering, and mathematics (STEM) fields remains disproportionately low. This study investigates the substantial impact of parental, particularly maternal, gender role attitudes on their children's major choices in China. To address endogeneity concerns, this research adopts a culture-based instrumental variable approach using regional differences in exposure to Confucian culture based on parental birthplaces as instruments. The results show that mothers who hold traditional gender role attitudes significantly discourage their daughters from pursuing STEM majors, with this discouraging effect being particularly pronounced in urban areas and among vocational college students. Further analysis on the mechanisms indicates that traditional maternal gender role attitudes negatively affect daughters' mathematical performance, self-esteem, and risk-taking, thereby limiting their inclination toward STEM fields. These findings highlight the imperative for policy interventions aimed at challenging and transforming parental stereotypes, which may serve as a crucial mechanism for reducing gender segregation in STEM education.

Wiseman, A. M., Cryer-Coupet, Q. R., & Atkinson, A. A. (2025). **Examining the potential of family literacy programs through the narratives of fathers in recovery**. *International Journal of Qualitative Studies in Education*, *38*(7), 972-989. https://doi.org/10.1080/09518398.2024.2425279
This paper is based on a trauma-informed family literacy program implemented in a residential treatment facility for fathers with substance-use disorders, with many of their population experiencing homelessness. Informed by a critical approach to family literacy that recognizes the social, cultural, and historical perspectives of families' experiences, we believe that it is important to consider ways that family literacy programs, particularly informed by critical perspectives, can create inclusive programs for those who are often marginalized. In this article, we used qualitative research, specifically narrative methods, to depict two fathers' experiences in the program. The fathers' narratives provide insights as to how a family literacy program can incorporate discussions around children's literature to create spaces where fathers can reflect on their relationships with their children and their experiences as parents.

Xu, W. (2025). **Micro language planning and governmentality in 'globalisation from below'**. *Language Policy*, *24*(3), 525-543. https://doi.org/10.1007/s10993-025-09735-9
Community-based grassroots governance has been framed and endorsed as an exemplary model of social governance in China. This article explores how this governing

philosophy is interpreted and appropriated within a migrant community in Yiwu, where language serves as a critical nexus between macro-level policy and micro language planning processes. Drawing on the Foucauldian-inspired notion of 'language governmentality', the study explores how Confucius Classroom and Chinese corner, with their distinctive pedagogy, have contributed to the development of 'technologies of self-governance', enabling migrants to lead in mediating community issues while allowing authorities to retreat into the distance. This article demonstrates the value and dynamics of multilingualism in addressing the social issues and social concerns emerging from 'globalisation from below'. The findings have important implications for language practice and management in ethnolinguistically diverse communities, highlighting the importance of understanding local linguistic realities and the role of multilingualism in fostering social integration and social governance.

Yaban, E. H., Heikamp, T., & Gaschler, R. (2025). **The gender-specific inter-role conflict and academic well-being in distance education: The mediating role of developmental regulation processes**. *International Journal of Educational Research*, *133*, 102690. https://doi.org/10.1016/j.ijer.2025.102690
Distance education offers learners the flexibility to choose when, where, and how they study, enabling them to pursue academic goals alongside work, family, and other responsibilities. Yet, this flexibility often requires greater self-regulation. Bidirectional inter-role conflicts—such as those between university and family or university and work—can undermine academic well-being in this context. Developmental regulation processes, including meta-regulation, goal engagement, and goal disengagement, provide a valuable framework for navigating these challenges. The current two-wave longitudinal study examined the mediating role of developmental regulation in the relationship between inter-role conflicts at the beginning of the semester (Time 1 [T1]) and academic well-being three months later (Time 2 [T2]) among 200 distance education students (76.5% women) aged 18-73 (M = 35.10; SD = 12.60). Concerning inter-role conflicts, a 2 (gender) × 4 (resource conflicts) repeated-measures ANCOVA revealed a significant interaction. Women reported more university-family conflict than the other conflict types (i.e., family-university, work-university, and university-work conflict), while men reported more work-university conflict. Across genders, university-work conflict was perceived as the least intense. Structural equation modeling (SEM) revealed that inter-role conflicts at T1 were negatively related to academic well-being at T2, whereas developmental regulation at T1 was positively associated with later academic well-being. On the one hand, the results highlight gender differences in how students experience inter-role conflict. On the other hand, developmental regulation partially mediated the relation between resource conflicts and academic well-being, emphasizing its role in supporting distance education students navigating competing demands and maintaining academic well-being, regardless of gender.

Yilmaz, İ. H. (2025). **School Loneliness Among Syrian Refugee Children in Turkey: A Phenomenological Study**. *European Journal of Education*, *60*(3), e70198. https://doi.org/10.1111/ejed.70198
This phenomenological study investigated Syrian refugee children's experiences of loneliness in Turkish primary schools through Max van Manen's existential framework—lived space, body, time and others. Data were collected via semi-structured interviews with 14 children aged 9–12 and 6 weeks of classroom observation in a public school in Ankara. Thematic analysis, using Saldana's coding techniques, revealed that loneliness

was not merely emotional but experienced spatially through marginalisation, bodily via self-critique, temporally as disrupted continuity and relationally through limited peer and teacher connections. Language barriers, peer exclusion and lack of teacher support were key contributors to emotional isolation. The study calls for culturally responsive pedagogy, inclusive peer practices and affective support systems to foster belonging. Theoretically, it extends van Manen's existential lens into the domain of forced displacement, offering a novel interpretation of refugee childhood loneliness as a multidimensional, lived phenomenon. This approach makes an original contribution to both migration studies and existential phenomenology.

Zamberlan, A., Gioachin, F., & Barbieri, P. (2025). **Hiring intentions at the intersection of gender, parenthood, and social status. A factorial survey experiment in the UK labour market**. *European Sociological Review*, *41*(3), 395-410. https://doi.org/10.1093/esr/jcae043
Extant literature points to the gender, parenthood, and social status of job applicants as crucial factors influencing employers' hiring preferences and behaviours. However, little is known about whether and to what extent the intersection of these attributes leads to specific forms of hiring discrimination. This study aims to fill this research gap by examining whether labour market (dis)advantages related to gender, parenthood, and social status occur in an additive or interactive relationship. We conducted a factorial survey experiment in which more than 2,500 UK-based individuals with recruiting experience rated the profiles of fictitious candidates for various job vacancies. We found significant and substantial discrimination against mothers, indicating the existence of a cumulative disadvantage between being a woman and having children, while high-status candidates were more favourably positioned, albeit with noteworthy differences depending on how social status was signalled. Most interestingly, the motherhood penalty was significantly reduced (up to almost half) for high-status candidates, suggesting a compensatory effect of signalling a high status. This novel evidence in the British context highlights the importance of examining the intersection of different dimensions of discrimination and inequality.

Zeng, T., & Gao, X. (Andy). (2025). **Motivations of Novice and Experienced Female Chinese Applied Linguistics Researchers to Participate in Peer Reviews**. *European Journal of Education*, *60*(3), e70154. https://doi.org/10.1111/ejed.70154
This article reports on an exploratory inquiry into the experiences of novice and experienced female Chinese applied linguistics researchers in their roles as peer reviewers. Using an ecological perspective to situate self-determination theory, we interpret participants' accounts of reviewing, gathered through semi-structured interviews, in this inquiry. The analysis suggests that the mesosystem (i.e., institution) has the most noticeable impact on female Chinese novice researchers' motivations to conduct reviews. Under the pressure of performance evaluations and promotion requirements, female Chinese novice researchers tend to be extrinsically motivated to write reviews for journals. In contrast, experienced researchers are likely to be intrinsically motivated as they associate doing reviews with a sense of autonomy, competence, and relatedness. The identified differences in the motivations of novice and experienced researchers for acting as reviewers suggest that the internalisation of review motivation—from extrinsic to intrinsic—could be an important part of the participants' professional growth from novice to experienced researchers. This points to opportunities for further study to compare researchers across different disciplines and cultural backgrounds,

assessing how their motivations to conduct reviews evolve through different stages of their careers.

Zhang, X., Zhou, M., & Kam, C. C. S. (2025). **How expressive communication enhances intercultural sensitivity in Chinese undergraduates: The mediating role of quality intergenerational communication and the moderating role of parental warmth**. *International Journal of Educational Research*, *133*, 102727. https://doi.org/10.1016/j.ijer.2025.102727
In an increasingly globalized world, fostering intercultural sensitivity is crucial for young adults navigating diverse environments. While research has traditionally emphasized individual traits and direct cultural exposure, the role of family and community dynamics remains underexplored, particularly in non-Western contexts. This study investigated how expressive communication style, quality intergenerational communication, and parental warmth shape intercultural sensitivity among 310 Chinese university students. Structural equation modeling revealed a direct positive link between expressive communication and intercultural sensitivity. Furthermore, quality intergenerational communication mediated this relationship, while parental warmth moderated its effects on students' attentiveness and engagement in intercultural interactions. These findings highlight the critical interplay of familial and societal factors in cultivating intercultural competence, suggesting that nurturing expressive communication within supportive family environments can effectively enhance students' intercultural sensitivity. By integrating family dynamics into established frameworks, this study expands theoretical understanding and offers practical strategies for cultivating intercultural competence through accessible practices.

Zhang, Ying, & Yang, S. (2025). **What Happens After Parental Neglect? Its Enduring Adverse Effect Through a Vicious Cycle Between Psychological Distress and Student Recognition**. *European Journal of Education*, *60*(3), e70182. https://doi.org/10.1111/ejed.70182
Abundant literature has documented the far-reaching adverse impacts of parental neglect on later intrapersonal and interpersonal outcomes. However, the existing research has been limited, neglecting to investigate its enduring effects on various development domains simultaneously. Based on the developmental cascade model, this study investigates the longitudinal associations among parental neglect, psychological distress, and student recognition using a three-wave longitudinal design with 310 secondary school students in Chengdu, China. The results revealed that parental neglect was consistently and significantly associated with subsequent changes in psychological distress and student recognition. Additionally, the findings suggested a vicious cycle between student recognition and psychological distress, initiated by parental neglect, with psychological distress playing a more pivotal role in the risk process. These findings highlight the enduring negative effects of parental neglect on adolescents' subsequent development through dynamic interactions across different development domains. In addition to primary and secondary prevention strategies to reduce adolescents' experiences of parental neglect, a renewed focus on later-stage interventions—especially those addressing psychological distress—is essential to breaking the vicious cycle.

Zhang, Yizhu, Zeng, J., Long, W., & Pang, X. (2025). **The difference in mental health between students in boarding school and rented accommodation in Rural China**.

International Journal of Educational Research, *133*, 102637. https://doi.org/10.1016/j.ijer.2025.102637
Understanding the mental health differences of children in various environments helps provide targeted psychological services to vulnerable children. In rural China, the implementation of school mergers and the migration of rural labor have resulted in an increase in the number of rural children residing in boarding schools or rented accommodation. However, the differences in the impacts of these two accommodation modes on children's mental health remain unclear. Utilizing survey data from 8032 rural fourth and fifth-grade students in Yulin City, we assessed the differences in mental health levels among children in boarding, rented accommodation and living at home, alongside gender differences. The results indicate that the mental health of children in rented accommodation is superior, even more than that of those living at home. And the adverse effects of boarding on mental health are significant solely for girls. These findings offer a new insight for policymaking regarding mental health education investments in rural primary schools and promote educational equity in China.

Zhang, Yue, & Dong, Y. (2025). **Gender Wage Gap in Early Careers: Evidence From University Graduates in China**. *Review of Development Economics*, *29*(3), 1677-1692. https://doi.org/10.1111/rode.13181
This study analyzes the gender wage gap (GWG) among early-career graduates from an elite university specializing in finance and economics disciplines. Despite female students performing better academically, the GWG for first jobs is about 21.4%, increasing to 30.0% after 3–5 years. At the major level, significant gaps are found in Finance, Management, and Accounting, while gaps in Economics and Business are minimal. At the educational level, GWG among graduates is relatively smaller. Decomposition analysis reveals female graduates' advantages in observed characteristics act to reduce the GWG by 55.7% and 29.4% in starting wages and current wages, respectively, with more males entering the finance industry. Females with graduate degrees in mega-cities experience a reduced GWG compared to similarly qualified males.

Climat de l'école

Akman, Y. (2025). **Fostering School Attractiveness: The Transformative Influence of Inclusive Leadership and Work Engagement**. *European Journal of Education*, *60*(3), e70210. https://doi.org/10.1111/ejed.70210
This study examines the links between inclusive leadership and school attractiveness through the mediating effect of work engagement. Data was gathered from 487 teachers in 10 provinces across Turkey in 2023. The findings contribute by expanding the study of leadership in non-western countries by revealing the impact of principals' leadership on schools and teachers. The study found that teachers' work engagement and school attractiveness were predicted by the principal's leadership. Furthermore, the study discovered that the relationship between inclusive leadership and school attractiveness was mediated by teachers' work engagement. The findings are explored in the context of their consequences for researchers, practitioners, and policymakers.

Borremans, L. F. N., & Spilt, J. L. (2025). **Committing to all students: Examining teacher competence in relationships with disruptive students**. *International Journal of Educational Research*, *133*, 102676. https://doi.org/10.1016/j.ijer.2025.102676

High-quality teacher-student relationships are crucial for the well-being of both students and teachers. Disruptive students are typically at risk for developing conflictual relationships with their teachers, yet researchers hypothesize that competent teachers can successfully cultivate close relationships even in the face of challenging student behavior. Research on teacher self-efficacy has recently yielded new insights, yet little is known about the specific relationship-building competence dispositions that help foster positive relationships, particularly with disruptive students. This study, first, aimed to further validate the COMMIT-questionnaire which assesses teachers' relationship-building competence dispositions in dyadic interactions. Second, this study aimed to explore the role of teachers' relationship-building competence dispositions in the relation between disruptive student behavior and teacher-student relationship quality. The COMMIT was administered in a sample of 526 teacher-student dyads. Findings supported validity of the COMMIT and highlighted the significance of teachers' relationship-building competence dispositions in establishing high-quality relationships, particularly with disruptive students. Specifically, teachers' attitude and self-efficacy in building closeness and coping with conflict were linked to closer and less conflictual relationships with all students. Teachers' knowledge and self-efficacy in reflective functioning additionally contributed to high-quality relationships for disruptive students. While further research is required to resolve inconsistencies and replicate recent findings, the present study improved our understanding of the teacher competence dispositions that contribute to establishing positive teacher-student relationships, even when that is challenging.

Camacho, A., Romera, E. M., Gómez-Ortiz, O., Antypas, K., Muller, S., Laudańska-Krzemińska, I., & Wiza, A. (2025). **Does School Climate Contribute To Psychological Adjustment? The Role of Resilience during Childhood**. *Child Indicators Research*, *18*(4), 1527-1548. https://doi.org/10.1007/s12187-025-10255-5
A supportive school climate helps schoolchildren's psychological adjustment, but it is relatively unknown about the processes that make these effects last over time. The present study aimed to examine the mediating role of resilience in the effects of school climate on psychological adjustment at the within-person level. The participants were a total of 1,052 primary school children (MChildrenAgeT1 = 8.19, SD = 1.76; 50% girls) from Spain, Poland, and Norway. Parents (87% mothers) reported on the study variables in four waves. School climate positively predicted prosociality and inversely internalizing and externalizing problems. Resilience was predicted by school climate and predicted psychological adjustment. Significant indirect effects were found on the mediating role of resilience. These results suggest that developing school climate helps children handle stressful situations and improve their adjustment.

Cao, X., Huang, Z., Wu, J., Li, M., & He, T. (2025). **Unraveling cyberbullying dynamics among K-12 students: Latent profile analysis and artificial intelligence**. *Education and Information Technologies*, *30*(12), 16601-16631. https://doi.org/10.1007/s10639-025-13445-4
Cyberbullying has garnered growing attention, yet existing research lacks nuanced insights into the dynamics of students' cyberbullying profiles and the associated risk factors across multiple domains. This study aims to (1) investigate K-12 students' cyberbullying profiles, (2) develop an AI predictive model for cyberbullying roles, and (3) examine the relationship between cyberbullying profiles and risk factors across four domains: information and communication technology (ICT) profiles, moral development, normative social influence, and demographic characteristics. Latent profile analysis of

4721 students identified three distinct cyberbullying profiles: "Cyber bully-victims", "Cyber passive and defenders", and "Cyber victims and bystanders". Through AI-based model competition experiments, we identified 13 key predictors and constructed a robust Random Forest model that accurately predicts profiles. The results reveal that information dissemination literacy emerges as the most prominent predictor, and students with higher literacy tend to fall into "Cyber bully-victims" or "Cyber victims and bystanders". Additionally, students with excessively high moral emotions or difficulties in making moral judgments about harm are more prone to be "cyber victims and bystanders". These findings reinforce a deeper understanding of cyberbullying profiles and their antecedents among K-12 students, and offer researchers an AI-based methodological approach for robust prediction of students' cyberbullying in practice.

Choi, B., & Park, S. (2025). **Does the conception of bullying differ by gender? Examining differences in factor structures, longitudinal stabilities, and victimization-perpetration overlap**. *International Journal of Educational Research*, *133*, 102739. https://doi.org/10.1016/j.ijer.2025.102739
While prior research has suggested that boys and girls conceptualize bullying differently-boys' bullying being more physical and girls' more relational—and that their longitudinal characteristics may vary accordingly, these hypotheses have not been tested empirically. The current study addresses this gap by employing multi-group analysis on a cross-lagged panel model to examine whether the factor structures (i.e., metric invariance), longitudinal stabilities, and interrelationships (i.e., structural invariance) of bullying perpetration and victimization differ by gender. Data were drawn from Seoul Education Longitudinal Study for three waves (7th to 9th grade) with 3617 South Korean adolescents (age mean= 12.43, standard deviation=1.48 in the first wave). The results of the factor structure analysis indicated that boys' bullying was both physically and relationally focused, whereas girls' bullying was predominantly relational. Furthermore, girls' bullying perpetration and victimization demonstrated greater longitudinal stability, with stronger victimization-to-perpetration pathways compared to boys. These findings highlight that the conceptualization of bullying differs by gender, and these qualitative differences in how bullying is constructed can provide critical insights into understanding its longitudinal stability and victimization-perpetration overlap.

Enkhtur, A., Enkhtur, O., Davaajav, N., & Gundsambuu, S. (2025). **Bringing knowledge home: Agency and organizational climate in returnees' contributions to Mongolian higher education**. *International Journal of Educational Research*, *133*, 102732. https://doi.org/10.1016/j.ijer.2025.102732
This study examines the contributions of internationally educated STEM graduates sent from and returned to higher education institutions in developing contexts, highlighting their integration and impact within these organizational environments. Using qualitative data collected in multiple phases between 2017 and 2023,it explores the dynamics of individual agency, institutional support, and structural barriers faced by returnees. Drawing on interviews and surveys with 26 unique participants—including 19 MJEED graduates and 7 academic leaders across two Mongolian universities—the study demonstrate that although graduates experience significant professional transformation during their studies abroad, their ability to effectively apply newly acquired knowledge is often constrained by rigid organizational climates, misaligned roles, and limited resources. Nonetheless, returnees proactively leveraged their international networks and formed alliances to advance research and curriculum development. This study highlights

the need for higher education institutions to adopt flexible employment practices and foster supportive organizational climates to maximize the potential of internationally educated scholars. In doing so, it uniquely contributes to ongoing scholarly conversations on international education, STEM capacity-building, and addressing institutional inequities in higher education.

Garipağaoğlu, B. Ç. (2025). **Achieving Organisational Agility in K-12 Schools Through School Mindfulness: The Role of School Social Capital as a Mediator**. *European Journal of Education*, *60*(3), e70170. https://doi.org/10.1111/ejed.70170
Agility matters in today's highly disruptive, and technology driven business landscape. The purpose of this research is to highlight the mediating role of school social capital between school mindfulness and organisational agility in K-12 schools in Turkey. The study employs the design of cross-sectional correlational research. The data was collected from 726 teachers and analysed by Structural Equation Modelling (SEM) and Process Macro. The research has found out that 'school social capital' has a significant mediating effect on the relationship between 'school mindfulness' and 'organisational agility'. Research findings indicate that high levels of organisational mindfulness lead to enhanced social capital, which, in turn, fosters greater organisational agility. Our research shows that building a culture of mindfulness and fostering strong social capital are key strategies for strategic agility. Therefore, we recommend school principals to mindfully and continually invest in their school social capital to improve their organisational agility for the accomplishment of their school goals. Moreover, the study recommends the prompt implementation of school mindfulness programmes to pave the way for school agility. Future research may adopt longitudinal or experimental research methods to further verify the results of this study or suggest other possible mediators or moderators to better explain the antecedents of organisational agility.

Garric, J. (2025, janvier 6). **L'exclusion scolaire : entre discours idéologiques et réalité quotidienne**. Consulté 1 septembre 2025, à l'adresse AOC media - Analyse Opinion Critique website: https://aoc.media/analyse/2025/01/06/lexclusion-scolaire-entre-discours-ideologiques-et-realite-quotidienne/
Accusée d'être trop permissive et à l'origine de la disparition du respect de l'autorité, l'école française, est en réalité le théâtre d'une véritable inflation punitive. Parmi ces punitions, l'exemple des exclusions de cours se fait le reflet d'une violence éducative banale totalement inefficace et contre-productive, participant à la construction des désordres scolaires, favorisant le décrochage et la mise à l'écart des « inadaptés ».

Jo, H. (2025). **Understanding Cyber Violence: Factors Influencing Cyberbullying among School-Aged Children**. *Child Indicators Research*, *18*(4), 1823-1849. https://doi.org/10.1007/s12187-025-10240-y
The pervasive nature of cyberbullying among adolescents necessitates a nuanced understanding of its underlying factors. This study examines the relationships between various predictors and cyberbullying behaviors, focusing on discriminant prejudice, exposure to harmful content, digital sex crimes, and cyberbullying education. Utilizing Partial Least Squares Structural Equation Modeling (PLS-SEM) on a sample of 1,999 cyberbullying perpetrators identified in the 2022 National Cyber Violence Survey conducted by the National Information Society Agency, this research provides comprehensive insights into these associations. Findings indicate that discriminant prejudice, exposure to harmful content, and digital sex crimes are significantly

associated with cyberbullying. Additionally, cyberbullying education is positively related to online harassment perception but not significantly related to cyberbullying tendencies. Online harassment perception is negatively related to cyberbullying. Cyberbullying is positively associated with rationalization. Moreover, cyberbullying disclosure is associated with both increased remorse and rationalization. These results underscore the complex interplay between individual attitudes, online experiences, and educational interventions in shaping cyberbullying behaviors. The study contributes to the literature by emphasizing the role of targeted anti-prejudice programs and cyberbullying education in fostering a safer online environment for adolescents.

Le Bot, G. (2024, mai). ***Well-being concept perceptions by actors involved in physical education field***. Consulté à l'adresse https://hal.science/hal-05187057
Introduction and objectives Well-being is a concept that society and school institutions are embracing nowadays. Well-being is a major objective follow-up by the French National Education Ministry. Well-being was also investigated by educational researchers. Different models of well-being at school are described in research literature. But we can wonder how the concept of well-being is really perceived and integrated by actors involved into physical education field. The aim of this research was to document how the concept of wellbeing in physical education is apprehended and defined by a group of trainee teachers, secondary school teachers and trainers in bachelor's degree of sport and physical education faculty. Methods To reach this aim we conducted eleven interviews: three with PE teachers (2 women, 1 man), four with trainee PE teachers (3 men, 1 woman) and four with sport and physical education faculty' trainers (2 men and 2 women). These interviews lasted an average of 30 to 40 minutes. All participants gave their consent prior to the in- terviews. They were informed that the data would be anonymized and would not allow them to be identified. They were approached on the basis of convenience sampling. We ensured that the sample was diverse in terms of gender and status. We transcribed, coded and analyzed the eleven interviews by two researchers using a thematic content analysis. To do this, we first coded them separately, then joined our coding. This process, repeated over three interviews (one per participant status), enabled us to adjust the categories identified and the units of meaning. This step minimizes the difficulties and biases associated with coding. Results and discussion We have shown as results that the concept of well-being is defined by most of our participants in accordance with the literature as feeling good. The concept of well-being is also defined by this group of participants involved in PE based on seven perspectives: global/local wellbeing, physical wellbeing, mental wellbeing, social wellbeing, emotional wellbeing, personal development wellbeing and ephem- eral/durable wellbeing. We discussed these results and 1) the key role that PE can play in putting students in movement, in getting them to move their bodies, which can contribute to producing different forms of well-being; 2) the importance of bod- ily well-being in linking the physical, mental and emotional dimensions developed in a specific context that leads students to interact with others (social dimension) and to project themselves through action (personal development); 3) the possibility of considering well-being along a spatial and temporal continuum aimed at going be- yond the state of well-being experienced in PE to transfer its main dimensions to the different places and moments of students' lives. Keywords: well-being, content analysis, physical education, secondary schools teachers, teacher education training

Lightfoot, S., Mander, S., & Doehler, S. (2025). **Can You Hear Me? Empowering From Afar: The Impact of Participating in Staff Recruitment on the Student Experience of HE Distance Learners**. *Higher Education Quarterly*, *79*(3), e70024. https://doi.org/10.1111/hequ.70024
This paper explores the impact of student participation in staff recruitment processes at a UK distance learning Higher Education Institution, examining its contribution to quality in teaching and learning. Drawing on Self-Determination Theory, the study investigates how students' involvement in high-level decision-making affects their sense of agency, wellbeing, and belonging. Using creative, arts-based methods, three distance students reflected on their experiences through visual representations and follow-up narrative interviews. Findings indicate that authentic student voice activities can enhance students' perceptions of educational quality, promote a sense of inclusion, and support emotional and academic wellbeing. Participants reported increased confidence, respect for the institution, and clarity of purpose in their studies. This research highlights the value of embedding student voice across institutional practices and proposes a more holistic, participatory approach to quality that reflects the realities of distance education and the diverse identities of students.

Mansour, L. (2025). **Echoes of violence: experiences of Palestinian Arab students in Israeli academia during the violent events of May 2021**. *Higher Education*, *90*(1), 157-175. https://doi.org/10.1007/s10734-024-01315-w
This paper investigates the challenges faced by Palestinian Arab citizens of Israel (PAI) who are students in Israeli higher education institutions amidst periods of national turbulence and violence, particularly focusing on the violent events of May 2021. Using interviews with students, academics, and members of civil society organisations, the paper puts forth a constructivist grounded theory model that charts the impact of the violent events of May 2021 on PAI students. It reveals that students' experiences of violence, in various forms, give rise to a host of emotional, social, and political processes that heighten their awareness of the structural violence of the broader Israeli-Palestinian struggle. In response, PAI students withdraw both physically and mentally from their campuses and concurrently mobilise within their communities to address unmet needs neglected by official authorities. The perceptions of PAI students regarding their institutions' responses to political issues are marked by intense cynicism—a sentiment that is mitigated by individual supportive initiatives by faculty members. Based on the findings, the paper argues that periods of political escalation are not to be viewed as fleeting events that heighten emotions but rather as critical junctures where identities and perceptions are formed, leaving an impact that lasts long after the immediate turbulence subsides.

Morallas, G. A., & Baguio, J. B. (2025). **A Descriptive Correlational Study between School Environmental Condition and Student Well-Being in Public Elementary Schools**. *Journal of Scientific Research and Reports*, *31*(7), 1-11. https://doi.org/10.9734/jsrr/2025/v31i73222
This study aimed to assess the school environmental condition and student well-being in public elementary schools in Braulio E. Dujali District, Division of Davao del Norte. A non-experimental quantitative research design utilizing a correlational method was employed to determine the relationship and influence between the two variables. The respondents of the study consisted of 130 teachers selected through universal sampling. To analyze the data, the study utilized statistical tools such as the Mean, Pearson Product Moment Correlation Coefficient (Pearson r), and Regression Analysis. The findings revealed that the level of school environmental condition and student well-being was

high. Furthermore, a significant relationship was identified between school environmental condition and student well-being. The results also showed that the domains of school environmental condition significantly influences student well-being. Based on these findings, it is recommended that school administrators and stakeholders may continue to enhance and maintain positive environmental conditions within schools to support and improve students' overall well-being. Further programs, policies, and interventions that promote a healthy and supportive school environment should be developed and implemented to ensure the holistic development of learners.

Mundelsee, L., & Reschke, K. (2025). **Classroom interactions: The role of students' gender, classroom subject, and social relations for student hand raising, teacher calls, and student talk time**. *International Journal of Educational Research*, *133*, 102711. https://doi.org/10.1016/j.ijer.2025.102711
Numerous studies show gender differences between boys and girls in STEM subjects compared to language-related subjects. Boys are often more interested and have better grades in STEM subjects, while girls prefer language learning and get better grades in language-related subjects. Research has already identified a number of different reasons for this pattern, but so far little attention has been paid to oral participation as potential explanatory variable, although it is directly and indirectly associated with student achievement. By examining student hand raising, teacher calling behavior as well as student talk time, the present study focuses on three specific aspects of oral participation, taking into account relationships between students, their peers, and teachers as potential moderating factors. Data from N = 204 students (54 % female, Mage = 12.29 ± 1.11 years) included self-reports and classroom observations of at least three German language arts and three math lesson. Results of multilevel analyses confirmed that girls had higher grades and interest in German, while boys showed greater interest in math. However, no significant gender differences were found in the observed oral participation variables in either subject. Peer relationships negatively affected boys' oral participation in German and positively in math, while teacher-student relationships promoted girls' oral participation in math. These findings suggest that subject interest does not directly translate into oral participation or explain gender differences in achievement. Instead, relationships with peers and teachers, but also stereotypes of students themselves appear to play a critical role in shaping in-class participation patterns.

Ocasio-Stoutenburg, L., Nunez, C., Sudduth, C., Nevares, A., Cruz, N., Garilli, A., … Schladant, M. (2025). **'She became this liaison'. Perspectives of a preschool community on coaches as brokers of assistive technology access, communication, and support for teachers and caregivers of children with disablities**. *International Journal of Inclusive Education*, *29*(11), 2064-2089. https://doi.org/10.1080/13603116.2024.2337058
While AT has been well-documented as a valuable support for disabled and nondisabled children across developmental domains and settings, several barriers to access and implementation persist. Studies have described heightened barriers for community-based preschools, whose access to AT professional development, AT resources, and practitioners with AT experience may be limited. Researchers in this qualitative inquiry engaged twenty-seven participants (teachers, teacher assistants, caregivers and administrators) to learn about their experiences of an AT intervention programme over a 2-year period. Using Constructivist Grounded Theory Methodology, we analysed data from focus groups and semi-structured interviews, generating five themes. Members of

the school community valued the programme's AT coaches, whose presence, affective style and actions promoted their confidence using AT. While the COVID-19 pandemic impacted both programme delivery and participants' experiences, the programme and its coaches helped bolster technology and communication access in unanticipated ways. Insights from this inquiry emphasise the important, yet often understated role of building relationships with all participants when delivering community-based preschool interventions, invaluable in meeting the holistic needs of children, as well as the practitioners and families who support them. Notably, AT coaches were perceived as liaisons, building rapport, providing technical assistance, and sustaining connections within a school learning community.

Pereira, D., & Pocinho, M. (2025). **How Attachment Based Educational Practices Can Contribute to Reduce Stigma at Schools?** *European Journal of Education*, *60*(3), e70161. https://doi.org/10.1111/ejed.70161
This study aims to evaluate the formative and reflective methodology—Thinkspace—which is aimed at teachers and based on Attachment Theory, allowing pedagogic strategies to be adjusted to the internal working models of attachment of students with challenging behaviours. The sample consisted of 28 teachers from the 5th to the 9th grade of schooling, belonging to schools in the Autonomous Region of Madeira, Portugal. We used a sociodemographic questionnaire, the Adult Attachment Scale, the Student-Teacher Relationship Scale and the Teacher Report Form for Teachers as evaluation instruments. Results show important changes in how teachers evaluate their students' behaviour and educational strategies, with higher use of Proximity and less use of Conflict within the relationship with challenging students. In conclusion, the "Thinkspace" methodology helped teachers adjust their strategies for improving the pedagogical relationship with the students that they considered challenging. Despite the small sample size, the study has significant ecological validity, providing clear indications that more research should focus on the applicability and benefits of educational practices informed by Attachment Theory and the "Thinkspace" model.

Pérez-Marco, M., Fuster, A., Gonzálvez, C., Hamadi, S. E., & Havik, T. (2025). **Exploring patterns of school absenteeism: Links to school climate in adolescents**. *International Journal of Educational Research*, *133*, 102674. https://doi.org/10.1016/j.ijer.2025.102674
School climate or perceiving the school as a friendly environment enhances students' sense of belonging and school attendance. However, there is a clear lack of previous research related to school absenteeism/school attendance problems and school climate. Therefore, this study examines the connections between school absenteeism and school climate. The Assessing Reasons for School Non-Attendance (ARSNA) and the What's Happening In This School? (WHITS) were answered by 997 adolescents (Mage = 14.91, SD = 1.82). Using latent profile analysis, four school absenteeism profiles were identified. MANOVA showed that students of the Non-school absenteeism profile reported the highest school climate scores, while those of High school absenteeism scored the lowest. These findings suggest that a positive school climate foster school attendance and reduces the risk of absenteeism. This research offers a foundational framework for developing targeted educational strategies to address school absenteeism effectively from a global and holistic perspective.

Perla, L., Agrati, L. S., Vinci, V., & Amati, I. (2025). **Prevent the Refugee Students' Marginalisation. A Practitioner Research Study on Case-Based Method**. *European Journal of Education*, *60*(3), e70148. https://doi.org/10.1111/ejed.70148
This work focuses on the teacher training case-based for preventing the refugee students' marginalisation. Some key-elements in prevention of marginalisation in school are presented in the first part: the holistic descriptive model and the difficulty in resorting to practical-based strategies for teachers training. A professional research study conducted in 2023 at the post-graduate training course is presented in the second part. The study involved 110 teachers and investigated the effectiveness of case-based training, specifically, how much it favours teachers' ability to grasp the multilevel factors useful for avoiding the marginalisation of refugee students. The results provide arguments in favour of case-based teacher training in classroom reception. The case-based method could help teachers to understand the complexity of the integration processes of refugee students within the classroom and to take on the necessary multilevel perspective. The analysis also reveals the prevalence of the student-teacher relational level.

Petersen, J., Bryant, M., Concha, N., Firman, N., Hawking, M. K. D., Jama, S., … Dezateux, C. (2025). **Impacts of discretionary universal free school meal schemes on primary school children's education attainment and school absence: A natural experiment study in England**. *International Journal of Educational Research*, *133*, 102713. https://doi.org/10.1016/j.ijer.2025.102713
Discretionary Universal Free School Meal (UFSM) schemes for 4-11-year-olds were implemented in four local authorities with high child poverty levels in London, UK. The schemes were initiated between 2009/10 and 2014/15. The first scheme was evaluated as part of a national 2-year pilot. The present study concerns the first six years of all four schemes. In addition, we report on the longer-term effects (7+ years) for two of the schemes while the others were interrupted by COVID-19. The intention-to-treat impacts on z-score standardised attainment scores (reading, mathematics) and school absence in 10-11-year-olds were studied in a natural experiment design. We used a dynamic difference-in-differences approach with matched controls in sociodemographically similar neighbourhoods elsewhere in London. UFSM provision was on average not significantly associated with attainment nor absence during the initial six years of the schemes. However, scheme effects differed by local authority with the two longest running schemes showing positive results for reading and mathematics as secondary outcomes. Further studies are needed to better understand the mechanisms, how the schemes impact on the school environments, and how they may be improved.

Prosen, S., & Vitulić, H. S. (2025). **Does the School Context Play a Role in Teachers' Emotion Regulation and Mental Health? A Comparison of Teachers in Primary and Lower Educational Standard Schools**. *European Journal of Education*, *60*(3), e70163. https://doi.org/10.1111/ejed.70163
The research compares teachers working in regular primary schools with those working in special primary schools (for students with mild intellectual disabilities) regarding their emotion regulation strategies and their self-assessed mental health. The sample consisted of 114 Slovenian teachers from regular schools and 60 teachers from special schools, who participated by completing questionnaires on emotion regulation strategies and general health. The quantitative methodological approach was supplemented by qualitative data gathered via interviews with three teachers from each school context. When

comparing the two school contexts, it was found that teachers in regular schools more often avoided specific emotion-triggering situations, while teachers in special schools tended to seek social support more frequently. Compared to regular school teachers, special school teachers reported more difficulties regarding their feeling of usefulness and self-confidence, experienced different emotions, and used a combination of emotion regulation strategies within a given emotion-triggering situation.

Richardot, S., Laglenne, L., & Guérin, D. (2025). **Violences sexistes et sexuelles en contexte universitaire : victimes, conséquences et (non-)recours aux dispositifs institutionnels d'accompagnement**. *Revue française des affaires sociales*, *252*(2), 217-243. https://doi.org/10.3917/rfas.252.0217
La population étudiante est particulièrement exposée aux violences sexuelles et sexistes (VSS). Aussi les établissements d'enseignement supérieur ont-ils mis en œuvre, à partir des années 2010, une politique de prévention et de lutte contre ce type de violence. L'objet de cet article est d'analyser les conséquences des VSS sur les victimes et la manière dont les étudiant·es se sont appropriés les dispositifs institutionnels mis en place localement afin de recueillir leur témoignage, les accompagner dans leurs démarches juridiques ou les prendre en charge sur le plan sanitaire lorsqu'ils ou elles se trouvent confronté·es à ce type de violence. L'enquête quantitative a consisté à croiser l'expérience des étudiant·es et celle du personnel du Service de santé étudiant (SSE). L'étude révèle un décalage entre les faits rapportés par les étudiants, qui relèvent le plus souvent du harcèlement sexuel commis par d'autres étudiants, et ceux répertoriés par le SSE qui relèvent du viol ou de l'agression sexuelle, survenus le plus souvent dans le cadre intrafamilial. Néanmoins, la confrontation des données fait apparaître des points de convergence : symptômes de stress post-traumatique consécutifs au viol, relation de couple comme source de vulnérabilité pour les femmes. L'étude permet de mieux comprendre les réticences des victimes, pour la plupart des femmes, à dénoncer les faits subis et invite à intégrer, pour étudier les vulnérabilités étudiantes, les VSS comme facteur de risque.

Rodríguez-Izquierdo, R. M. (2025). **University Social Responsibility: Unravelling the Perceptions of External Stakeholders**. *Higher Education Quarterly*, *79*(3), e70035. https://doi.org/10.1111/hequ.70035
The paper examines how external stakeholders conceptualise university social responsibility (USR) and their perceptions about how universities implement USR in practice. A total of 18 external stakeholders from eight universities were interviewed. The results indicated that there was no shared and common conceptualization of USR and that USR was recurrently related to the areas of teaching, research, or community engagement, revealing an omission of management, governance, and campus life. This study contributes to the body of knowledge on USR by shedding light on the perspective of actors that are not sufficiently addressed in the literature, that is, those of external stakeholders. We argue for a revisited USR based on a reflective debate on the potential role of external stakeholders in helping higher education institutions address societal needs. The study informs practical applications that policymakers can use to advance their social impact and reduce the gap between USR policy and practice.

Rubio-Cabañez, M. (2025). **Stratifying cities: the effect of outdoor recreation areas on children's well-being**. *European Sociological Review*, *41*(3), 472-486. https://doi.org/10.1093/esr/jcae028

This study examines how the presence of outdoor recreation areas such as parks and playgrounds affects children's well-being and how this effect is moderated by families' socioeconomic status. Specifically, I aim to answer two research questions. First, does the presence of outdoor recreation areas in children's neighbourhoods affect their cognitive well-being? Second, is there a differential effect depending on children's socioeconomic status? The main part of the study uses data from the International Survey of Children's Well-Being. The results suggest that the presence of outdoor recreation areas in children's neighbourhoods has a positive effect on their well-being. In addition, the estimated effect of outdoor recreation areas is larger for children from families with low socioeconomic status. Finally, findings from the Growing Up in Ireland data set suggest that children's reduced mental problems are a plausible mechanism through which outdoor recreation areas affect children's well-being. These findings have meaningful policy implications. Providing better access to appropriate outdoor recreation areas appears to benefit disadvantaged children more and thus reduce inequality in children's well-being.

Schlesier, J., & Obermeier, R. (2025). **Individual and Contextual Determinants of Primary and Early Secondary School Students' School Well-being: A Discriminant Analysis and Cross-lagged Panel Model Approach**. *Child Indicators Research*, *18*(4), 1875-1903. https://doi.org/10.1007/s12187-025-10239-5
Previous studies have explored links between students' school well-being and their performance, motivation, and emotions, but have only rarely identified the specific factors that characterize students with particularly high or low well-being in school. This study aims to help narrow this research gap by: (1) identifying those individual and contextual factors that contribute to particularly high or low levels of students' well-being at school; and (2) drawing some causal conclusions of special interest to educators and stakeholders. In this context, two samples of primary and lower secondary school students (Sample 1: 635, Sample 2: 118 respectively) were asked via a questionnaire about contextual factors (perceived autonomy support and perceived competence support) and individual factors (school-related helplessness, gender, immigration background, need for additional support, and the emotion regulation strategies 'reappraisal' and 'suppression'). The questionnaire was administered to Sample 1 at one point of time and Sample 2 at two separate time points (t1 and t2). The results of the MANOVA and discriminant analysis (Sample 1, cross-sectional) indicate that students' well-being at school is determined primarily by their levels of school-related helplessness, their suppression of emotions, and their perceptions of autonomy and competence support provided by their teachers. The cross-lagged panel model (CLPM) (Sample 2, longitudinal) supports the fact that the use of the emotion regulation strategy 'suppression', in particular, inhibits the development of a high level of well-being at the beginning of the school year. These findings are especially relevant, as they demonstrate the possibility of utilizing data collected for purposes other than assessing students' school well-being, to address related questions.

Shahbaz, H. S., & Rauf, N. K. (2025). **Exploration of Factors Influencing Peacebuilding Among Students of Higher Education Institutes in Pakistan**. *European Journal of Education*, *60*(3), e12883. https://doi.org/10.1111/ejed.12883
Peacebuilding is a comprehensive and multidimensional process aimed at creating sustainable peace by addressing the root causes of conflict and fostering an environment where individuals and communities from diverse cultural, ethnic, racial,

religious, and national backgrounds can coexist harmoniously. This process involves a range of activities, including conflict prevention, resolution and transformation, as well as post-conflict reconstruction and reconciliation. In Pakistan, there were many cases of violent behaviours reported in educational institutes that disturbed the peace in the environment. Formal study helped to explore the underlying factors that affect the process of peacebuilding in higher education institutes of Pakistan. For this purpose, data was collected from public sector universities. The sample comprised students from the third year of undergraduate studies onward, selected based on their prior experience with violent incidents in their educational institutes. Data was collected by focus group discussions and interviews from teachers, students and administrative members of universities. Transcription and translation were done using audio recordings. Thematic analysis was done to explore the themes identified by participants using an inductive-deductive approach. Five themes were identified using extracts of the participants named as: Intra-personal, inter-personal, inter-group, environment based and religious factors. These themes were identified on the basis of both semantic and latent meanings from the extracts of participants. Suggestions for strategies that can contribute towards peacebuilding and recommendations for research were made.

Sherwood, S. H., Amadori, A., Russell, S. T., & Ioverno, S. (2025). **School Outness, Bias-Based Bullying, and Bias-Based Cyberbullying Across Europe**. *Child Development*, *96*(5), 1730-1748. https://doi.org/10.1111/cdev.14266
This study examined school outness, school climate, and country inclusivity to assess their associations with bias-based bullying and cyberbullying among sexual and gender minority youth (SGMY) in Europe in 2020–2021 (N = 12,764; Mage = 16.07; 69% female; 43% cisgender girls; 31% bisexual). Outness was positively related to bias-based bullying (β = 0.10, R2 = 0.21) and cyberbullying (β = 0.04, R2 = 0.15). Interaction results indicate that in less inclusive countries, outness remained significantly associated with both forms of bullying. However, effect sizes were lower when school safety and peer support were high compared to when they were low. In less inclusive countries, school efforts to promote safety and peer support can reduce bullying experiences for out SGMY.

Villumsen, A. M., Engsig, T. T., & Jakobsen, I. S. (2025). **Pathways to belonging in the transition to school: the perspectives of children**. *International Journal of Inclusive Education*, *29*(10), 1619-1636. https://doi.org/10.1080/13603116.2023.2283525
This article presents the perspectives of children on the topic of belonging in school in connection with the transition to school. The study is based primarily on pictures drawn by children who have just entered the school system. We asked children to draw pictures of what makes school a place where a new pupil feel they belong – especially if they are new and struggling a little. Our specific focus is on belonging as a significant resiliency factor. The study was undertaken in Denmark and based on 32 drawings and eight observational video recordings. We applied a qualitative content analysis. Using the process of drawing is a meaningful methodical approach when children are asked what it takes to feel they belong in school. The results and analysis of the drawings show that the focus of the children is child communities, friendships with other children and play – and they link this to spaces and places. Two things are absent from this focus: the school and adults. Two of the striking elements when asking children about this matter is that they display a great readiness for participation as well as inclusion of newcomers in their child communities.

Wang, W., Khasawneh, M. A. S., Sarabani, L., & Ismail, S. M. (2025). **Investigating the Influence of Positive Classroom Management Strategies on Academic Buoyancy, Academic Engagement, Psychological Well-Being and Language Achievement: Visions From EFL Learners**. *European Journal of Education*, *60*(3), e70149. https://doi.org/10.1111/ejed.70149

This study examined the impact of positive classroom management techniques on language learners' academic buoyancy, engagement, psychological well-being and language achievement. Grounded in the theoretical framework of positive psychology, the research adopted a concurrent mixed-methods design, combining qualitative interviews with quantitative assessments to provide a comprehensive understanding of the phenomenon. The study involved 50 lower-intermediate language learners aged 18 to 23, who were randomly assigned to either an experimental group or a control group. The experimental group was exposed to positive classroom management interventions, while the control group participated in traditional teacher-fronted sessions. The qualitative findings revealed that positive classroom management strategies significantly enhanced the EFL learners' academic buoyancy, engagement and psychological well-being. Furthermore, the quantitative outcomes demonstrated a statistically significant improvement in academic achievement among the experimental group, with these learners outperforming their counterparts in the control group on posttest measures. These results offer valuable implications for EFL teachers, materials developers, syllabus designers and policymakers, emphasising the importance of integrating positive classroom management strategies into educational practices and policies to foster holistic learner development.

Yaban, E. H., Heikamp, T., & Gaschler, R. (2025). **The gender-specific inter-role conflict and academic well-being in distance education: The mediating role of developmental regulation processes**. *International Journal of Educational Research*, *133*, 102690. https://doi.org/10.1016/j.ijer.2025.102690

Distance education offers learners the flexibility to choose when, where, and how they study, enabling them to pursue academic goals alongside work, family, and other responsibilities. Yet, this flexibility often requires greater self-regulation. Bidirectional inter-role conflicts—such as those between university and family or university and work—can undermine academic well-being in this context. Developmental regulation processes, including meta-regulation, goal engagement, and goal disengagement, provide a valuable framework for navigating these challenges. The current two-wave longitudinal study examined the mediating role of developmental regulation in the relationship between inter-role conflicts at the beginning of the semester (Time 1 [T1]) and academic well-being three months later (Time 2 [T2]) among 200 distance education students (76.5% women) aged 18-73 (M = 35.10; SD = 12.60). Concerning inter-role conflicts, a 2 (gender) × 4 (resource conflicts) repeated-measures ANCOVA revealed a significant interaction. Women reported more university-family conflict than the other conflict types (i.e., family-university, work-university, and university-work conflict), while men reported more work-university conflict. Across genders, university-work conflict was perceived as the least intense. Structural equation modeling (SEM) revealed that inter-role conflicts at T1 were negatively related to academic well-being at T2, whereas developmental regulation at T1 was positively associated with later academic well-being. On the one hand, the results highlight gender differences in how students experience inter-role conflict. On the other hand, developmental regulation partially mediated the relation between resource conflicts and academic well-being, emphasizing its role in supporting

distance education students navigating competing demands and maintaining academic well-being, regardless of gender.

Zanobini, M., Chiorri, C., & Viterbori, P. (2025). **Psychometric properties of the Italian adaptation of the short form of the Quality Scale of Inclusive School Development (QU!S-S)**. *International Journal of Inclusive Education*, *29*(11), 2002-2018. https://doi.org/10.1080/13603116.2024.2334934
School inclusion is a reality in many countries around the world and most schools face the challenges of implementing inclusive education. A full inclusion model has been in place in Italy for five decades, but its actual application presents substantial differences between geographical areas, school levels, and individual schools. Thus, the availability of a comprehensive, psychometrically sound, and easy-to-complete measure of school inclusion that can be used for evaluation, screening, and research purposes is crucial. In this study, we investigated the psychometric properties of the Italian adaptation of the Quality Scale of Inclusive School Development-Short Form (QU!S-S) in a sample of 362 teachers from pre-school to 13th grade. The results supported the adequacy of the five-correlated-factor model of the original German version and the discriminant validity of the scales with respect to measures of professional self-efficacy and attitudes towards inclusive education. We also found different patterns of association of the scales with personal and job characteristics of the teachers. Overall, the results support the adequacy of the psychometric properties of the Italian version of the QU!S-S, which can be considered a valid and reliable tool for assessing the core dimensions of school inclusion in an Italian context.

Évaluation des dispositifs d'éducation-formation

Arco-Tirado, J. L., Fernández-Martín, F. D., Torres, M. H., Gregorová, A. B., Heinzová, Z., & Singh, S. S. (2025). **Secondary school dropout prevention through service-learning: A pilot study**. *International Journal of Educational Research*, *133*, 102704. https://doi.org/10.1016/j.ijer.2025.102704
This study investigates the impact of a service-learning program on secondary school dropout prevention in four European countries. The methodological design was a cluster randomized trial. The intervention involved a sample of secondary school students (n = 204), implementing an ad hoc intervention model. Regression results in Model 7 with all predictors and controls show a significant effect in the variable experimental group, with all predictors and controls explaining 27.9 % of the variance. Suggestive positive results are present for other variables like country (Austria) and Slovakia (Model 2), global trait emotional intelligence (Model 3), civic responsibility, civic efficacy (Model 4), civic skills (Model 5), and learning mindset (Model 6). Based on these promising results, some recommendations are made to improve the future impact of this type of comprehensive service-learning program.

Başgül, M., & Coştu, B. (2025). **The effect of Education 4.0 tools on 7th grade students' learning outcomes and attitudes in the electrical circuits unit**. *Education and Information Technologies*, *30*(11), 15645-15689. https://doi.org/10.1007/s10639-025-13404-z
Education 4.0 represents a visionary approach to the future of education, aiming to enhance teaching and learning through advanced technologies. The aim of this research is to determine student attitudes toward the use of Education 4.0 tools in the 7th-grade Science course Electrical Circuits unit. To achieve this, an attitude test was

developed to evaluate the integration of Education 4.0 tools into the Science curriculum, and student attitudes were assessed using this test. A « quasi-experimental design with pre-test and post-test control group, » one of the quantitative research methods, was used in the study. The research involved 41 seventh-grade students from one public secondary schools in Turkey, with 21 students in the experimental group and 20 in the control group. The « Attitude Scale toward the Use of Education 4.0 Tools in Science Teaching, » developed by the researchers, was used as the data collection instrument. The experimental phase lasted four weeks (16 lesson hours), during which the experimental group engaged in activities involving Education 4.0 tools, while the control group followed the curriculum-prescribed activities. The t-test results of the collected data revealed a statistically significant difference between the post-test scores of the experimental and control groups, with the experimental group showing more favorable outcomes. The research findings reveal that students exhibit a positive attitude toward the use of Education 4.0 tools in science education. These results suggest that the integration of Education 4.0 into science education enhances students' understanding of abstract electrical concepts such as electric current, potential difference, resistance, and Ohm's Law, improves knowledge retention, and transforms the learning process into an interactive and discovery-oriented experience. Furthermore, Education 4.0 tools have contributed to the improvement of learning outcomes by promoting student engagement and make learning processes more efficient by improving students' ability to use technology effectively.

Bjork. (2025). **Reconceptualizing the Possible: "Warming Up" the Aspirations of Community College Students**. *Community College Journal of Research and Practice*, *49*(9), 580-597. https://doi.org/10.1080/10668926.2024.2355877
This article analyzes the structure and outcomes of a unique summer bridge program, Exploring Transfer (ET). Community college students who participate in ET spend six weeks living on the campus of a liberal arts college and enroll in two rigorous courses, similar to those offered during the academic year. To assess the impact of this program, the author conducted six focus group discussions with ET graduates. Data from those discussions indicate that taking part in intensive residential immersion programs may have a more profound effect on participants than is often recognized in research that focuses on academic achievement. For FGD participants, the intensity of the ET experience impelled a process of identity reconstruction that led them to expand their views of what they were capable of accomplishing. This article explores the specific features of ET that served to "warm up" students' academic aspirations and professional goals.

Ciff, T., Korpershoek, H., & van der Werf, G. (2025). **The effects of the YCDI! mentoring program on secondary and higher education students' social-emotional skills**. *International Journal of Educational Research*, *133*, 102700. https://doi.org/10.1016/j.ijer.2025.102700
In this article, the outcomes of two studies on the effects of the You Can Do It (YCDI!) Mentoring Program on the social-emotional skills of students in secondary and higher professional education students are presented. The YCDI! Mentoring Program focuses on increasing students' five key skills (the 5Keys), being the level of confidence, persistence, organisation, getting along and emotional resilience (Bernard, 2005). Both studies used a pretest–posttest control group design. In the first study, 144 secondary school students participated in the experiment, and in the second study, a total of 62 students in higher professional education participated. In both studies, the number of students was equally

divided across the experimental and the control group. Questionnaires, covering the five key skills of the Mentoring Program, were administered to measure the self-reported level of students' social-emotional skills at pre- and posttest. The results of the first study revealed that the YCDI! Mentoring Program had no significant effect on the social-emotional skills of secondary school students. However, the effect of the Mentoring Program on the social-emotional skills of the students in higher professional education was significant and substantial. Limitations and implications for theory and practice are discussed.

Çiftçi, E. Y., & Çinpolat, E. (2025). **Internationalisation at Home and Teacher Education: Engaging International Students as Conversational Partners**. *European Journal of Education*, *60*(3), e70213. https://doi.org/10.1111/ejed.70213
Internationalisation at Home (IaH) provides a valuable yet under-utilised approach to fostering intercultural engagement in teacher education, particularly for non-mobile prospective teachers. In this study, we examined the impact of an IaH initiative in which prospective teachers were paired with international students as conversational partners within a course on language and intercultural communication. We analysed focus group interviews and written reports to explore how this experience shaped the prospective teachers' intercultural and professional development. Our analysis showed that integrating coursework with the partnership encouraged participants to critically reflect on their biases, challenge ethnocentric views and adopt a more inclusive perspective. They also gained confidence in working with diverse student populations and developed a deeper appreciation for language learning. Overall, our study outcomes suggest that thoughtfully integrated IaH initiatives can support inclusive, culturally responsive teaching and provide meaningful intercultural experiences for prospective teachers who do not participate in study abroad programmes.

Domingues, A. R., Yakar-Pritchard, G., Mazhar, M. U., Siena, F. L., & Bull, R. (2025). **The Impact of Project-Based Learning on Student Knowledge Exchange for Sustainability: The Case for University–Business Collaborations**. *Higher Education Quarterly*, *79*(3), e70029. https://doi.org/10.1111/hequ.70029
Knowledge exchange in higher education is an emerging area delivered in multiple ways, including university–business collaboration, combining academic knowledge and business needs. Knowledge exchange can act as a vehicle for embedding sustainability in the curriculum and help address significant challenges we face as a society. Student knowledge exchange is driven by students who work on real-world projects, often with businesses involved. There is a need to assess the impact of knowledge exchange on students to inform curriculum design and development for a better student experience and outcomes. This research aimed to better understand the impact of university–business collaboration on student knowledge exchange for sustainability by adopting project-based learning pedagogy. The study draws lessons from the School of Architecture, Design and the Built Environment and Nottingham Business School at Nottingham Trent University. The study found that project-based learning significantly impacts students' sustainability knowledge and competencies. Besides knowledge and competencies, students who work with businesses also gain sustainability skills, attitudes, and behaviours. The design and implementation of project-based learning affect the outcomes, including activities integrated into the curriculum versus extracurricular activities, bespoke versus ad hoc student projects and the duration of students' exposure to sustainability-related topics. This study contributes to higher education teaching and

learning and impacts students' capacity building, affective domain and career readiness. Project-based learning can enhance student knowledge exchange for sustainability, particularly when collaborating with businesses, impacting students and businesses.

Jallow, A. (2025). **Double-Shift Schooling System and Learning outcomes: a Non-Parametric Bounds Analysis**. *PEP Working Paper Series*, (2025-08), 1-73. Consulté à l'adresse https://www.pep-net.org/findings/does-double-shift-schooling-system-affect-learning-outcomes-evidence-gambia
The double-shift schooling system (DSS)—where two groups of students attend classes in shifts—has helped expand access to education in The Gambia. But new evidence by local PEP researchers shows that DSS comes at the cost of reduced learning outcomes, especially for girls and students in the capital region.

Mann, A., & Diaz, J. (2025). ***Tailored Work Experience in Wales*** (OECD Education Working Papers N° 334; 334e éd.). https://doi.org/10.1787/f0560bde-en
This paper examines the Tailored Work Experience (TWE) programme in Wales, an initiative launched in 2022 to re-engage students aged 14–16 at risk of becoming Not in Education, Employment or Training (NEET). Drawing on international research, stakeholder perspectives, and new analysis of data from the 2022 OECD Programme for International Student Assessment (PISA), the paper explores how extended work experience placements can influence student engagement, academic outcomes, and future aspirations. The analysis situates the TWE within broader theories of human, social and cultural capital, and compares it to similar programmes in OECD countries. It finds that while work experience can contribute positively to student motivation and long-term employment prospects, its effectiveness depends heavily on quality, student preparation, and integration with wider career development activities. The paper offers five key considerations for enhancing the TWE programme and highlights the importance of thoughtful design in maximising benefits for socially disadvantaged and low-performing students.

Petersen, J., Bryant, M., Concha, N., Firman, N., Hawking, M. K. D., Jama, S., … Dezateux, C. (2025). **Impacts of discretionary universal free school meal schemes on primary school children's education attainment and school absence: A natural experiment study in England**. *International Journal of Educational Research*, *133*, 102713. https://doi.org/10.1016/j.ijer.2025.102713
Discretionary Universal Free School Meal (UFSM) schemes for 4-11-year-olds were implemented in four local authorities with high child poverty levels in London, UK. The schemes were initiated between 2009/10 and 2014/15. The first scheme was evaluated as part of a national 2-year pilot. The present study concerns the first six years of all four schemes. In addition, we report on the longer-term effects (7+ years) for two of the schemes while the others were interrupted by COVID-19. The intention-to-treat impacts on z-score standardised attainment scores (reading, mathematics) and school absence in 10-11-year-olds were studied in a natural experiment design. We used a dynamic difference-in-differences approach with matched controls in sociodemographically similar neighbourhoods elsewhere in London. UFSM provision was on average not significantly associated with attainment nor absence during the initial six years of the schemes. However, scheme effects differed by local authority with the two longest running schemes showing positive results for reading and mathematics as secondary

outcomes. Further studies are needed to better understand the mechanisms, how the schemes impact on the school environments, and how they may be improved.

Rys, M. (2025). **Youth Hackathons: Empowering the Next Generation of Innovators**. *European Journal of Education*, *60*(3), e70176. https://doi.org/10.1111/ejed.70176
This research delves into the effectiveness of youth hackathons, highlighting their ability to foster innovation, creativity and skill development among school-aged children and teenagers. Through an ethnographic approach and analysis of six such hackathons, the research identifies the desired outcomes of these events, such as enhanced problem-solving abilities and progress of technical and soft skills. Moreover, this study discusses the obstacles faced in organising these events, including the necessity for content suitable for various age groups, safety precautions and finding a balance between fostering healthy competition and maintaining a supportive atmosphere. Furthermore, it provides recommendations for educators, organisers and policymakers to optimise youth hackathons for educational enrichment, emphasising the importance of suitable mentorship, general well-being and long-term impact assessment. Further research is needed to explore the sustained effects of these events on participants' educational trajectories and professional career, thus ensuring that hackathons continue to empower the next generation of innovators effectively.

Teng, J., Gao, C., Yuan, T., Jing, X., & Hu, Y. (2025). **Can 'International Understanding' be successfully taught in schools? – Empirical results from a regional university-school partnership project in Chengdu, China**. *International Journal of Educational Research*, *133*, 102736. https://doi.org/10.1016/j.ijer.2025.102736
The changing international political economy, global uncertainties, and emergencies in recent years are prompting renewed discussions about the role of Education for International Understanding (EIU). This study aims to explore the effectiveness of teaching international understanding related knowledge and skills in Chinese public primary and secondary schools. It is based on a joint 'EIU Curriculum Development Project' between Beijing Normal University and Chengdu Hi-Tech Industrial Development Zone, through collaborative EIU curriculum development. Employing a mixed-methods approach that integrates quantitative and qualitative research techniques, a survey that tests four dimensions of 'international understanding' – willingness, skills, knowledge, and action – has been administered among a total of 21 public schools encompassing 10,979 students. Additionally, semi-structured interviews have been conducted with 30 students involved in the study. The findings of the study reveal two key points: firstly, students participants demonstrate a stronger grasp of 'international understanding' among all four dimensions, compared to their peers in non-participating schools, highlighting the significant role of universities as partners and 'mentors' in guiding practical applications in primary and secondary educational settings. Secondly, among the four dimensions, EIU-specific knowledge plays a critical role in EIU, serving as an essential prerequisite for cultivating willingness, and fostering skills relevant to international understanding. As an on-going long-term university-school partnership (USP) project, the results in this paper provide empirical evidence for future collaboration and improvement in EIU curriculum development, especially for a co-production of EIU between universities and schools.

Formation continue

Arslan, Y., Gordon, R., & Tolmie, A. (2025). **Predictors of Teachers' Knowledge of Educational Neuroscience: A Role for Formal Training**. *Mind, Brain, and Education*, *19*(3), 140-154. https://doi.org/10.1111/mbe.70010
Understanding factors which might influence teachers' knowledge of educational neuroscience is essential for designing effective initial training and professional development programmes. This study assessed teachers' knowledge using our novel Educational Neuroscience Knowledge Test (ENKT). The validated ENKT provided a structured measure of teachers' understanding of educational neuroscience, distinguishing between knowledge of general cognitive functions and special educational needs. Test results allowed for an evaluation of teachers' familiarity with evidence-based concepts in both areas. Findings indicated that formal educational neuroscience training was associated with significantly higher knowledge scores than exposure through continuing professional development (CPD) or informal sources. Implications for teacher training programs and CPD include the need for structured, formal educational neuroscience training to improve teachers' knowledge of this field and better support evidence-informed teaching practices.

Baguio, C. V., & Baguio, J. B. (2025). **Approaches for Developing Instructional Resources and Relational Domains of Teachers in Public Secondary Schools**. *Asian Journal of Education and Social Studies*, *51*(6), 1451-1461. https://doi.org/10.9734/ajess/2025/v51i62088
This study was conducted to determine the approaches for developing instructional resources and the relational domains of teachers in public secondary schools in the Paquibato District, Division of Davao City. A non-experimental quantitative research design utilizing the correlational method was employed. The respondents of the study were 131 teachers, selected through universal sampling. Both descriptive and inferential statistical tools were used to analyze the data. Descriptive statistics, specifically the mean, were used to determine the levels of the variables. Inferential statistics included the Pearson Product-Moment Correlation Coefficient (Pearson r) to examine the relationship between variables, and Regression Analysis to determine the influence of the approaches for developing instructional resources on the relational domains of teachers. The results revealed that the levels of both the approaches for developing instructional resources and the relational domains of teachers were high. A significant relationship was found between the approaches for developing instructional resources and the relational domains of teachers in public secondary schools ($r = 0.820$; p-value = 0.000). Furthermore, the domains of approaches for developing instructional resources significantly influenced the relational domains of teachers ($r = 0.850$; p-value = 0.000). It is recommended that school administrators provide continuous professional development programs focusing on innovative strategies for developing instructional resources. Additionally, teachers may encorage to collaborate and share best practices to strengthen their relational domains.

Borjas, B., Fuenmayor, L. B., Terán, J. G., & Vélez, G. (2025). **Fe y Alegría Venezuela : une formation tout au long de la vie pour des populations vulnérables** (P. Rabaté, Trad.). *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vz

Au cours de ses soixante-dix années d'existence, Fe y Alegría Venezuela a consolidé un réseau éducatif dans les secteurs les plus vulnérables du pays, en promouvant une éducation populaire intégrale, de qualité et inclusive. En une période d'urgence éducative, ce mouvement d'éducation populaire a intégré ses différents programmes en un modèle qui promeut la formation tout au long de la vie.

Chsherbakova, Y., Alimova, S., Pfeyfer, N., & Nygmetova, B. (2025). **SWOT Analysis of Work-Integrated Learning and Online Learning Framework in Higher Educational Institutions of Kazakhstan**. *European Journal of Education*, *60*(3), e70215. https://doi.org/10.1111/ejed.70215
The aim of this study is to conduct a SWOT analysis of online and work-integrated learning in higher educational institutions in Kazakhstan. The participants of the study were 117 s-year students from Toraigyrov University. Students filled out electronic SWOT matrices after completing a three-month period of online and work-integrated learning. The results of the SWOT analysis revealed that the key strengths of online learning in Kazakhstan include its flexibility, accessibility of educational materials and individualisation of the learning process. Weaknesses included the lack of live interaction with instructors and peers, insufficient feedback and technical difficulties. Opportunities for online learning involve access to global education and the enhancement of digital literacy. Threats encompass social isolation, demotivation and potential declines in education quality. The study's practical significance lies in the potential application of its results for enhancing online and work-integrated learning in Kazakhstan, as well as the development of hybrid educational programmes.

Cobb, S. A., Boklage, A., Watson, D., Hunt, G., Contreras, L. M., & Borrego, M. (2025). **Social Capital Development Through a Postdoc Future Faculty Program: Community Building and Mentorship**. *Innovative Higher Education*, *50*(4), 1063-1088. https://doi.org/10.1007/s10755-024-09757-x
It is well documented that social capital, or the resources embedded in one's professional networks, can have a tremendous influence on success in an academic career. Yet it is unclear what postsecondary institutions can do to develop the social capital of their postdoctoral researchers to prepare them for successful faculty careers. This study explored the social capital developed by three cohorts of postdoctoral scholars in a campus-wide development program, including how well the program supported their career aspirations. Interview and survey data were collected from 53 program participants. The mentors assigned to postdocs had the greatest impact, and social capital theory was utilized to understand how these postdocs created community and improved their professional networks during their time in the program. More postdoc development programs are needed to prepare new faculty members for their roles. These programs should be evaluated and publicized so that they can evolve to meet the needs of postdocs across the spectrum of fields and experience levels. This study focused on an understudied population that is crucial to the future of academia while addressing the current academic and political landscape affecting postdocs in the U.S. today.

Creps, R., Islem, S., Zeng, B., Boatman, A., & Castro Samayoa, A. (2025). **Tech Equity: a Survival Analysis of an Undergraduate Computer Science Supplemental Education Program**. *Innovative Higher Education*, *50*(4), 1315-1334. https://doi.org/10.1007/s10755-024-09779-5

This study examines the success of undergraduate students in computer science supplementary courses offered by a non-profit organization in partnership with colleges and universities across the U.S. Using a novel dataset from the nonprofit organization, we present one of the first descriptive overviews of students enrolled in supplemental computer science programs. Moreover, we conduct a survival analysis finding that racial and gender disparities in traditional computer science programs exist in these supplemental courses. However, the study finds that when supplemental courses are taken for credit, students are much more likely to complete the course, offering an important insight into program design and student motivation.

Gremion, C. (2025). **L'évaluation formatrice pour former dans l'incertitude. Le cas des photographes et des formateurs de formation professionnelle en Suisse**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146ws
Comment former des personnes qui devront faire apprendre des métiers qui n'existent pas encore ou des métiers qui ont subi, subissent et subiront des changements majeurs ? À la Haute école fédérale en formation professionnelle (HEFP), nous formons en alternance des formateurs pour une grande variété de métiers, tous en mutation dans le contexte actuel. Les besoins du terrain changent plus rapidement que les référentiels officiels. Aussi, pour pallier cela, nous les formons à l'utilisation d'un modèle de didactique (DPAS) qui se base sur la renégociation perpétuelle des référentiels métiers. Nous les formons à ce modèle, et nous les formons aussi avec celui-ci. Après avoir présenté la démarche en nous appuyant sur deux exemples, nous évoquerons ses effets sur la formation ainsi que les nouveaux défis qui se présentent.

Higgins, P. J., & Misawa, M. (2025). **A narrative inquiry on the experiences of refugee adult learners in community colleges in the southeastern region of the United States**. *International Journal of Qualitative Studies in Education*, *38*(7), 1030-1049. https://doi.org/10.1080/09518398.2025.2452630
In 2018, the U.S. Refugee Admissions Office reported that a total of 678,082 refugees were admitted into the country in the last 10 years and statistics show a steady increase of refugee admissions. The purpose of this narrative inquiry was to understand adult refugee students' experiences in higher education in the Southeastern U.S. The research questions that guide this study were: (1) What are the experiences of adult refugees in higher education in the United States? (2) In what ways do they access higher education? and (3) How do they navigate higher education in the U.S. context? By understanding the refugee experience, adult education practitioners and community members can better mediate the impact of marginalization of refugee adult learners.

Hirv-Biene, J., Tammets, K., Ley, T., & Wagner, M. (2025). **Enhancing Learning Transfer From Continuing Education to the Workplace Through an Actor-Oriented Approach: A Design-Based Research Study**. *International Journal of Training and Development*, *29*(3), 267-279. https://doi.org/10.1111/ijtd.12354
In academic continuing education, the transfer of learning from an academic setting to the workplace is critical. Current research on transfer of training has focused less on the situative determinants for such transfer, and how these are construed by the learner. We assume an actor-oriented perspective on transfer for investigating the individual pathways of what and how professional learners transfer between contexts. Using the lens of self-directed learning, the paper sheds light on the support useful in this process. We conducted a design-based research project, in which we created and implemented

a learning design for a continuing education course with a specific focus on learning transfer. We then interviewed a cohort of students on their transfer experience 8 months after the course to understand what the students were transferring, evaluate the support provided during the course and detect opportunities for further support. Results indicated that it was important to establish structures that bridge the academic and work contexts, and prompt reflection and interaction. We discuss the opportunities for further support, especially improving possibilities for personalised feedback.

Ibourk, A., & Elmakhloufi, K. (2025). **La mosquée au service des objectifs économiques des programmes d'alphabétisation des adultes au Maroc**. *International Review of Education*, *71*(4), 591-603. https://doi.org/10.1007/s11159-025-10135-8
The mosque at the service of the economic objectives of adult literacy programmes in Morocco – In Morocco, in addition to their religious missions, mosques play a role in adult education and training, thereby promoting the integration of adult learners. This article develops an economic index to assess this integration. It uses ad hoc data collected by monitoring a cohort of 351 learners over five and a half years. Promising results show significant progress in this area, with 18.87% of women achieving their economic goals. The study identifies three dimensions to this integration. The first is linked to the internal and external environmental context of the learning operation. The second is linked to the learners' socio-demographic and economic characteristics. The third is linked to the socio-demographic characteristics of the supervisors. This study is limited by the lack of assessment of the reading and writing skills of neo-literates. A target of sixty correct words per minute is recommended as an objective measure of these skills.

Ijassi, W., & Zwolinski, P. (2025). **Teaching environmental impact assessment for present and future engineers: Current and future trends**. *Procedia CIRP*, *135*, 450-455. https://doi.org/10.1016/j.procir.2024.12.048
Demand for environmental impact assessment skills among decision-making engineers has led to a considerable evolution of the pedagogical offer in universities and companies. The offered courses focus on providing trainees with the competencies required to evaluate the environmental footprint of a product or a service, and mitigate those accordingly. To understand the various trends of such teachings, and identify their main challenges, this paper investigates key courses and teaching approaches used among the engineering students of the Grenoble Alps University. To do so, a framework was developed where the IPAT equation was used as a basis to analyze three types of courses: contextual, methodological, and integrated. Findings from the analysis were discussed, leading to the proposal of five future trends, such as integration of relevant training stakeholders in the definition of the main pedagogical strategy, and the formalization of a framework for the testing of tools developed inside partner research institutes.

Košmerl, T. (2025). **The practice of non-formal adult education for sustainable development in Slovenia**. *International Review of Education*, *71*(4), 605-629. https://doi.org/10.1007/s11159-025-10134-9
The study presented here analysed practices of non-formal adult education for sustainable development (AESD) in Slovenia. It employed mixed methods and an explanatory sequential research design. The study also examined and compared the instrumental and emancipatory approaches to education for sustainable development: the former focuses primarily on changes in individuals' behaviours, while the latter

concentrates on changes in their ways of thinking. The results show that in the practice of non-formal AESD in Slovenia, the two approaches are intertwined, with a moderate prevalence of the instrumental one. The instrumental AESD practices identified by this study mostly involve producing environmentally friendly products, reducing waste, promoting sustainable food and fashion, improving fire safety, and supporting employment. The emancipatory AESD practices were mainly identified in connection with global issues and their local implications, the social causes of environmental crises, connections between individual and societal transformations, critical reflections on the United Nations Sustainable Development Goals (SDGs), and fostering active citizenship and collective action. The two approaches were also found to influence teaching methods. Teaching practices associated with the instrumental approach typically focus on developing specific skills or achieving individual change, while those associated with the emancipatory approach tend to be participatory and tailored to each group of learners. Slovenian non-formal AESD tends to be learner-centred, with learning topics personalised to the needs and interests of learners. The most common topics are the natural environment and the human relationship to it, sustainable lifestyles, the SDGs, and climate change. The article concludes with recommendations for the policy and practice of non-formal AESD in Slovenia.

Luik, P., & Požogina, K. (2025). **Unleashing Digital Transformation: How a Professional Development Program Can Lead to Change**. *European Journal of Education*, *60*(3), e70191. https://doi.org/10.1111/ejed.70191
Teachers' continuous professional development in the digital technology field is crucial, and different professional development programs are composed to meet this need. This paper gives an overview of one such program, named "Digital Accelerator", created in Estonia, and assesses whether it is effective in promoting teachers' use of digital technology and their beliefs towards it. A total of 59 participating teachers filled in pre- and post-questionnaires, and for data analysis, non-parametric tests were used. The results revealed that the use of digital technology in teaching and learning activities increased, and participating in educational technology mentoring was the most influential program activity. Also, it was evident that perceived ease of use and general attitudes towards digital technology had increased significantly. However, based on the results, we could conclude that giving the participating teachers in training too much power to choose the content is not the most useful approach.

Maehler, D. B., Hernández-Torrano, D., Courtney, M. G. R., Fischer, F. P., Hollricher, L. F., & Gorges, J. (2025). **PIAAC Survey of Adult Skills: A review of the research landscape**. *International Review of Education*, *71*(4), 685-714. https://doi.org/10.1007/s11159-024-10123-4
The Programme for the International Assessment of Adult Competencies (PIAAC) of the Organisation for Economic Co-operation and Development (OECD) has transformed international research and policy debates on the assessment of adult skills. Although research using PIAAC data is accumulating, little is known about how these data are used and what they contribute to developing the various disciplines interested in adult skills. In this study, a data-driven approach was used to examine PIAAC-based international research to date. Drawing on a comprehensive analysis of 880 publications, the review found that the field of PIAAC research is young and geographically diverse, with dominant contributions from the United States and Germany. While PIAAC research relies on a broad pool of researchers with high collaboration rates, only a quarter of

publications involve international collaboration. The analyses also revealed that the development of the field is based on four interrelated disciplines (education, sociology, psychology and economics) and three differentiated historical paths: theoretical and methodological approaches to the measurement of adult skills, cognitive skills and problem solving in technology-rich environments at the workplace, and the role of adult literacy skills for societal and economic development. Moreover, the PIAAC literature addresses a broad range of topics, including cognitive, non-cognitive and basic skills (e.g. literacy and numeracy), human capital, occupational mismatch, migration, "returns to skills", informal learning and large-scale assessment methodologies. Implications for further development of PIAAC research for users of PIAAC data, data-providing institutions and policymakers are discussed.

Magadza & Mampane. (2025). **Experiences of Adult Educators in Selecting Appropriate Teaching Methods in Engineering Courses at TVET Colleges in Mpumalanga Province, South Africa**. *Community College Journal of Research and Practice*, *49*(8), 545-556. https://doi.org/10.1080/10668926.2024.2330070
This study's sought to identify and fix problems with teaching strategies used in engineering courses at a TVET college in South Africa's Mpumalanga area. A Phenomenological, explorative, and descriptive research approach was used to capture the experiences of educators in choosing effective teaching approaches. Convenience sampling was employed to select 10 educators who participated in two Focus Group Discussions in an endeavor to collect qualitative data. These discussions were conducted through the lenses of Albert Bandura's social learning theory. Two audio recorders were used to capture the debates, thereafter verbatim transcribed. A computerized software called NVivo was used to do content analysis and theme analysis on the gathered data into manageable themes and sub-themes. Subsequently, the findings revealed the following five themes: preferred teaching methods, the effectiveness of teaching methods, the relationship between teaching methods and pass rate, assessing teaching and learning outcomes, and factors influencing adult learners' performance: however, by the scope of this article only three were discussed in the forthcoming paragraphs. These themes demonstrated that some engineering educators struggle to choose the best teaching strategies which meet industrial skills requirement. Thus, the authors advise industry and TVET colleges to work together so that educators can teach adults the essential engineering skills.

Mikulec, B., & Kristl, N. (2025). **The impact of the Erasmus+ programme on adult education in Slovenia**. *International Review of Education*, *71*(4), 631-654. https://doi.org/10.1007/s11159-025-10138-5
The adoption of the Lisbon Strategy in 2000 marked the beginning of a European (adult) education policy defined by common goals, implementation tools and financial resources. Adult education (AE) policy is exercised in the form of "soft law" and supported by various governance mechanisms and policy instruments, such as funding schemes. The study reported on in this article examined the impact of the Erasmus+ programme on the AE system, its organisations, and the professional development of educators and learners participating in mobility exchanges in Slovenia. The study drew on research into European governance in AE. It also used mixed methods to explore the impact of Erasmus+ on AE in Slovenia at micro, meso and macro levels. Quantitative data were collected through a survey completed by 51 AE organisations. Qualitative data were gathered through document analysis of AE policies, five focus group discussions

with 23 participants from selected AE organisations, three focus group discussions with 12 adult learners, and four individual interviews with decision makers and project coordinators. The findings point to the important role of Erasmus+ in the professional development of organisations, educators and learners engaged in non-vocational AE, and in supporting social goals and counterbalancing the dominant vocational orientation of European AE policy.

Noreen, S., & Iqbal, Z. (2025). **Effectiveness of the social practice approach: Enhancing the application of basic literacy in daily life among adult learners**. *International Review of Education*, *71*(4), 561-589. https://doi.org/10.1007/s11159-025-10129-6
Literacy is widely acknowledged as a necessary 21st-century skill, particularly for adult learners. However, continued low academic achievement among adult basic literacy learners remains a global concern. This study aimed to address the challenge of limited application of literacy in daily life among adult learners by examining the effectiveness of a social practice approach (SPA) in basic literacy programmes. Two adult literacy centres in a metropolitan city in Pakistan were selected for a four-month literacy intervention, with experimental and control groups (each with 35 female learners). The mixed-methods research design included a pre- and post-test worksheet based on social context and everyday life tasks, followed by a literacy intervention for the experimental group and traditional instruction for the control group, and concluding with semi-structured interviews with 10 learners from the experimental group to gain deeper insights. Quantitative data were analysed using independent sample t-tests, while qualitative data underwent thematic analysis. Results indicated significant improvements in knowledge, comprehension and application among the experimental group compared to the control group. Learners in the experimental group attributed their enhanced academic achievement to everyday life-related, interactive, engaging literacy activities and consistent practice of learned skills both in the classroom and in daily life. Based on their findings, the authors recommend conducting a needs assessment to align literacy content with identified social needs; providing context-based training for teachers, especially in lesson planning; allocating adequate resources; providing multiple literacy skills under one roof; and implementing feedback mechanisms for continuous improvement in adult basic literacy programmes.

Nurlaela, N., Irfan, A. M., Rahman, M. H., Putra, K. P., Mahmud, A., & Setialaksana, W. (2025). **Understanding AR/VR Adoption through heutagogy and cybergogy: Insights from the UTAUT2 model in vocational education**. *Education and Information Technologies*, *30*(12), 17111-17132. https://doi.org/10.1007/s10639-025-13465-0
Integrating advanced technologies like Virtual Reality (VR) and Augmented Reality (AR) in educational settings can significantly enhance learning, especially in vocational education, where practical application is crucial. However, understanding the factors influencing student acceptance of these technologies remains challenging. This study examines how Heutagogical and Cybergogical Behaviors affect vocational high school students' intentions to use AR and VR in classrooms, with Virtual Experience as a mediator. By extending the UTAUT2 model, the research offers insights into technology adoption in vocational education. Conducted in July 2024 with 438 students from six Indonesian regencies, the study used a quantitative, non-experimental design. PLS-SEM analysis revealed that Heutagogical and Cybergogical activities significantly influenced students' performance and effort expectancy, increasing their intention to use AR and VR. Virtual Experience fully mediated the effects of performance expectancy, hedonic

motivation, social influence, and price value on students' intentions. However, effort expectancy and facilitating conditions directly impacted behavioral intentions, underscoring the importance of ease of use and support in adopting these technologies. The findings suggest that integrating structured and self-directed learning approaches, providing immersive hands-on opportunities with AR/VR tools, and ensuring ease of use and strong institutional support can enhance technology adoption. These strategies align vocational training with industry demands, preparing students for technologically driven workplaces.

Oduori, D. O., Kirui, G., & Serem, K. E. (2025). **Adoption of online/blended learning approach in the delivery of animal welfare training for animal health professionals training in Africa**. *Education and Information Technologies*, *30*(11), 15399-15412. https://doi.org/10.1007/s10639-024-13245-2
This study explores the adoption of online/blended learning approach in the delivery of animal welfare training among learners in animal health/science courses in Africa. Kenyan institutions approved to offer Animal Health training in 2020 by the Kenya Veterinary Board (18 institutions) were selected, in addition to select institutions in Gambia, Liberia, Malawi, Rwanda, Uganda and Tanzania. Online Survey were used to obtain information on the learning environment and institutional resources. Information on the learners' perception on online/blended learning approach in animal welfare training was obtained. Eighty three precent (83%) of the participants supported the suitability of animal welfare training via online/blended learning (n = 517) with most of them agreeing that content coverage was at least above average, 49.6% (n = 508). Despite a general positive acceptance of the approach, only 52.5% had access to an internet-capable device, 36.2% had access to the timely availability of recordings/teaching notes and 26.2%, had access to reliable internet connectivity (n = 516). Pedagogical tools students had interacted with the most, and had the highest preference for in descending order were videos, photos and case reports. Online/blended learning has been largely accepted by learners undertaking animal health-related courses in Africa. It offered an opportunity for the continuity of learning when traditional classroom sessions were restricted during COVID-19 pandemic. Training institutions nonetheless are yet to fully support this approach. Learner sponsors should therefore support remote-learning by facilitating access to devices and a conducive environment.

OECD. (2025). ***What's Missing in Adult Learning and How Do We Fix It?*** (N° 14; p. 9). Consulté à l'adresse https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/07/what-s-missing-in-adult-learning-and-how-do-we-fix-it_bbfe99ab/58b9acfd-en.pdf?adestraproject=OECD%20Education%20and%20Skills%20Newsletter&utm_campaign=OECD%20Education%20and%20Skills%20Newsletter%3A%20July%202025&utm_content=Read%20the%20report&utm_term=edu&utm_medium=email&utm_source=Adestra

Özgenel, M., Brown, M., O'hara, J., & Özkan, M. (2025). **What Can We Learn From Cross-Cultural Comparisons of Professional Development? Professional Development Ecosystems in Ireland and Turkey**. *European Journal of Education*, *60*(3), e70158. https://doi.org/10.1111/ejed.70158

This comparative study explores the professional development (PD) landscapes of educators in Ireland and Turkey, exploring their respective needs, expectations, challenges and levels of satisfaction with the PD that is available. Employing a qualitative approach, semi-structured interviews were conducted with a diverse cohort of teachers in both countries. The findings reveal a universal appreciation for PD among educators, yet notable divergences emerge in delivery methods, cultural perceptions and systemic support structures. Irish teachers benefit from a decentralised framework, affording them autonomy in selecting PD activities, whereas their Turkish counterparts operate within a more centralised, government-directed system. Shared obstacles include time constraints, limited resources and the desire for increased collaborative opportunities. These insights highlight the impact of cultural and systemic factors on PD practices and suggest that embracing flexible, teacher-centred approaches could enhance the efficacy of PD on a global scale.

Perla, L., Agrati, L. S., Vinci, V., & Amati, I. (2025). **Prevent the Refugee Students' Marginalisation. A Practitioner Research Study on Case-Based Method**. *European Journal of Education*, *60*(3), e70148. https://doi.org/10.1111/ejed.70148
This work focuses on the teacher training case-based for preventing the refugee students' marginalisation. Some key-elements in prevention of marginalisation in school are presented in the first part: the holistic descriptive model and the difficulty in resorting to practical-based strategies for teachers training. A professional research study conducted in 2023 at the post-graduate training course is presented in the second part. The study involved 110 teachers and investigated the effectiveness of case-based training, specifically, how much it favours teachers' ability to grasp the multilevel factors useful for avoiding the marginalisation of refugee students. The results provide arguments in favour of case-based teacher training in classroom reception. The case-based method could help teachers to understand the complexity of the integration processes of refugee students within the classroom and to take on the necessary multilevel perspective. The analysis also reveals the prevalence of the student-teacher relational level.

Shang, S., Yi, T., & Lyv, W. (2025). **Effects of learners' course network characteristics on continuous online learning: moderation roles of social learning and social exposure**. *Asia Pacific Education Review*, *26*(3), 733-748. https://doi.org/10.1007/s12564-024-09975-0
Promoting continuous learning behavior is a key challenge for online learning. The present paper empirically examines the effects of course network characteristics including course network size, course network diversity, and course strong ties on continuance behavior, considering the moderating impacts of social learning and social exposure. Ordinary least squares regression is employed to validate the effects, using a data set of 2190 users and information on 65,080 courses that was collected from the Chinese University MOOC, which is the largest MOOC platform in China. The results show that those who registered for smaller course size, greater network diversity, and stronger ties between courses are more likely to engage in continuous learning in MOOCs. Further, social learning weakens and social exposure strengthens the positive relationship between course network diversity and continuance behavior. And the negative impact of course network size on continuance behavior is alleviated by social exposure. This research provides a deep understanding of continuance behavior in MOOCs and guidelines for reducing the high dropout rate in online learning.

Trusz, S., Fabiś, A., Berek, T., Kempa, S., Zaremba-Żółtek, B., Sitko, A., … Dendek, K. (2025). **The Structure of Seniors' Needs and Their Level of Fulfillment at Universities of the Third Age in Poland**. *European Journal of Education*, *60*(3), e70219. https://doi.org/10.1111/ejed.70219
Universities of the Third Age (U3As) play an important role in the system of non-formal lifelong education. Through offered programmes, participants meet various personal and social needs, thereby enhancing their quality of life. This study examined the applicability of a multidimensional inventory developed by the authors to assess the needs of seniors addressed in U3A classes. The tool, created using an inductive–deductive approach, identifies six types of needs. Based on responses from 486 students attending 17 U3As in southwestern Poland, the results revealed that social and cognitive needs were the most satisfied, followed by self-development, adaptation, health, and autonomy. The extent to which these needs were met was significantly associated with age, place of residence, and professional activity, but not with gender, education level, or seniors' marital status. The findings are discussed in the context of social science literature, with practical implications emphasised.

van Ommeren, R., & Kjelaas, I. (2025). **Native-speakerism in the Norwegian subject teacher training program**. *Language Policy*, *24*(3), 499-524. https://doi.org/10.1007/s10993-025-09734-w
In this article, we examine the language policy that underlies the training of Norwegian teachers in Norwegian primary and lower secondary schools. Based on a critically oriented document analysis of current policy documents, we consider (1) the language competence required to work as a Norwegian teacher, and (2) what can be inferred from the required language competence about the principles for the recruitment and training of Norwegian teachers. We interpret our findings as an expression of an underlying ideology of native-speakerism in Norwegian teacher training: both in principle and in practice, multilingual students with a different language proficiency profile than representatives of the majority population are in effect sidelined. We argue that a lack of diversity in teacher education due to this language policy has negative implications for the individual minority language student, for the Norwegian subject both in teacher education and in Norwegian schools, and—ultimately—for the society that teacher education is meant to serve. The model described privileges the majority's language competencies, thereby contributing to linguistic hierarchization and—not least—the reproduction of a native-speakerist language ideology that contradicts key principles and directions in the current school curriculum.

Zhou, J., & Wong, J. L. N. (2025). **Student teacher learning in school-university partnerships: A systematic review**. *International Journal of Educational Research*, *133*, 102692. https://doi.org/10.1016/j.ijer.2025.102692
School-university partnerships provide essential environments in which student teachers (STs) learn to teach. Despite the increasing number of studies conducted within the partnership contexts, the impact of partnership practices on STs' learning processes or outcomes has not been examined in a systemic way. Drawing on growing empirical evidence, this systematic review synthesized findings from 67 articles published in peer-reviewed journals between 2011 and 2024. We found that three interconnected levels of partnership interventions – the program & partnership level, the curriculum & pedagogy level, the activity & tool level – were simultaneously applied by teacher educators in the selected studies; we also identified changes in STs' dispositions and beliefs (knowing why),

knowledges and understandings (knowing what), and performances and skills (knowing how). Based on the findings, a framework for understanding STs' learning in partnership contexts is further delineated, with implications for policymakers, practitioners, and researchers.

Marché du travail

Bock, C. (2025). **Analyse longitudinale d'un marché chaotique : le cas toulousain des formations dans l'animation socioculturelle entre 2019 et 2024**. *Tréma*, (63). https://doi.org/10.4000/13r5a
En 2019, les acteur·ices toulousain·es de la formation d'animateur·ice socioculturel·le évoluaient dans un marché chaotique. En effet, les interactions entre les organismes révélaient de fortes tensions et une concurrence importante. La fusion des Régions, les appels d'offres pour l'organisation des formations ainsi que l'entrée de nouveaux·lles acteur·ices sur le marché bousculent l'équilibre, déjà bancal, du marché local. Cinq ans plus tard, qu'en est-il de ce marché chaotique ? La main invisible l'aurait-elle régulé ? L'État aurait-il joué son rôle dans l'organisation de la formation ? Est-il toujours aussi chaotique ? Cet article propose de réinterroger le cas toulousain à partir de trois niveaux d'analyse : 1) les forces agissantes sur le marché, 2) la composition des acteur·ices et 3) leurs stratégies.

Clouet, H., & Pillon, J.-M. (2022). **Du menaçant à l'irrésistible:La gouvernementalité d'appariement dans le service public de l'emploi (1816-2016)**. *Travail et emploi*, *168*(1), 57-85. Consulté à l'adresse https://shs.cairn.info/revue-travail-et-emploi-2025-2-page-57

Dessein, S., & Perez, C. (2022). **Inciter à former les salariés en chômage partiel : Les enseignements de la crise sanitaire**. *Travail et emploi*, *168*(1), 5-30. Consulté à l'adresse https://shs.cairn.info/revue-travail-et-emploi-2025-2-page-5
Depuis le début de la crise du Covid-19 en mars 2020, l'État français a encouragé tant la mobilisation du chômage partiel (dénommé également activité partielle depuis 2013) que la possibilité, pour les entreprises, de former leurs salariés pendant les périodes chômées. L'objectif est de soutenir les entreprises dans le maintien des compétences de leurs salariés et de les accompagner dans les changements organisationnels occasionnés par la pandémie. Pour cela, il s'est principalement appuyé sur un instrument financier, le FNE-Formation, dont les modalités de gestion et de fonctionnement ont été totalement renouvelées. Déployé par les opérateurs de compétences, ce dispositif permet notamment de prendre en charge la totalité du coût pédagogique des formations suivies pendant le chômage partiel. Cela a-t-il permis, dans quelle mesure et pour qui, l'articulation effective du chômage partiel et de la formation ? Quelles sont les formations financées dans ce cadre ? Fondé pour l'essentiel sur la réalisation, en 2021, de près de quarante entretiens à différents niveaux (national, régional, branche, entreprise), cet article cherche à éclairer l'articulation chômage partiel/formation pendant la crise sanitaire.

Geißler, T. (2025). **What an (Un) Favorable Match: Public Sector Employment and the Reversal of the Overeducation-Job Satisfaction Penalty**. *Journal of Happiness Studies*, 26(6), 94. https://doi.org/10.1007/s10902-025-00926-z

It is a well-documented phenomenon that individuals with higher education than required for their job report lower job satisfaction. However, whether this also applies to public sector employees remains unclear. The German case reveals a negative relationship between overeducation and job satisfaction in the private sector, which is reversed to positive for public sector employees. This holds robust across various empirical alterations. Furthermore, it is revealed that individuals with altruistic motives and a stronger-than-average family orientation drive this positive relationship.

Mooi-Reci, I., & Liao, T. F. (2025). **Unemployment: a hidden source of wage inequality?** *European Sociological Review*, *41*(3), 382-394. https://doi.org/10.1093/esr/jcae029
Although unemployment plays a central role in the emergence of labour market disparities, rarely any studies have linked its dynamics with the overall level of wage inequality. This study addresses this gap by assessing how unemployment is associated with both between- and within-group wage disparities. Hypotheses derived from labour market theories are tested using comprehensive longitudinal data from the Dutch OSA Labour Supply Panel spanning 1985–2008. Results from newly developed variance function panel regression models demonstrate that wages of previously unemployed workers are both lower and more dispersed compared to the wages of continuously employed workers. We also found that wage disparities were more pronounced among previously unemployed men than women. The results also demonstrate the usefulness of the variance function panel regression as a method for analyzing sources that drive wage inequality within persons and over time.

Mouchabac, S., Adrien, V., Diot, T., Renaud, M.-C., Carrié, A., Bourla, A., & Ferreri, F. (2024). **Insights into medical students' perceptions of work culture during the COVID-19 pandemic: a mixed method study**. *BMC Medical Education*, *24*(1), 21. https://doi.org/10.1186/s12909-023-04936-4
Background The COVID-19 pandemic brought about profound social changes that affected students worldwide. These changes had both psychological and economic consequences, and also led to the adoption of new teaching methods. It can also have an impact on work culture, which is the collective set of values, norms, and practices within a specific profession, shaping how individuals in that field behave, communicate, and identify with their work. The aim of the study was to examine medical students' perception of professional culture during the COVID-19 crisis when they voluntarily participated in the healthcare network established, outside of university placements, for the management of COVID patients. Methods A questionnaire study based on the vignette methodology was conducted among third-year medical students. Drawing from three scenarios in which students were variably engaged in crisis management, it included questions about their perceptions of the medical profession, their motivation, and their sense of belonging to the profession. Results 352 students responded to the survey. The pandemic had both a positive and a negative impact on students' perceptions of the medical profession. Cluster analysis using a k -means algorithm and principal component analysis revealed three clusters of students with different perceptions of the medical profession. The first cluster, which represented the majority of students, corresponded to a relatively positive perception of the profession that was reinforced during the pandemic. In the second cluster, students' perceptions were reinforced still further, and particular importance was attached to field experience. Students in the third cluster had the most negative perceptions, having been shaken the most by the pandemic, and they attached little importance to field experience.

Conclusions The analysis highlighted the importance of students being able to adapt and draw on a range of resources during the COVID-19 pandemic. This underscores the need for work cultures that support adaptability and coping. Further research is needed to understand its long-term effects on students' perceptions of the medical profession and to identify interventions that could support students in the aftermath of this difficult period.

Nocenti, B. (2022). **Les formes d'organisation du travail dans les administrations publiques : Quelle managérialisation de l'État, des hôpitaux et des collectivités locales ?** *Travail et emploi*, *168*(1), 87-114. Consulté à l'adresse https://shs.cairn.info/revue-travail-et-emploi-2025-2-page-87
Comment mesurer la diffusion des modèles organisationnels issus du « nouveau management » dans l'État, les hôpitaux et les collectivités locales ? Cet article mobilise les enquêtes Conditions de travail 2005 à 2019 pour étendre aux administrations publiques les travaux statistiques portant sur les formes d'organisation du travail, habituellement réservés aux entreprises. L'analyse empirique en distingue cinq : l'autonomie du métier, l'autonomie évaluée, le contrôle direct, le lean management et le taylorisme flexible. Les professions organisées du public connaissent une érosion de leur autonomie collective sous l'effet de la diffusion des instruments d'évaluation formalisée tout en demeurant dans des organisations très qualifiantes. Les cadres de l'État et des établissements de santé adoptent largement le modèle du management par objectifs. Les agent·es subalternes des ministères et des hôpitaux publics voient se développer des organisations néotayloriennes très contraignantes. Il apparaît ainsi que les enjeux de la diffusion des techniques de gestion issues des grandes entreprises sont très différents selon la position des agent·es dans les hiérarchies administratives, du fait d'une répartition inégale des marges de manœuvre et des contraintes managériales.

Reljic, J., Evangelista, R., & Pianta, M. (2025). **Digital technologies, employment, and skills**. *Industrial and Corporate Change*, *34*(3), 385-406. https://doi.org/10.1093/icc/dtab059
This article investigates the relationship between the diffusion of digital technologies, employment, and skills. The empirical analysis is carried out on industry-level data of six major European economies (Germany, France, Spain, Italy, the Netherlands, and the UK) over the 2009–2014 period. We analyze two dimensions of digitalization: industries' consumption of intermediate inputs from digitally intensive sectors and investment in Information and Communication Technology (ICT) tangible and intangible assets, considering also patterns of demand, education, technological change, and offshoring. The results show that job creation in industries is positively associated with an increasing share of digital goods and services in total intermediate inputs and is negatively linked with processes of ICT capital deepening. We then explore how these two different patterns of digitalization are related to the evolution of four occupational groups—managers, clerks, craft, and Manual workers, defined on the basis of International Standard Classification of Occupations classes—finding a positive link between ICT consumption and managerial jobs, and negative ones between digital variables and mid-skill occupations.

Semenowicz, P., Fretel, A., Jany-Catrice, F., & Vatan, S. (2022). **Territoires zéro chômeur de longue durée : Rupture ou convergence avec l'insertion par l'activité économique ?** *Travail et emploi*, *168*(1), 31-55. Consulté à l'adresse https://shs.cairn.info/revue-travail-et-emploi-2025-2-page-31

L'expérimentation territoires zéro chômeur de longue durée (TZC) a été introduite dans le débat public comme un « nouveau modèle » de lutte contre le chômage de longue durée. Pourtant, le projet présente dès l'origine des similitudes avec les dispositifs de l'insertion par l'activité économique (IAE). Dans quelle mesure TZC constitue-t-il une rupture avec l'IAE ? Sur la base d'une enquête de terrain menée durant trois ans sur l'un des territoires ayant expérimenté TZC, complétée par une série d'entretiens semi-directifs auprès d'acteurs nationaux du projet, nous abordons cette question sous l'angle d'une comparaison de leurs modèles socioéconomiques respectifs. Nous mettons en évidence combien l'ambition originelle du projet le positionne à distance des évolutions de l'IAE. Pour autant, l'opérationnalisation de l'expérimentation produit des formes de convergence avec cette dernière.

Trespeuch, M., Verley, É., & Tenret, É. (2025). **L'individualisation de la relation d'emploi à l'heure numérique : le cas des étudiant·es sur les plateformes affinitaires**. *Agora débats/jeunesses*, *100*(2), 67-84. https://doi.org/10.3917/agora.100.0067
À partir de l'exploitation des données d'une enquête mixte, cet article interroge les usages que font les étudiant·es des plateformes affinitaires pour trouver un travail pendant leurs études. Il montre que ces plateformes contribuent à l'individualisation de la relation d'emploi, à plusieurs titres. D'un côté, elles nécessitent un travail invisible de marketing de soi et d'appropriation de l'algorithme de la part des étudiant·es ; de l'autre, elles permettent un « choix », plus ou moins libre de l'employeur de la part des étudiant·es, ainsi qu'une gestion interindividuelle de la relation d'emploi. Cette individualisation, liée aux métiers de services à la personne surreprésentés sur ce type de plateformes, attire un public plus féminisé et plus favorisé, avec une liberté de choix qui dépend fortement des caractéristiques sociales des étudiant·es, dessinant sur internet un marché des jobs à deux vitesses.

Métiers de l'éducation

Algabre, L. C. R., & Baguio, J. B. (2025). **Fruitfulness in the Workplace and Readiness Services of Teachers in Public Elementary Schools**. *Asian Journal of Education and Social Studies*, *51*(7), 210-219. https://doi.org/10.9734/ajess/2025/v51i72115
This study was conducted in response to the growing need to understand how preparatory support mechanisms influence the performance and overall productivity of teachers in public elementary schools. Recognizing that both institutional readiness services and individual teacher fruitfulness contribute to the success of educational delivery, the study aimed to determine the significant relationship between fruitfulness in the workplace and readiness services of teachers in public elementary schools in Babak District, Division of Island Garden City of Samal. A descriptive-correlational research design was employed, with a sample of 132 public elementary school teachers selected through universal sampling. Standardized questionnaires were used to collect data, which were analyzed using mean and Pearson product-moment correlation. The results showed that readiness services (mean = 4.32) and fruitfulness in the workplace (mean = 4.25) were both rated as high. Furthermore, a significant positive relationship between the two variables was found. Based on these findings, it is recommended that schools strengthen readiness programs that enhance teacher preparedness and capacity-building efforts. Additionally, school administrators are encouraged to cultivate a more

supportive and conducive work environment that promotes teacher productivity and positively impacts student learning outcomes.

Ali, C., Cameron, E., Gutierrez Bernal, M., Shojo, M., Tognatta, N. R., Rahman, Md. S., & Ansari, A. (2024). ***A Comparative Analysis of Contract and Government Teachers in Sierra Leone : Profiles and Practices*** (Working Paper N° 203153; p. 1-25). Consulté à l'adresse World Bank Group website: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099603007152528274
This study examines the dynamics and implications of using contract teachers in developing countries, with a specific focus on Sierra Leone. Despite the rapid rise in the .

Arslan, Y., Gordon, R., & Tolmie, A. (2025). **Predictors of Teachers' Knowledge of Educational Neuroscience: A Role for Formal Training**. *Mind, Brain, and Education*, *19*(3), 140-154. https://doi.org/10.1111/mbe.70010
Understanding factors which might influence teachers' knowledge of educational neuroscience is essential for designing effective initial training and professional development programmes. This study assessed teachers' knowledge using our novel Educational Neuroscience Knowledge Test (ENKT). The validated ENKT provided a structured measure of teachers' understanding of educational neuroscience, distinguishing between knowledge of general cognitive functions and special educational needs. Test results allowed for an evaluation of teachers' familiarity with evidence-based concepts in both areas. Findings indicated that formal educational neuroscience training was associated with significantly higher knowledge scores than exposure through continuing professional development (CPD) or informal sources. Implications for teacher training programs and CPD include the need for structured, formal educational neuroscience training to improve teachers' knowledge of this field and better support evidence-informed teaching practices.

Baguio, C. V., & Baguio, J. B. (2025). **Approaches for Developing Instructional Resources and Relational Domains of Teachers in Public Secondary Schools**. *Asian Journal of Education and Social Studies*, *51*(6), 1451-1461. https://doi.org/10.9734/ajess/2025/v51i62088
This study was conducted to determine the approaches for developing instructional resources and the relational domains of teachers in public secondary schools in the Paquibato District, Division of Davao City. A non-experimental quantitative research design utilizing the correlational method was employed. The respondents of the study were 131 teachers, selected through universal sampling. Both descriptive and inferential statistical tools were used to analyze the data. Descriptive statistics, specifically the mean, were used to determine the levels of the variables. Inferential statistics included the Pearson Product-Moment Correlation Coefficient (Pearson r) to examine the relationship between variables, and Regression Analysis to determine the influence of the approaches for developing instructional resources on the relational domains of teachers. The results revealed that the levels of both the approaches for developing instructional resources and the relational domains of teachers were high. A significant relationship was found between the approaches for developing instructional resources and the relational domains of teachers in public secondary schools ($r = 0.820$; p-value = 0.000). Furthermore, the domains of approaches for developing instructional resources significantly influenced the relational domains of teachers ($r = 0.850$; p-value = 0.000). It is

recommended that school administrators provide continuous professional development programs focusing on innovative strategies for developing instructional resources. Additionally, teachers may encorage to collaborate and share best practices to strengthen their relational domains.

Barbey, F. (2025). **Éducation aux médias : la formation des formateurs en Côte d'Ivoire. Une approche originale de l'Université catholique de l'Afrique de l'Ouest en contexte sociopolitique instable**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wi
En Côte d'Ivoire, le positionnement idéologique des médias ainsi que les nouvelles pratiques médiatiques des jeunes, avec le développement du numérique et des réseaux sociaux, suscitent à la fois des interrogations sur les systèmes traditionnels de transmission et une peur sociale, dans un contexte d'instabilité sociopolitique. L'expérience de la formation des formateurs en éducation aux médias de l'Université catholique de l'Afrique de l'Ouest (UCAO) est une offre originale capable de soutenir les politiques publiques, afin de transformer les éléments d'incertitude en chemin d'espérance pour la reconstruction du lien social et le vivre-ensemble.

Benet Rivière, J. (2025). **Connaissez-vous les professeurs d'éducation socioculturelle ?** *Les Cahiers Pédagogiques*. Consulté à l'adresse https://hal.science/hal-04926798
L'article s'intéresse au rôle souvent méconnu des professeurs d'éducation socioculturelle (ESC) dans les lycées agricoles français. Apparue dans les années 1960, cette discipline vise à développer chez les élèves des pratiques artistiques, une ouverture d'esprit et un esprit critique, notamment via l'animation socioculturelle, l'art et la communication. Le recrutement des enseignants se fait sur la base d'expériences en médiation culturelle et animation, renforçant un lien entre cette discipline et l'éducation populaire. Les professeurs ESC partagent leur temps entre enseignement, animation de la vie associative et projets artistiques en partenariat avec le territoire. L'enseignement s'est « professionnalisé », intégrant des « compétences » en animation et communication inscrites dans les référentiels pour les métiers du social, de la nature ou du soin. L'éducation socioculturelle participe aussi à la réflexion sur l'agroécologie en menant des actions innovantes pour relier arts, écologie et territoire. Malgré leur implication, les enseignants regrettent une marginalisation institutionnelle de leur discipline, accentuée par des coupes budgétaires.

Berkovich, I. (2025). **Principal's negative emotional manipulations, interpersonal suppression of teachers by the principal, and trust in the principal**. *International Journal of Educational Research*, *133*, 102738. https://doi.org/10.1016/j.ijer.2025.102738
This study investigated the effect of principals' negative emotional manipulations on teachers' affective and cognitive trust in the principal, focusing on the mediating role of interpersonal suppression. Data were collected from 654 public elementary school teachers in Israel. Using a multilevel mediation model analysis, the study examined the existence of mediated indirect links in two models: one predicting affective trust and the other predicting cognitive trust. The findings indicate that principals' negative emotional manipulation significantly reduced both affective and cognitive trust in the principal, with interpersonal suppression of teachers by principals fully mediating these relationships. These results reveal the effect of interpersonal suppression in shaping emotional and cognitive attitudes in the workplace. The size of the indirect effect was slightly larger for affective than for cognitive trust, suggesting that interpersonal suppression plays a more

significant role in emotional processes. The research expands the relatively scarce knowledge on principals' negative emotional manipulations and interpersonal suppression in workplace research in general and schools in particular.

Binongo, M. A., & Baguio, J. B. (2025). **Workstation Culture and Professional Accountability of Public Elementary School Teachers**. *Asian Journal of Education and Social Studies*, *51*(7), 106-116. https://doi.org/10.9734/ajess/2025/v51i72106
This study aimed to investigate the workstation culture and professional accountability of public elementary school teachers in Dujali Districts, Division of Davao Del Norte. This utilized the non-experimental quantitative research design employing correlational method leading to regression analysis. The respondents of this were composed of 137 teachers of public secondary school teachers using the universal sampling. The statistical tools was used were the Mean, Pearson Product Moment Coefficient Correlation or (Pearson r) and Regression Analysis. The workstation culture and professional accountability in public elementary school is high and manifested oftentimes by the teachers. There was a significant relationship of workstation culture and professional accountability of public secondary school teachers (p=0.000). The domains of workstation culture was significantly influence to professional accountability of public elementary school teachers (p=0.000). The result of this study may serve as basis for the guide of the Department of Education in evaluating the school improvement to enhance the present workstation culture and professional accountability of public school teachers to protect the students from failure, removing all temptations and distractions from their environment and requiring the students to read written feedback responses.

Blas, R. L., & Baguio, J. B. (2025). **Intellectually Inspiring Environment and Adoring Leadership Qualities of Teachers in Public Elementary Schools**. *Asian Journal of Education and Social Studies*, *51*(7), 142-153. https://doi.org/10.9734/ajess/2025/v51i72109
This study aimed to determine the intellectually inspiring environment and adoring leadership qualities of teachers in public elementary schools in Manay District, Division of Davao Oriental. Utilizing a non-experimental quantitative research design with a correlational method leading to regression analysis, the study involved 131 public elementary school teachers. Statistical tools used included the Weighted Mean, Pearson Product-Moment Correlation Coefficient (Pearson r), and Regression Analysis. Results showed that the intellectually inspiring environment (M = 3.69) and adoring leadership qualities (M = 3.53) were both rated high and oftentimes observed. A significant relationship was found between the intellectually inspiring environment and the adoring leadership qualities of teachers. Regression analysis further revealed that the domains of intellectually inspiring environment significantly influenced adoring leadership qualities. Therefore, the null hypothesis (HO) was rejected. These findings may serve as a foundation for school administrators in developing programs and policies that promote intellectually engaging environments and supportive leadership practices, ultimately enhancing teacher performance and school effectiveness. This study can guide future research and policy development in education.

Cameron, Emma, Gutierrez Bernal, M., Shoko, M., Tognatta, N., Rahman, Md. S., Ansari, A., & Chowdhury, A. (2024). ***Sierra Leone - Data-Driven Approach to Teacher Deployment*** [Text/HTML]. Consulté à l'adresse World Bank Group website: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099452307142536307

Sierra Leone - Data-Driven Approach to Teacher Deployment (English)

Chen, C., & Yin, H. (2025). **Investigating the relationship between instructional leadership and teacher well-being: A moderated mediation analysis of PISA 2022**. *International Journal of Educational Research*, *133*, 102699. https://doi.org/10.1016/j.ijer.2025.102699
Guided by the job demands-resources model, a moderated mediation analysis was conducted to explore the relationship between teachers' perceived instructional leadership and well-being, with teachers' workload stress as the mediator and autonomy support as the moderator, using data from 46,563 secondary school teachers in the PISA 2022 survey. The results revealed that instructional leadership significantly positively predicted teacher well-being across 15 participating countries and regions, and this relationship was partially mediated by teachers' workload stress. Perceived autonomy support was found to moderate the detrimental effect of workload stress on teacher well-being. The implications of these findings are discussed.

Ci, F., Yang, S., & Yin, H. (2025). **Unravelling the Interplay of Pre-Service Language Teachers' Emotions and Professional Identities: A Dynamic Systems Model of Role Identity Perspective**. *European Journal of Education*, *60*(3), e70196. https://doi.org/10.1111/ejed.70196
Previous studies have given limited attention to the emotional and identity changes of pre-service language teachers in education taught master (ETM) programmes. To fill this gap, this study explores the emotional changes of seven pre-service language teachers undergoing professional training in an ETM programme. Following the Dynamic Systems Model of Role Identity (DSMRI), we conducted semi-structured interviews, collected complementary reflection and employed thematic analysis to analyse the data. The results showed three identity development trajectories, namely, active practitioner, negative abandoner and uncertain hesitator. These identity trajectories were influenced by emotional factors and contextual factors (i.e., family, professional development programme and perceived social status) involved in the emotion–identity interplay. The findings enriched the understanding of emotions and identity changes among pre-service language teachers and refined the context dimension of the DSMRI. Additionally, it offers teacher educators and researchers valuable insights into developing the desirable emotions and identities of pre-service language teachers.

Cuenca Vivanco, C., & Rojas, M. T. (2025). **Social Justice Teacher Education in Latin America for a Post-COVID-19 World: A Systematic Review**. *Social Justice Research*, *38*(3), 376-405. https://doi.org/10.1007/s11211-025-00457-1
Social Justice Teacher Education (SJTE) prepares teachers to confront issues of inequity and marginalization within educational contexts—an endeavor that has become increasingly relevant in highly unequal regions in the aftermath of the COVID-19 pandemic. This systematic review maps research on social justice (SJ) theoretical approaches and the production of empirical knowledge about SJTE in Latin American, identifying predominant research foci, theoretical currents, and regional findings. Following PRISMA guidelines, the review included a meta-analysis (metatheory/meta-data) of 52 indexed works (WoS, Scopus, and Scielo Citation Index) published up to 2022. The results show that most research is concentrated in Chile and Brazil, and that theoretical approaches intersect U.S.-based SJTE frameworks and Latin American or international critical educational theories, emphasizing the importance of situated and community-based pedagogies. Most works focus on preservice teachers' conceptions

of SJ, or the challenges faced by teacher educators during the design or implementation of specific SJTE activities. Fewer studies examine SJ-oriented teaching activities designed and implemented by preservice teachers as part of the fieldwork experiences, with the purpose of transforming the realities of marginalized students in local communities. The studies underscore the need to position care, affectivity, and the development of empathy as guiding principles of SJTE and teaching, especially in contexts of continuous political unrest. Further analysis of the design, implementation, and (self-)evaluation of SJTE programs' pedagogical models, beyond punctual experiences, would contribute to understanding how their decision-making proccesses enable—or constrain—the development of socially just programs, as well as which pedagogical practices facilitate the development of the competences that their future teachers will need to work in challenging post-COVID-19 educational systems.

DeJulio, S. (2025). **Tensions within and between systems in the first years of teaching**. *International Journal of Inclusive Education*, *29*(10), 1823-1843. https://doi.org/10.1080/13603116.2024.2305182
In this study, the author follows nine teachers from their university programme through their first three years of professional teaching in order to understand the work beginning teachers do and the tensions they face through the lens of Activity Theory. The author uses data from interviews, observations, and written communication from across the three years to identify different systems of object-oriented activity and tensions within and between those systems. Applying Activity Theory Analysis, the author highlights four distinct systems of activity found in the participants' contexts and shares examples of tensions that appear within and between two or more systems. These systems and tensions demonstrate that beginning teaching is not a single system, but rather a conglomeration of multiple systems that interact in complex ways. The author proposes Activity Theory as a useful tool to prepare preservice teachers for the complexity of beginning teaching.

Delplancke, M., & Chalak, H. (2025). **La fresque du climat pour former les enseignants à l'éducation au changement climatique : quelle éducation au politique possible ?** *Éducation & didactique*, (2), 49-63. https://doi.org/10.4000/14b8a
Le changement climatique est un problème dont la complexité peut être abordée par un travail autour de la fresque du climat, outil issu de la médiation scientifique largement utilisé par les enseignants et les formateurs. Nous étudions ses potentialités et ses limites du point de vue d'une éducation au politique en analysant son utilisation en formation des enseignants du premier et du second degré en SVT. Nos résultats suggèrent que la fresque contribue à saisir certaines dimensions du changement climatique, mais que les cartes de la fresque à elles seules, rendent difficile l'accès à une problématisation socioscientifique et politique du changement climatique. Cela débouche sur l'importance d'accompagner cet outil mobilisé en formation d'une réflexion critique, pour aller vers des formes plus complexes de raisonnements où les enjeux politiques sous-jacents sont questionnés.

Drégoir, M. (2025). **L'évolution du salaire des enseignants titulaires et assimilés titulaires entre 2022 et 2023**. *Note d'Information*, (25.48), 1-4. Consulté à l'adresse https://www.education.gouv.fr/l-evolution-du-salaire-des-enseignants-titulaires-et-assimiles-titulaires-entre-2022-et-2023-450965

En 2023, un enseignant titulaire ou assimilé titulaire de l'éducation nationale, qu'il soit à temps complet, partiel ou incomplet, perçoit en moyenne 2 920 euros nets par mois : 3 010 euros lorsqu'il est à temps complet et 2 190 euros lorsqu'il est à temps partiel ou incomplet.

Elçi, A. N., Atman Uslu, N., Yildiz Durak, H., Kula Unver, S., Ozaltun Celik, A., & Bukova Guzel, E. (2025). **What Drives Metacognitive-Identity Profiles for Primary School Teachers? A Latent Profile Analysis and Predictor Roles of Growth Mindset and Demographics**. *European Journal of Education*, *60*(3), e70169. https://doi.org/10.1111/ejed.70169
Metacognition involves teachers reflecting on their knowledge and teaching practices and mobilising students' metacognition. Teachers' metacognitive regulation is necessary to promote students' learning and motivation. Additionally, teacher identity is a dynamic process that evolves through social interactions and relationships in the workplace. This study investigates the latent profiles of primary school teachers' metacognitive strategies and identities. It also examines how teacher growth mindset and demographic factors influence the membership prediction in these profiles. The participants of the study consisted of 303 primary school teachers working in various regions of Turkiye. Latent profile analysis (LPA) and ANOVA were used to analyse the data. The results revealed that four distinct profiles best represented the meta-cognitive organising strategies and teacher identity constructs observed among primary school teachers. Latent profile analysis revealed four distinct teacher profiles: (a) Detached educators: teachers with low metacognition and moderate teacher identity: characterised by moderate professional identity and weak metacognitive regulation strategies, (b) Highly performed teachers: strong metacognition and teacher identity: exhibit a strong teacher identity and metacognitive regulation skills, (c) Balanced profiles: teachers with moderate metacognition and teacher identity: characterised by a balanced distribution in terms of identity and metacognition, (d) Struggling with identity: teachers with low teacher identity but moderate metacognition: exhibit medium level of meta-cognitive regulation and the lowest level of teacher identity. ANOVA results show that there are significant differences between teachers' identity and meta-cognitive strategy use according to the profiles.

Escalante, J. A., & Baguio, J. B. (2025). **Captivating Leadership and Teamwork Structure in Relation to Managerial Wellness of Teachers in Public Elementary Schools**. *Journal of Economics, Management and Trade*, *31*(7), 297-308. https://doi.org/10.9734/jemt/2025/v31i71328
This study aimed to determine the significant relationship between captivating leadership and teamwork structure in relation to managerial wellness among teachers in public elementary schools in Manay District, Division of Davao Oriental. A descriptive-correlational research design was employed, with a sample of 131 public elementary school teachers selected through universal sampling. Data were gathered using standardized survey questionnaires, which were validated by experts and subjected to a reliability test to ensure consistency and accuracy of measurement. The data were analyzed using mean, Pearson product-moment correlation, and multiple linear regression analyses. The findings indicated that captivating leadership (M=3.79; SD=0.33), teamwork structure (M=3.36; SD=0.32) and managerial wellness (M=3.80; SD=0.36) were all rated as high. Correlation analysis revealed a significant positive relationship between captivating leadership and managerial wellness (r=0.71; p-value=0.000), as well as between teamwork structure and managerial wellness (r=0.68; p-value=0.000).

Furthermore, the study found that captivating leadership and teamwork structure significantly influenced the managerial wellness of teachers (r=0.83; p-value=0.000). It is recommended that the Department of Education may continue to promote leadership and teamwork enhancement initiatives by cultivating a positive working environment and strengthening collaboration among school heads, teachers, and administrators to improve overall managerial wellness in schools.

Espinoza, A. M., Strasser, K., Kessels, U., & Morales, M. F. (2025). **Stereotyped perceptions of readers: an experimental vignette study with high school students and teachers**. *International Journal of Educational Research*, *133*, 102744. https://doi.org/10.1016/j.ijer.2025.102744

In many countries, there are medium to large gender gaps in reading achievement and motivation in favor of female students. Since research does not show substantive gender differences in verbal skills, socio-cognitive factors, such as stereotypes associated with reading, become a plausible explanation for these gender gaps. A vignette study was conducted to test whether high school students and teachers have stereotypical perceptions about boys and girls who like to read. The study used a 2 (target's gender: boy vs. girl) x 2 (target's reading enjoyment: low vs. high) factorial design to examine the effect of a character's gender and reading enjoyment on participants' judgments about the character's academic traits, popularity, and gender expression. Participants were 296 high school students and 135 Chilean high school language-teachers in Santiago (Chile). Multivariate analysis of variance (MANOVA) and follow-up univariate ANOVAs with Bonferroni corrections showed that students hold gender stereotypes about reading because they perceive reading to be more associated with femininity than masculinity. Additionally, both students and teachers perceive characters who like to read as having more academic traits and being less popular than characters who do not enjoy reading. Contrary to expectations, no interaction effects between gender and reading enjoyment were found. These findings provide empirical evidence regarding a relevant topic in education -sources of inequalities in reading achievement. Such results may offer a preliminary basis for identifying general directions for policies or interventions that promote more equitable literacy learning opportunities for male and female high school students.

Fan, X., & Qin, H. (2025). **Differential Effects of Research Funding Types on Academic Career Achievements**. *European Journal of Education*, *60*(3), e70194. https://doi.org/10.1111/ejed.70194

Amid growing reliance on performance-based governance in global higher education, research funding plays a critical role in shaping academic trajectories. This study investigates the differential effects of project-based and talent-related funding on scholarly achievements in China, drawing on Bourdieu's theory of capital. Using a dataset of 17,134 SCI-indexed publications and funding records from E University, we employed stepwise regression models to assess the impact of funding types on research output, collaboration, promotion, talent titles, and technological awards. Findings reveal that project-based funding primarily boosts research productivity and publication quality, strengthening cultural capital. Conversely, talent-related funding is more strongly associated with academic mobility, broader collaboration networks, and institutional recognition, key indicators of social and symbolic capital. For instance, talent fund recipients were 34.2% more likely to be promoted to professorship and 56.9% more likely to secure national talent titles. These results demonstrate how funding schemes act as

mechanisms for stratifying academic opportunity, rather than just financial instruments. This study offers critical insights into designing funding policies that foster more balanced and inclusive academic development across diverse higher education systems.

Ferhat, I. (2025, août 28). **Ismaïl Ferhat : « Le rôle de contre-pouvoir des syndicats de l'éducation s'est réduit »**. Consulté 29 août 2025, à l'adresse Alternatives Economiques website: https://www.alternatives-economiques.fr/ismail-ferhat-role-de-contre-pouvoir-syndicats-de-leducation-s/00115445
Affaiblissement des syndicats, évolutions du profil sociologique des enseignants, émergence de nouveaux acteurs : le spécialiste en sciences de l'éducation analyse l'état politique du monde enseignant.

García Buitrago, E., García García, E., & García Yelo, B. A. (2025). **When belief meets the blackboard: Uncovering pseudoscientific ideas and misconceptions in Spanish pre-service teachers**. *International Journal of Educational Research*, *133*, 102723. https://doi.org/10.1016/j.ijer.2025.102723
Pseudoscientific beliefs and misconceptions are still spreading widely in society, often supported by social media and a lack of scientific literacy. This research focus on analyzing the degree of acceptance of such ideas among pre-service teachers at the Universidad Complutense Madrid (UCM), considering their academic level and pre-university educational background. A total of 492 students from undergraduate and Master's programs in Education and Teacher Training participated in the study. Participants completed a questionnaire consisting of 30 statements representing common misconceptions and pseudoscientific claims across five scientific domains: health, geology, nutrition, biology, and multidisciplinary sciences. Our results show moderate rejection of pseudoscientific ideas by pre-service teachers, with the lowest acceptance levels found in the health domain. However, higher acceptance rates were observed in geology, biology, and nutrition items. Statistically significant differences were found between undergraduate and Master's students, with the latter—mostly trained in scientific disciplines—exhibiting stronger critical thinking. Likewise, students with a background in science in pre-university studies demonstrated greater critical skepticism toward pseudoscientific claims. These findings highlight the importance of strengthening scientific basis and critical thinking skills in teacher education programs to prevent the propagation of pseudoscientific beliefs in classrooms and promote evidence-based education.

Garrote, A., Grigoleit, E., & Tulowitzki, P. (2025). **Same job title, same stress? Insights from an analysis of stress profiles of school principals in Switzerland**. *International Journal of Educational Research*, *133*, 102698. https://doi.org/10.1016/j.ijer.2025.102698
The job of a school principal can be highly demanding, with stress levels depending on the individual's perception (i.e. perceived work overload) and coping behaviors (i.e. intensification and extension of working hours). To provide adequate support to school principals, it is imperative to identify those who are more at risk and to examine the related factors. We examine stress profiles of principals in Switzerland and their association with factors at the school (i.e., level, size) and principal level, such as individual characteristics (i.e., workload, qualification, self-efficacy) and professional development activities (i.e., coaching, peer mentoring, networks, informal exchange, conferences). Data from 1095 principals in pre-primary, primary, and lower-secondary schools were collected with questionnaires. Using latent profile analysis (LPA), profiles of

principals with high, average, and low levels of stress were identified. The results show that most school principals were in the average profile and only a small group reported low levels of stress. The high-stress profile included one-third-of school principals, who were more likely responsible for pre-primary and primary level schools. Their levels of stress were associated with lower levels of self-efficacy beliefs but also with more frequent participation in professional development activities, such as coaching and peer mentoring. School size, official workload, and the qualification were not associated with stress profile membership. The findings highlight the importance of considering the school context as well as individual characteristics when investigating school principals' stress to develop tailored measures.

Ghamrawi, N., Ghamrawi, N. A. R., & Shal, T. (2025). **Leading or Managing in the Middle: Exploring the Identities of Head of Departments in Higher Education Using Dynamic Systems Model**. *Higher Education Quarterly*, *79*(3), e70037. https://doi.org/10.1111/hequ.70037
Drawing upon the Dynamic Systems Model of Role Identity (DSMRI), this study explored the construction of the role identity of department heads within higher education, with a specific emphasis on their perceptions of themselves as leaders and/or managers. Three section heads, each holding a doctoral degree in educational leadership from different Arab countries, were tracked throughout their inaugural year of appointment, examining the evolution of their role identities and the factors contributing to them. Data sources included reflective journals and two rounds of interviews per participant, with qualitative analysis employed to trace shifts and advancements in participants' ontological beliefs, objectives, self-perceptions and actionable potentials related to their roles. Findings unveiled notable transformations in all four dimensions of the DSMRI among the participants, with two individuals transitioning from predominantly leadership to managerial roles, whereas the third participant retained a reinforced identity as a leader. This evolution is discussed in relation to concepts of administrative burden, power and authority, emulation of senior leadership and reactivity versus proactivity.

Granger, N., & Tardif, J. (2025). **La pénurie des enseignants au Québec : vers des changements de politiques**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wn
Au Québec, les politiques ministérielles ont été assouplies pour soutenir la professionnalisation et la certification professionnelle des enseignants sans brevet. Ces changements visaient à favoriser l'accessibilité à la formation de ces personnes qui bénéficient d'une tolérance de recrutement. Parmi les différents enjeux, la méconnaissance de la reconnaissance des acquis et des compétences extrascolaires limite les admissions en contexte universitaire et nuit à l'optimisation du parcours, pour les personnes en situation d'emploi qui doivent conjuguer travail, études et responsabilités familiales. Une « matrice virtuelle » a été créée pour soutenir le développement d'un portfolio utilisable pour la reconnaissance des acquis et des compétences et en phase avec les compétences requises pour enseigner.

Grannäs, J., Frelin, A., Lorentzi, K., & Bergström, M. L. (2025). **Designing and building safer schools using two visual methods for teacher evaluation**. *International Journal of Educational Research*, *133*, 102721. https://doi.org/10.1016/j.ijer.2025.102721
Ensuring safety in school environments is a fundamental right for children, essential for fostering learning, well-being, and inclusivity. This study examines how physical design,

organizational structure, educational upbringing, and social dynamics interact to influence safety in schools. Given that adult presence and professional judgments are essential to ensuring students' right to safety, this study analyses teachers' evaluations using two visual methods to explore how such rights are practically interpreted and enacted in school spaces. Using two complementary visual methods, Mapping and Diamond Ranking, teacher evaluations were analyzed to identify critical factors shaping perceptions of safety. The findings suggest the importance of adult presence, clearly defined spaces, and a sense of ownership in creating safe environments. Conversely, poorly designed areas, such as corridors and changing rooms, were associated with unsafety due to privacy concerns and inadequate supervision. By adapting Gislason's school environment model to include dimensions of safety, this study offers a framework to understand how design and social factors intersect in shaping safe schools. The findings may provide insights for architects, planners, and educators seeking to foster safer and more inclusive school environments that support educational outcomes.

Granziera, H., J. Collie, R., Roberts, A., Corkish, B., Tickell, A., Deady, M., … Werner-Seidler, A. (2025). **Teachers' workload, turnover intentions, and mental health: perspectives of Australian teachers**. *Social Psychology of Education*, *28*(1), 149. https://doi.org/10.1007/s11218-025-10113-w
Teaching has long been recognised as a demanding profession. Despite growing acknowledgement of the stress and emotional exhaustion experienced by teachers, limited research has considered how these experiences may be associated with mental health. Accordingly, the present research aimed to address this gap by identifying the current levels of depression, anxiety, and stress among Australian teachers and by considering the extent to which workload—a frequently cited source of stress—was associated with teachers' mental health and turnover intentions. This cross-sectional study involved an online survey of 4,959 Australian primary and secondary school classroom teachers. Results revealed disproportionately high levels of depression, anxiety, and stress among Australian teachers, relative to the general population. Furthermore, path analysis revealed that teachers' workloads were correlated with greater levels of depressive symptoms, which in turn was correlated with higher levels of turnover intentions. The findings of the present study highlight the pressing need to address teachers' working conditions and to acknowledge and redress the significant levels of poor mental health in this population.

Hadar, L. L., & Baharav, H. (2025). **University-school partnership in education as a context for teacher professional development**. *International Journal of Educational Research*, *133*, 102693. https://doi.org/10.1016/j.ijer.2025.102693
Teachers' professional development is widely recognized as essential for instructional improvement (Darling-Hammond, Hyler, & Gardner, 2017), teacher retention (Ingersoll & Strong, 2011), and student learning (Kennedy, 2016). University–school partnerships provide a key structure for supporting not only pre-service teacher education (Zeichner, 2010) but also ongoing professional development across teachers' careers (Grossman, Wineburg, & Woolworth, 2001). Yet little research has examined how the contextual factors and conditions that shape university–school partnerships influence these professional-development opportunities. This qualitative study examined how participation in a research-focused university-school partnership promoted teachers' professional development and growth. We conceptualize the partnership as a research-practice partnership, emphasizing the centrality of collaborative, research-driven inquiry

into pedagogy within the university-school partnership framework. Aligning with research on effective professional development, the study highlights university-school partnership as a supportive environment for teacher learning. Qualitative thematic analysis of data from interviews with 25 teachers and 14 school principals, meetings documentation, and reflective summaries of teachers and school principals' experiences, yielded three themes: enhanced pedagogical practice, personal-professional growth, and school culture of learning through research. The findings underscore the significant role of research-focused university-school partnership as a framework for teachers' professional learning, and emphasize its potential outcomes across individual and organizational dimensions in schools. We conclude that these partnerships position teachers as equal collaborators in the co-construction of knowledge, thus empowering them as professionals and fostering the sustainability of educational innovations.

Hecquet, E., Bouchetal, T., & Pinsault, N. (2025, mai). ***La professionnalisation des formateurs en soins infirmiers à l'épreuve de l'universitarisation : une étude qualitative***. Consulté à l'adresse https://hal.science/hal-05208236
Contexte et problématique L'universitarisation des formations paramédicales et en particulier celle de la filière infirmière, constitue une transformation majeure du paysage de l'enseignement supérieur. Cette évolution a transformé le rôle des formateurs, mettant en lumière la nécessité d'analyser les dynamiques de professionnalisation en soins infirmiers. Objectifs : Cette recherche s'intéresse à la professionnalisation des formateurs en soins infirmiers en abordant deux axes principaux : d'une part, l'intention de professionnalisation des organisations, et d'autre part, le développement professionnel des individus. Méthodes : Une enquête ethnographique multi-site, combinée à des entretiens biographiques, a permis d'analyser les logiques de professionnalisation et de développement professionnel. Chaque site a fait l'objet d'une immersion de dix jours, incluant des entretiens visant à comprendre les expériences des individus et les dynamiques de formation. Résultats : Les résultats s'articulent autour de cinq thèmes : le parcours professionnel des formateurs, le parcours des membres de l'équipe de direction, le développement professionnel, la perception de l'universitarisation et les intentions managériales. Conclusion ; Les résultats de cette étude permettent d'aborder une visée praxéologique dans le contexte d'universitarisation de la formation infirmière mettant en lumière quatre axes principaux : favoriser la double acculturation entre les partenaires, soutenir l'évolution du rôle des formateurs, développer des départements universitaires dédiés aux sciences infirmières, et favoriser le développement de celles-ci.

Hecquet, E., Pinsault, N., & Bouchetal, T. (2025). **L'universitarisation des formations infirmières : une analyse de la professionnalisation des formateurs à travers les niveaux micro, méso et macro**. *Pédagogie Médicale*, *26*(Suppl 1), S40. https://doi.org/10.1051/pmed/2025006
Context and Problem Statement: The university integration of paramedical education, and in particular the nursing track, represents a major transformation in the landscape of higher education. This research aims to analyze this process through the lens of the professionalization framework developed by Wittorski (2007). Methods:A multi-site ethnographic study, complemented by biographical interviews, was conducted to examine the logics of professionalization and professional development. Each site was the subject of a ten-day immersion, including interviews designed to understand participants' experiences and training dynamics. Wittorski's conceptual framework,

centered on professionalization, proves relevant for exploring the complexity of this phenomenon in the context of university integration. Objectives: This study explores professionalization through a multi-level approach (micro, meso, macro), allowing for the examination of its individual, organizational, and societal dimensions. Results: At the micro level, the study focuses on the individual trajectories of trainers and the elements contributing to their professionalization within their organizations. The meso-level perspective highlights that university integration is not merely an institutional requirement but a dynamic process in which local actors play a key role. While national policies set overarching frameworks, it is at this level that the realities on the ground are shaped. Finally, the macro perspective addresses the societal, political, and institutional issues linked to this transformation. The analysis examines governance, the role of stakeholders in university integration, and the training curriculum framework as a central lever of change. Conclusion: The conclusion puts forward a praxeological perspective to guide the university integration of nursing education.

Henry, M., Eryilmaz, N., Kennedy, A. I., Strietholt, R., & Bäckström, P. (2025). ***Teacher Job Satisfaction: International Evidence on the Associations with Teacher Workload, School Leadership, and Student Discipline*** (p. 1-8). Consulté à l'adresse IEA website: https://www.iea.nl/publications/series-journals/iea-compass-briefs-education-series/teacher-job-satisfaction

Husson, L., Bournaud, I., & Philion, R. (2025). **Être tuteur d'apprenant en situation de handicap : quelles compétences transversales développées ?** *QPES 2025 Colloque "Questions de pédagogie dans l'enseignement supérieur"*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05160178
RESUMEPlusieurs Écoles d'ingénieurs françaises déploient depuis une dizaine d'années un programme de tutorat pour apprenants (collégiens, lycéens, étudiants) en situation de handicap. Nous présentons ici les résultats d'une enquête quantitative menée auprès d'une soixantaine de ces tuteurs concernant les compétences transversales développées à travers cette expérience. Ils ont été interrogés en fin d'année universitaire (au terme des séances de tutorat) sur l'évolution de leur maitrise de 15 « compétences » identifiées comme pouvant être déployées dans le cadre du tutorat. Les résultats confirment et affinent ceux obtenus dans une étude préalable de journaux d'apprentissage remplis par des tuteurs. Ils indiquent réaliser des apprentissages sur les deux volets (i) savoir interagir aisément avec des personnes en situation de handicap et (ii) de multiples compétences telles que faire preuve d'écoute et d'empathie, et s'adapter aux besoins spécifiques et évolutifs de leur tutorés.

Impedovo, M. A. A., Marty, O., & Ungureanu, E. (2025). **International Collaboration and Teacher Identities**. *The Making of Authentic Teachers*. Présenté à Dublin, Ireland. Consulté à l'adresse https://hal.science/hal-05231657
The internationalization of higher education has emerged as a key driver for enhancing the quality of education, fostering collaborative research, and strengthening intercultural dialogue (Knight, 2012). In Europe, higher education institutions have increasingly expanded their international partnerships through structured university alliances. These alliances are envisioned as strategic actors in the European integration process, supporting talent mobility, collaborative resource sharing, and the preparation of future European leaders (Galán-Cubillo, Serrano-Cobos, & López-Navarrete, 2024, p. 18). The benefits of enhanced internationalization are widely acknowledged as mutual and far-

reaching (Egron-Polak & Green, 2015, p. 2). However, such collaborations also face significant challenges, particularly in aligning institutional priorities, managing administrative complexities, and mobilizing adequate resources (Teichler, 2017). Against this backdrop, our analysis will focus on the organizational culture of university alliances.

Juma-Elflow, K., & Osam, U. V. (2025). **Intersectional conflicts and strategic agency: Female English teachers in post-conflict Libya**. *International Journal of Educational Research*, *133*, 102756. https://doi.org/10.1016/j.ijer.2025.102756
This study examines how female English as a Foreign Language (EFL) teachers in post-conflict Libya construct and negotiate their professional identities amid intersecting pedagogical, institutional, and sociocultural challenges. Using a theoretical framework that integrates Gendered Professional Identity Theory, Social Identity Theory, and Intersectionality, the research employs Interpretative Phenomenological Analysis (IPA) of in-depth interviews with twelve female Libyan EFL teachers. The findings reveal the profound emotional and ideological labor demanded of these educators, leading to four novel conceptual insights: 'cultural boundary' work, where student resistance acts as socio-political identity assertion; 'intersectional emotional labor', highlighting the compounded emotional demands shaped by gender, surveillance, and conflict fragility; 'proclivitic conformity', reflecting strategic compliance for self-preservation; and 'gendered professional invisibility', where teachers minimize public visibility to conform to societal norms. These findings challenge dominant Western-centric views of teacher identity and emotional labor, emphasizing the need for culturally responsive educational policies and teacher development programs in fragile, conflict-affected contexts. This study contributes to scholarship on teacher identity, language education, and educational development in Libya.

Lajnef, K. (2025). **How does accounting education shape the digitalization of the accounting profession? A cognitive mapping investigation**. *Quality & Quantity*, *59*(4), 3441-3460. https://doi.org/10.1007/s11135-025-02131-9
This study explores how accounting education influences students' readiness for the digitalization of the accounting profession, with a particular focus on Tunisian accounting students. A qualitative approach is employed, utilizing cognitive mapping techniques with a sample of 74 students. Through cognitive mapping, key cognitive structures related to factors such as faculty expertise in digital accounting, resource availability, and continuous professional development initiatives are identified. Faculty expertise, in this context, refers to instructors' proficiency with digital tools and their ability to incorporate these tools into their teaching. Resource availability pertains to the access students have to digital learning tools and development opportunities that enable engagement with modern accounting technologies. The findings indicate that faculty expertise and access to digital resources significantly contribute to students' readiness for digital accounting tasks, fostering skills that go beyond traditional accounting practices. A practical recommendation is to implement targeted faculty development programs and increase funding for digital tools, ensuring alignment between accounting curricula and industry standards. This study underscores the importance of embedding digital literacy into accounting education, offering insights for educational institutions and policymakers on preparing students for the evolving technological demands of the accounting profession.

Lan, G., Feng, X., Du, S., Song, F., & Xiao, Q. (2025). **Integrating ethical knowledge in generative AI education: constructing the GenAI-TPACK framework for university teachers' professional development**. *Education and Information Technologies*, *30*(11), 15621-15644. https://doi.org/10.1007/s10639-025-13427-6
Despite the critical role teachers play in AI education, research on their understanding of generative AI tools remains limited, particularly concerning their ethical assessment knowledge. This study addresses the gap by proposing the Generative AI Technological Pedagogical Content Knowledge (GenAI-TPACK) framework, which incorporates ethical knowledge as an essential component of university teachers' professional development. Grounded in the Technological Pedagogical Content Knowledge (TPACK) model, we utilize structural equation modeling to investigate the interrelationships among Generative AI Technological Knowledge, pedagogical knowledge, and ethical assessment knowledge. Our findings indicate that university teachers' effective use of generative AI is contingent upon their technological knowledge and engagement with these tools. Furthermore, while technical knowledge supports evaluative decision-making, it is insufficient on its own for successful integration into teaching practices. Instead, a holistic approach that combines technological and pedagogical knowledge enhances teachers' capacities to utilize generative AI effectively. The study also reveals a positive correlation between ethical assessment knowledge and both pedagogical and content knowledge, contributing to a comprehensive understanding of the GenAI-TPACK framework. This research underscores the importance of integrating ethical considerations into AI education, offering valuable insights for the professional development of educators and the enhancement of teacher training programs.

Leigh-Osroosh, K. T., & Faircloth, S. C. (2025). **Storying our experiences in the academy as a means of resistance and survivance**. *International Journal of Qualitative Studies in Education*, *38*(8), 1127-1148. https://doi.org/10.1080/09518398.2025.2502061
Today's polarizing socio/historical-cultural contexts challenge the intersectionality of practitioner-scholars committed to justice, particularly those of us from historically marginalized groups, constraining our ability to design careers that align with our values and transform education. Recent efforts to restrict free speech and eliminate diversity, inclusion, and equity (e.g., Students for Fair Admissions v. Harvard 600 U.S. 181 (2023)) within education have heightened pressure to conform to white, heteropatriarchal supremacist, and neocolonialist paradigms, resulting in a need for new strategies of resistance. In response, we share snippets of our lives in the academy as we have worked to create congruence between our values and career roles. We do so through the use of storywork) and living theory. Through our stories, we identify themes of (a) interrelationality; (b) responsibility; (c) resistance; and (d) survivance, which can aid practitioner-scholars navigating neocolonialist, white, heteropatriarchal supremacist contexts.

Lizardo, L. D., & Baguio, J. B. (2025). **Futuristic Leadership Practices and Participatory Good Governance of Public Elementary School Teachers**. *Journal of Economics, Management and Trade*, *31*(7), 208-217. https://doi.org/10.9734/jemt/2025/v31i71322
This study was conducted to determine the relationship between futuristic leadership practices and participatory good governance among teachers in public elementary schools in Dujali District, Division of Davao del Norte. A non-experimental quantitative research design utilizing the correlational method was employed. The respondents consisted of 131 public elementary school teachers selected through universal sampling.

Data were analyzed using mean, Pearson r, and regression analysis. The findings revealed that the level of futuristic leadership practices among teachers was high and often manifested. Similarly, the level of participatory good governance was also high and frequently demonstrated. A significant relationship was found between futuristic leadership practices and participatory good governance. Furthermore, the domains of futuristic leadership practices significantly influenced participatory good governance among teachers. Based on the findings, it is recommended that school heads enhance leadership practices by encouraging professional ethics among teachers and addressing students' needs through the creation of pleasant surroundings, a friendly atmosphere, and an inspiring learning environment. This information should be effectively communicated to all school administrators.

Marsden, D., & Sezer, L. A. (2025). **Appraisal Process, Merit Pay and Performance: Evidence From a Longitudinal Survey of School Teachers in England and Wales**. *British Journal of Industrial Relations*, *63*(3), 445-461. https://doi.org/10.1111/bjir.12869
This study investigates how the quality of performance appraisals influences perceptions of merit pay − whether it is viewed as motivating or divisive − and its impact on achieving performance objectives. Using longitudinal survey data collected from classroom teachers in England and Wales between 2014 and 2018, and employing an instrumental variable approach, the analysis reveals that the effectiveness of merit pay in improving employee performance is closely tied to the quality of appraisal processes. Procedural fairness emerges as a key factor in fostering both motivational and divisiveness attitudes, whereas poorly designed or disengaging appraisals tend to amplify divisiveness rather than motivation, undermining the achievement of performance objectives. These findings highlight the need to carefully weigh both the potential benefits and drawbacks of merit pay systems.

Martins, P. S., & Ferreira, J. R. (2025). **Effects of individual incentive reforms in the public sector: the case of teachers**. *Public Choice*, *204*(3), 457-481. https://doi.org/10.1007/s11127-024-01256-z
Can incentive schemes deliver value in the public sector, despite major principal-agent challenges? We evaluate a reform that introduced individual teacher performance-related pay and tournaments in public schools in Portugal, despite trade union opposition. We find evidence that the focus on individual performance decreased student achievement (as measured by national exams) and increased grade inflation. The results follow from a difference-in-differences analysis of matched student-school panels and two complementary control groups (including private schools). Students with a higher proportion of teachers exposed to tournaments also perform worse. Overall, our results highlight the social costs of disrupting workers' cooperation, a possible unintended consequence of public-sector tournaments.

Mocquet, B., Moutte, F., Mclellan, S., & Vivier Leloire, E. (2025). **How are university CIOs trained in 2025? The French Touch**. *EUNIS Annual Congress*. Présenté à Belfast (Northern Ireland), Ireland. Consulté à l'adresse https://hal.science/hal-05172775
In the ever-changing landscape of higher education, the role of Chief Information Officers (CIOs) in universities has undergone a profound transformation. As universities rely more on digital technologies to innovate and improve teaching, learning and administrative processes, university CIOs' responsibilities have expanded significantly. This presentation explores the French approach to training university CIOs between 2018 and

2025, highlighting the collaborative framework developed to enhance their managerial skills and strategic capabilities in a decentralized system where institutions manage their digital strategies independently.

Müller, S. M., & Bittermann, A. (2025). **The Emotional Climate of Academia: Exploring Social Media Data as an Indicator of Well-Being**. *Journal of Happiness Studies*, *26*(6), 96. https://doi.org/10.1007/s10902-025-00902-7
Understanding and promoting researchers' well-being is crucial for successful research outcomes and a thriving scientific community. Traditional well-being assessments can be resource-intensive, but prior research suggests that sentiment analysis of social media text data can provide insights into the emotional well-being in the general population. In this proof-of-concept study, we explore whether social media sentiment can serve as an indicator of researchers' well-being on a group-level. Specifically, we analyze the emotional climate of the academic community by applying sentiment analysis to a dataset of more than 3.48 Million messages from 14,876 psychology researchers, posted on the platform Twitter/X between 2019 and 2021. As this period is one year before and after the onset of the coronavirus pandemic, we used the findings from COVID-19 research to derive two hypotheses: lower well-being during the pandemic is reflected in more positive/less negative sentiment in researchers' social media posts (H1), and a stronger impact on female researchers is reflected in even more positive/less negative sentiment in female researchers' posts (H2). Using structural break analysis, the impact of the pandemic was found to be statistically significant for positive sentiments. A differential effect by gender was observed descriptively, but did not reach statistical significance. The results suggest a positivity bias in scholarly communication on Twitter/X, with only changes in positive sentiments as an indicator of researchers' emotional well-being. Gender differences were found for general sentiment magnitude, but not in the effect of the pandemic. Exploratory analysis of cognitive well-being revealed relationships and accomplishment as the predominant PERMA + 4 dimensions in researchers' posts. We discuss promising expansions of our approach and highlight practical implications for policymakers.

Musyoki, D. (2025, juin 30). **Inclusion of Refugee Teachers into Kenya's National Education System**. Consulté 3 septembre 2025, à l'adresse APHRC website: https://aphrc.org/publication/inclusion-of-refugee-teachers-into-kenyas-national-education-system/
Despite Kenya's progressive commitments to refugee inclusion under the Global Compact on Refugees and the Comprehensive Refugee Response Framework (CRRF), refugee teachers continue to face systemic exclusion from the country's formal education workforce. Our latest policy brief unpacks the pressing need to integrate refugee teachers into Kenya's national education system—not just as a matter of rights, but as a practical solution to the country's growing teacher shortage and a pathway toward more inclusive, equitable learning for all.

Nurmukhamed, D., Chegenbayeva, A., Nurumov, K., & Hernández-Torrano, D. (2025). **Stress stemming from educational reforms as a key determinant of teacher's turnover intentions: evidence from TALIS 2018**. *Quality & Quantity*, *59*(3), 2361-2380. https://doi.org/10.1007/s11135-025-02083-0
It is widely believed that stress can affect teachers' intention to change the workplace. This study investigates the implementation of educational policies and reforms as one of

the key determinants of teachers' intention to leave schools in Kazakhstan. Kazakhstan presents a unique case since the country endorsed several educational policies in recent years which directly impacted teaching and administrative practices within schools. Using the Teaching and Learning International Survey 2018 (TALIS) data with the country-specific questionnaire from a complex sample of 6566 teachers nested within 331 schools, this study constructs a statistical measure of external stress caused by the implementation of educational policies and test its impact on teachers' intention to leave through a Bayesian multilevel logistic regression model. In addition, the analysis controls for sociodemographic, professional, and students related covariates, while considering the intrinsic dimension of stress stemming from workload, student behavior and expectation. Overall, the results suggest that stress caused by educational policies has a statistically significant positive effect on teachers' intentions to transfer between schools, beyond and above teacher and student variables and intrinsic sources of stress. The results are discussed, and implications for researchers and policy makers to develop evidence-based policy interventions aimed at increasing teacher retention in contexts with intensive educational reforms are presented.

Orcullo, R. R., & Baguio, J. B. (2025). **Administrative Alternative Solution and Predicament Supervision in the New Normal Education in Public Elementary Schools**. *Asian Journal of Advanced Research and Reports*, *19*(6), 324-335. https://doi.org/10.9734/ajarr/2025/v19i61062

Supervision in the new normal has also proven to be highly problematic. In school heads faced challenges in monitoring teachers remotely while also dealing with increased administrative workloads and fragmented communication lines. This study examined the relationship between administrative alternative solutions and predicament supervision in the context of new normal education in public elementary schools within the Braulio E. Dujali District, Division of Davao del Norte. Employing a non-experimental quantitative research design with a correlational method, the study utilized purposive sampling and involved 165 teacher-respondents from the district. Statistical tools used included the mean, Pearson Product-Moment Correlation Coefficient (Pearson r), and multiple regression analysis. The results revealed that both administrative alternative solutions and predicament supervision were rated high and consistently manifested by the respondents. Moreover, components of new normal education such as instructional methods, social background, and course management systems were likewise evident at all times. The results indicated a significant relationship between administrative alternative solutions and predicament supervision. Moreover, the domains of administrative alternative solutions significantly influenced predicament supervision. These findings provide valuable insights for schools, school heads, teachers, parents, and learners. They offer a clear empirical basis for understanding the dynamics of educational leadership and supervision in the new normal, ultimately supporting efforts to enhance the quality and effectiveness of virtual teaching and learning processes. Future researchers are encouraged to explore the impact of administrative alternative solutions on broader school outcomes such as teacher well-being, student discipline, and institutional performance. Mixed-method and comparative research across different divisions, grade levels, or school typologies may yield deeper insights into how administrative effectiveness shapes supervisory success and educational quality over time.

Pan, F., Zhao, L., & Cao, E. Y. (2025). **Revisiting factors influencing strategies for enhancing pre-service teachers' digital competencies**. *Education and Information Technologies*, *30*(11), 15361-15397. https://doi.org/10.1007/s10639-025-13416-9
The boost in the competitiveness of the teaching workforce largely hinges on the marked improvement of pre-service teachers' digital competencies. Nevertheless, there is currently a dearth of specific research exploring the relationship between prospective teachers' acceptance of technological innovation and the organizational innovation climate in conjunction with digital competencies. This research aims to bridge this gap by investigating the influential factors of strategies for enhancing digital competencies among pre-service teachers. This study delves into these competencies and their influencing factors by utilizing the SQD-6D stratagem model, a tool designed to assess six specific teaching strategies. The data were collected from 516 Chinese pre-service teachers and analyzed using partial least squares structural equation modeling (PLS-SEM). Model comparative analysis supported by five distinct models revealed compelling evidence. It was found that embracing technological innovations and fostering an innovative organizational climate are pivotal in bolstering pre-service teachers' digital proficiency. Furthermore, these two elements not only individually impact pre-service teachers' digital competences but also act as mutual mediators. This novelty framework offers valuable insights into comprehending complex dynamics associated with nurturing digital competency while providing actionable guidance for teacher educators.

Parson, L. (2025). **A Critical Discourse Analysis of Presidential Email Communications**. *Innovative Higher Education*, *50*(4), 1139-1168. https://doi.org/10.1007/s10755-024-09769-7
In this critical discourse analysis, I explored the language used in "campus update" emails sent to faculty, staff, and students to better understand how university presidents communicate via email to institutional stakeholders. Specifically, I explored the use of effective stance, epistemic stance, and intersubjectivity in this corpus of emails from higher education presidents in 2020 and 2021, because their use can indicate a speaker's commitment to what they are saying as well as their accountability and responsibility for their words (Marín-Arrese, 2009, Studies on English Modality. In honour of Frank R. Palmer, 111, (pp. 23–52). Peter Lang; 2011a, Critical Discourse Studies in Context and Cognition, 193–223; 2011b, Discourse Studies, 13(6), 789–797; 2015, Discourse Studies, 17(2), 210–225). Altogether, I sought to develop a better understanding of what and how university presidents communicate to faculty, students, and staff and, notably, how that informed and illuminated power in higher education.

Perla, L., Agrati, L. S., Vinci, V., & Amati, I. (2025). **Prevent the Refugee Students' Marginalisation. A Practitioner Research Study on Case-Based Method**. *European Journal of Education*, *60*(3), e70148. https://doi.org/10.1111/ejed.70148
This work focuses on the teacher training case-based for preventing the refugee students' marginalisation. Some key-elements in prevention of marginalisation in school are presented in the first part: the holistic descriptive model and the difficulty in resorting to practical-based strategies for teachers training. A professional research study conducted in 2023 at the post-graduate training course is presented in the second part. The study involved 110 teachers and investigated the effectiveness of case-based training, specifically, how much it favours teachers' ability to grasp the multilevel factors useful for avoiding the marginalisation of refugee students. The results provide arguments in favour of case-based teacher training in classroom reception. The case-based method

could help teachers to understand the complexity of the integration processes of refugee students within the classroom and to take on the necessary multilevel perspective. The analysis also reveals the prevalence of the student-teacher relational level.

Pili, S. M., & Baguio, J. B. (2025). **Structural Configuration and Restoring Power of Public Elementary School Teachers**. *Asian Journal of Education and Social Studies*, *51*(6), 950-958. https://doi.org/10.9734/ajess/2025/v51i62048
This study aimed to determine the significant influence of the domains of structural configuration and restoring power of public elementary school teachers in Talomo District, Division of Davao City. This study used the non-experimental quantitative research design utilizing the correlational method. The respondents of this study were the 131 teachers of public elementary schools in Talomo District, Division of Davao City, using universal sampling. The data analysis utilized the mean, pearson r and regression analysis. The findings disclosed that the degree of structural configuration of public elementary school teachers in terms of narrow-mindedness, accountability and participation were high and manifested oftentimes. Moreover, the level of restoring power of public elementary school teachers in terms of dignity, carefulness, optimistic, practical, and compassion were high and manifested oftentimes. It was found that there was a significant relationship between structural configuration and restoring power of public elementary school teachers. It revealed further that the domains of structural configuration significantly influence the restoring power of teachers. Based on the findings, it is recommended that school heads enhance the structural configuration and restoring power of public school teachers, particularly in identified gray areas. These include improving teachers' visibility and collaboration with co-teachers, encouraging openness to seeking help when needed, and promoting thoughtful decision-making practices. Strengthening these aspects may contribute to professional growth and increased effectiveness, ultimately supporting the goal of improving educational outcomes for learners.

Prosen, S., & Vitulić, H. S. (2025). **Does the School Context Play a Role in Teachers' Emotion Regulation and Mental Health? A Comparison of Teachers in Primary and Lower Educational Standard Schools**. *European Journal of Education*, *60*(3), e70163. https://doi.org/10.1111/ejed.70163
The research compares teachers working in regular primary schools with those working in special primary schools (for students with mild intellectual disabilities) regarding their emotion regulation strategies and their self-assessed mental health. The sample consisted of 114 Slovenian teachers from regular schools and 60 teachers from special schools, who participated by completing questionnaires on emotion regulation strategies and general health. The quantitative methodological approach was supplemented by qualitative data gathered via interviews with three teachers from each school context. When comparing the two school contexts, it was found that teachers in regular schools more often avoided specific emotion-triggering situations, while teachers in special schools tended to seek social support more frequently. Compared to regular school teachers, special school teachers reported more difficulties regarding their feeling of usefulness and self-confidence, experienced different emotions, and used a combination of emotion regulation strategies within a given emotion-triggering situation.

Radé, É., Rakotobe, M., Simon, C., & Traore, B. (2025). **Le vécu au travail des personnels du second degré, en 2023-2024**. *Note d'Information*, (25.47), 1-4. Consulté à l'adresse https://www.education.gouv.fr/le-vecu-au-travail-des-personnels-du-second-degre-en-2023-2024-450859
Au printemps 2024, la majorité des personnels du second degré se sentent respectés par les élèves et en sécurité dans les collèges ou lycées où ils ont exercé durant l'année scolaire. Un sur deux estime que la violence y est absente ou marginale.

Resnik, J. (2025). **Échanger en ligne pour améliorer l'éducation à la citoyenneté mondiale des futurs enseignants : le projet Global Sense (Allemagne, Belgique, France, États-Unis, Israël)**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wj
À une époque de montée de l'ethno-nationalisme et de la xénophobie, les enseignants endossent la responsabilité d'aborder des questions socio-politiques complexes et controversées pour le développement de l'esprit critique chez les élèves. Cet article présente un projet de recherche qui porte sur les échanges en ligne entre étudiants dans les métiers de l'enseignement de cinq pays, dans l'objectif d'améliorer l'éducation à la citoyenneté mondiale (ECM) de ces futurs éducateurs et de les préparer à introduire des questions d'ECM dans leurs classes. Les étudiants concernés ont conçu des projets pédagogiques sur les enjeux mondiaux, participé à des échanges en ligne et partagé leurs réflexions. L'analyse qualitative de ces données montre que les échanges ont laissé une forte impression, autour de trois thèmes principaux : les engagements politiques des participants, les approches pédagogiques et les identités professionnelles en tant qu'éducateurs. Ces résultats suggèrent que les échanges internationaux peuvent non seulement favoriser une sensibilisation au thème de la citoyenneté mondiale, mais aussi renforcer les identités professionnelles locales ainsi que la capacité à « affronter les incertitudes » en classe.

Salameh, B., Malak, Malakeh. Z., Obiedate, Khaldoon. M., & Bani-Hani, M. (2025). **Relationship between professional identity, professional self-concept, and academic burnout among palestinian fourth-year nursing students**. *International Journal of Educational Research*, *133*, 102743. https://doi.org/10.1016/j.ijer.2025.102743
This study explored the relationship between professional identity, professional self-concept, and academic burnout among Palestinian fourth-year nursing students in the West Bank.

Schneider & Snodgrass. (2025). **Understanding the Community College Concurrent Enrollment Instructor Credentialing Cliff from the High School Administrators' Perspective: A Qualitative Study Utilizing Principal-Agent Theory**. *Community College Journal of Research and Practice*, *49*(9), 557-567. https://doi.org/10.1080/10668926.2024.2336474
Roughly half of liberal arts concurrent enrollment (CE) instructors partnering with community colleges in some locations under the Higher Learning Commission's (HLC) accreditation are in jeopardy of losing their credentials due to an update of CE credentialing standards. High school administrators responsible for CE programming and affected by this credentialing update were interviewed for this research. Through the theoretical framework of principal-agent theory, along with comparing findings on the issue from the authors' previous study on the topic from the CE instructor perspective, the authors share findings around the thoughts, actions, and recommendations of the CE high school administrators on this issue. Implications for the field and recommendations for policy changes further research are offered.

Sleiman, N. A. H., Alsaleh, A. A., Abdel-Hameed, F. S., & Zayed, S. Y. (2025). **Examining educational leadership preparation and development programmes in the Gulf region: a comparative study of Bahrain, Kuwait and Qatar**. *London Review of Education*, *23*(1). https://doi.org/10.14324/LRE.23.1.13
This article is based on a comparative study that addresses signature pedagogies in leadership preparation and development policies and programmes in Kuwait, Qatar and Bahrain. The three countries initiated an educational reform movement in the early 2000s, which unfolded in several phases, and which included a significant focus on school improvement and leadership development. The development of current and aspiring school leaders, and the recognition of their crucial role in leading change and improving student learning, were some of the main pillars of the reform agendas. Studies conducted over the past 10 years provided multiple evidence that there still exist gaps in leadership preparation programmes, which impact their role in fulfilling the ambitious reforms. Using document analysis this study explores the potentials of significant signature pedagogies to enhance leadership professional learning programmes across the three countries. In 2013, Walker, Bryant and Lee studied the key features of educational leadership programmes in different countries by mainly addressing theoretical (research-based) foundation, coherence of content and programme profiles, including structure, methods and pedagogies. Their findings revealed major commonalities and differences between the three contexts and raised questions in relation to the limited prospects of signature pedagogies for the school leadership profession. Based on a critical examination of the findings and the limited prospects of signature pedagogies, the study offers insights and recommendations for an empirical study that sheds further light on the potential development of signature pedagogies for school leaders in the Gulf countries.

Stark, K., & Daulat, N. (2025). **Teacher well-being and teacher retention: establishing a link**. *Social Psychology of Education*, *28*(1), 147. https://doi.org/10.1007/s11218-025-10109-6
Recruiting and retaining a high-quality teacher workforce is a challenge for many of today's school leaders. One way to address this challenge is to understand the role of teachers' psychological experiences at work in their career decisions. Although substantial research has explored the role of negative psychological experiences (such as burnout) in teacher attrition, little research has explored how positive psychological experiences (such as a sense of well-being) may relate to teacher retention. In this exploratory study, we meet a gap in the literature by exploring relations between teacher well-being and teachers' career intentions, using the 6-factor Ryff Psychological Well-being Scale (1989). The results highlight that greater psychological well-being predicts increased likelihood that teachers will choose to stay at their current school and in the education field, but not in their current role. We discuss implications for teachers and school leaders.

Tsuyuguchi, K. (2025). **Impact of trust relationships on teacher well-being: Validation with longitudinal design and multilevel model**. *International Journal of Educational Research*, *133*, 102708. https://doi.org/10.1016/j.ijer.2025.102708
This study aimed to elucidate the impact of trust relationships surrounding teachers on teacher well-being. Three online surveys were administered to elementary and junior high school teachers in Japan between Fiscal Years 2021 and 2023 (the Japanese fiscal calendar runs from April 1st to March 31st of the following year). A total of 3153 teachers

who responded to all three surveys were included in the analysis. The school-focused longitudinal design required an analytical model that captured variance at both the individual and school levels over time. A multilevel model (generalized linear mixed model) for the longitudinal design was developed to fulfil these analytical requirements, and the subsequent analysis yielded the following findings. First, trust relationships surrounding teachers (student trust, parent trust, colleague trust, and principal trust) causally influenced teacher well-being (work engagement, depressive symptoms, and subjective well-being), even after controlling for individual, job, and school characteristics. Second, the establishment of a stable and high level of trust relationships surrounding teachers developed over several years and significantly enhanced teacher well-being. These results confirm the critical role of a sustained culture of trust in improving teachers' well-being. Third, principal trust exerted the most significant effect on work engagement, whereas colleague trust predominantly affected both depressive symptoms and subjective well-being. This study confirmed that teachers' well-being is decisively influenced by trust relationships with their surroundings, even in a longitudinal design. The findings suggest that principals should implement in-school training programs and a mentoring system to build trust among colleague and improve teachers' well-being.

Tutuncu, L., & Seeber, M. (2025). **The importance of international and national publications for promotion and the impact of recruitment policies**. *Higher Education*, *90*(1), 21-47. https://doi.org/10.1007/s10734-024-01306-x
Few studies explored whether publications in international peer-reviewed journals and publications in national journals, so-called local publications, affect academic promotion and whether their impact varies for different categories of scientists. Moreover, recruitment policies have mostly tried to incentivize international publications, but in recent years, some countries have promoted publications in national outlets, and the impact of such policies has not been explored. The goal of this article is to address these gaps considering all active Turkish full professors in Business and Economics (n = 1470) and the factors affecting the time to promotion. We found that international publications and, to a lesser extent, local publications predict significantly faster promotion, but with very different impact across categories of scientists. Moreover, local articles' impact on time-to-promotion increased after the introduction of new regulations that encouraged publication in national journals, whereas international publications became completely irrelevant.

UNESCO Office Dakar and Regional Bureau for Education in Africa. (2025). ***Rapport général de l'atelier régional sur les politiques enseignantes dans le Sahel*** (p. 31). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394696

van Ommeren, R., & Kjelaas, I. (2025). **Native-speakerism in the Norwegian subject teacher training program**. *Language Policy*, *24*(3), 499-524. https://doi.org/10.1007/s10993-025-09734-w
In this article, we examine the language policy that underlies the training of Norwegian teachers in Norwegian primary and lower secondary schools. Based on a critically oriented document analysis of current policy documents, we consider (1) the language competence required to work as a Norwegian teacher, and (2) what can be inferred from the required language competence about the principles for the recruitment and training of Norwegian teachers. We interpret our findings as an expression of an

underlying ideology of native-speakerism in Norwegian teacher training: both in principle and in practice, multilingual students with a different language proficiency profile than representatives of the majority population are in effect sidelined. We argue that a lack of diversity in teacher education due to this language policy has negative implications for the individual minority language student, for the Norwegian subject both in teacher education and in Norwegian schools, and—ultimately—for the society that teacher education is meant to serve. The model described privileges the majority's language competencies, thereby contributing to linguistic hierarchization and—not least—the reproduction of a native-speakerist language ideology that contradicts key principles and directions in the current school curriculum.

Varis, S., Tolvanen, A., Metsäpelto, R.-L., & Poikkeus, A.-M. (2025). **Student selection into initial teacher education in Finland: Predicting performance on the university entrance exam (VAKAVA) based on logical reasoning ability**. *International Journal of Educational Research*, *133*, 102745. https://doi.org/10.1016/j.ijer.2025.102745
This study examines the association between applicants' success in the 2021 university entrance exam for initial teacher education in Finland, known as the VAKAVA exam, and their logical reasoning abilities to provide evidence of criterion-related validity. The data consists of applicants' scores on the VAKAVA exam, which reflect their cognitive processing skills, and the abbreviated International Cognitive Ability Resource test (ICAR16; N = 403). The ICAR16 is a short multiple-choice assessment including four scales that estimate the cognitive skills of fluid reasoning and visual-spatial reasoning. The findings supported the proposed four-factor structure of the ICAR16 in the examined sample. However, the second-order factor, which was interpreted to encompass general logical reasoning ability measured by the ICAR16, was used in further statistical analysis. The results indicated that ITE applicants' logical reasoning abilities accounted for approximately 29% of their performance on the VAKAVA exam. These findings contribute to the literature on the validity of measures for student selection in teacher education programs.

Wang, T., & Tian, G. (2025). **Exploring Chinese Special Education Teachers' Emotion Labour Strategies and Characteristics**. *European Journal of Education*, *60*(3), e70177. https://doi.org/10.1111/ejed.70177
The teaching of students with disabilities and/or special educational needs (SEN) has always been an emotionally demanding profession, requiring intensive and toilsome emotional labour for special education teachers (SETs). Situated within SETs' emotional experiences in special schools in China, this study explored the strategies and characteristics of SETs' emotional labour. The findings revealed seven emotional labour strategies of three categories: habitual pretending and intentional restraining of surface acting, self-persuading and meaning-making of deep acting, natural releasing, deliberate outpouring and emotional isolation of genuine expression. These strategies have been influenced by two-pronged opposite and coexisting paradigms of cognition in Chinese special schooling, a charitable and caring paradigm shaped by Confucian benevolence values and a capability-defective cognitive paradigm shaped by traditional disability views and elitism values. Additionally, Chinese SETs' emotional labour displayed four obvious characteristics: long-time duration in emotional interactions, complexity in emotional performance, high uncontrollability in emotional feedback and contradictoriness in emotional states. The findings broadened a deeper understanding of SETs' emotional labour in Chinese sociocultural contexts.

Zeng, T., & Gao, X. (Andy). (2025). **Motivations of Novice and Experienced Female Chinese Applied Linguistics Researchers to Participate in Peer Reviews**. *European Journal of Education*, *60*(3), e70154. https://doi.org/10.1111/ejed.70154
This article reports on an exploratory inquiry into the experiences of novice and experienced female Chinese applied linguistics researchers in their roles as peer reviewers. Using an ecological perspective to situate self-determination theory, we interpret participants' accounts of reviewing, gathered through semi-structured interviews, in this inquiry. The analysis suggests that the mesosystem (i.e., institution) has the most noticeable impact on female Chinese novice researchers' motivations to conduct reviews. Under the pressure of performance evaluations and promotion requirements, female Chinese novice researchers tend to be extrinsically motivated to write reviews for journals. In contrast, experienced researchers are likely to be intrinsically motivated as they associate doing reviews with a sense of autonomy, competence, and relatedness. The identified differences in the motivations of novice and experienced researchers for acting as reviewers suggest that the internalisation of review motivation—from extrinsic to intrinsic—could be an important part of the participants' professional growth from novice to experienced researchers. This points to opportunities for further study to compare researchers across different disciplines and cultural backgrounds, assessing how their motivations to conduct reviews evolve through different stages of their careers.

Zhang, F., & Derakhshan, A. (2025). **On the role of academic buoyancy and interpersonal emotion regulation in predicting Chinese EFL teachers' psychological well-being**. *International Journal of Educational Research*, *133*, 102722. https://doi.org/10.1016/j.ijer.2025.102722
There is a shared belief among educators that second/foreign language (L2) teachers' mental states can shape the way they deliver educational content, interact with students, and manage the learning environment. Such mental conditions are affected by diverse personal and interpersonal attributes, as noted in the literature. However, the contributions of academic buoyancy and interpersonal emotion regulation (IER) to English as a foreign language (EFL) teachers' psychological well-being (PWB) have been barely studied. To bridge this gap, the current inquiry probed into 295 Chinese EFL teachers' perceptions about the association among IER, buoyancy, and PWB using three validated scales. The results of structural equation modeling (SEM) uncovered that there were strong interrelationships among EFL teachers' academic buoyancy, IER, and PWB. Regression analysis also displayed that both academic buoyancy and IER could jointly predict 48.86 % of variances in the teachers' PWB. The results of this study cast more light on the contributions of personal and interpersonal attributes to L2 teachers' psycho-affective states and mental health in teaching English.

Zhou, J., & Wong, J. L. N. (2025). **Student teacher learning in school-university partnerships: A systematic review**. *International Journal of Educational Research*, *133*, 102692. https://doi.org/10.1016/j.ijer.2025.102692
School-university partnerships provide essential environments in which student teachers (STs) learn to teach. Despite the increasing number of studies conducted within the partnership contexts, the impact of partnership practices on STs' learning processes or outcomes has not been examined in a systemic way. Drawing on growing empirical evidence, this systematic review synthesized findings from 67 articles published in peer-

reviewed journals between 2011 and 2024. We found that three interconnected levels of partnership interventions – the program & partnership level, the curriculum & pedagogy level, the activity & tool level – were simultaneously applied by teacher educators in the selected studies; we also identified changes in STs' dispositions and beliefs (knowing why), knowledges and understandings (knowing what), and performances and skills (knowing how). Based on the findings, a framework for understanding STs' learning in partnership contexts is further delineated, with implications for policymakers, practitioners, and researchers.

Zubeidat, I., Dallasheh, W., Khalil, A. E., & Masri, A. S. (2025). **Personal resilience among novice teachers and teacher-interns in Arab society in Israel: demographic, socio-emotional and educational characteristics**. *International Journal of Inclusive Education*, *29*(10), 1797-1822. https://doi.org/10.1080/13603116.2024.2303155
Unlike previous studies that have investigated teachers' personal resilience, the current study sought to examine its demographic characteristics and its relationships with socio-emotional and educational factors, and to consider differences in personal resilience between novice teachers and teacher-interns with low, medium and high levels of personal resilience. The participants were 298 novice teachers and teacher-interns in Arab schools in the north of Israel, who filled out questionnaires that included demographic details, and measures of personal resilience, subjective happiness, positive and negative affect, self-esteem, social anxiety, and teaching motivation. The findings indicated significant differences between the participants on the relationship between personal resilience and teaching status, teaching internship and teaching seniority. In addition, a significant positive correlation was found between personal resilience and subjective happiness, but negative correlations were found between personal resilience and negative affect, social anxiety, social fear, and social avoidance. Significant differences were found between three categories (low, medium and high personal resilience) of novice teachers and teacher-interns for social avoidance, social anxiety, general affect, negative affect, and teaching motivation. The authors concluded that workshops for novice teachers and teacher-interns should focus primarily on reducing their levels of social avoidance, social anxiety and social fears, raising their levels of subjective happiness, and increasing their personal resilience, which is crucial for their success, perseverance, and optimal integration into the education system during the first years of their work.

Numérique et éducation

Aboodi, R. (2025). **The Worrisome Potential of Outsourcing Critical Thinking to Artificial Intelligence**. *Educational Theory*, *75*(4), 626-645. https://doi.org/10.1111/edth.70037
As Artificial Intelligence (AI) keeps advancing, Generation Alpha and future generations are more likely to cope with situations that call for critical thinking by turning to AI and relying on its guidance without sufficient critical thinking. I defend this worry and argue that it calls for educational reforms that would be designed mainly to (a) motivate students to think critically about AI applications and the justifiability of their deployment, as well as (b) cultivate the skills, knowledge, and dispositions that will help them do so. Furthermore, I argue that these educational aims will remain important in the distant future no matter how far AI advances, even merely on outcome-based grounds (i.e., without appealing to the final value of autonomy, or authenticity, or understanding, etc.;

or to any educational ideal that dictates the cultivation of critical thinking regardless of its instrumental value). For any "artificial consultant" that might emerge in the future, even with a perfect track record, it is highly improbable that we could ever justifiably rule out or assign negligible probability to the scenario that (a) it will mislead us in certain high-stakes situations, and/or that (b) human critical thinking could help reach better conclusions and prevent significantly bad outcomes.

Acher, M., Gotlieb, A., Spieker, H., & Lyan, G. L. B. (2025, juillet 29). ***Teaching Reproducibility and Embracing Variability: From Floating-Point Experiments to Replicating Research***. Présenté à 2025 ACM Conference on Reproducibility and Replicability. https://doi.org/10.1145/3736731.3746162
Reproducibility is often discussed but rarely practiced in undergraduate computer science education. In this paper, we present the design, implementation, and evaluation of a 24-hour hands-on course entirely dedicated to reproducibility and variability in computational experiments. Taught to fourth-and fifth-year students at INSA Rennes in Fall 2024, the course combines scientific thinking, software engineering practices, and variability analysis. Students first explored the non-associativity of floating-point arithmetic as a reproducibility « Hello World » using Docker, GitHub Actions, and templated experimentation to analyze sources of variability across programming languages, compiler flags, and numerical precision. The second half of the course focused on reproducing and replicating actual research papers, including studies on large language models playing chess, home advantage in football during COVID-19, and energy efficiency across programming languages. Students successfully reproduced key results, identified subtle reproducibility issues such as changes in library defaults, and designed replications that extended or challenged original findings. We describe the course structure, pedagogical strategies, and lessons learned, including when students found reproducibility flaws in the instructor's own prior work. Our experience suggests that reproducibility and variability deserve a central place in computer science education and can be taught in a way that is both technically rigorous and scientifically engaging.

Adăscăliței, A. A. (2025). **Using Artificial Intelligence in universities**. In R. National Institute for Research & Development in Informatics – ICI Bucharest (Éd.), *Proceedings of the INTERNATIONAL CONFERENCEON VIRTUAL LEARNING – ICVL 2025VIRTUAL LEARNING – VIRTUAL REALITYVol. 20 / 2025* (p. 15-24). https://doi.org/10.58503/icvl-v20y202501
The purpose of this paper was to present the impact of Artificial Intelligence (AI) on education. AI helps education in at least two ways: by assisting the educational process and modifying pedagogy and educators' routine functions; and by enhancing the educational ambit and content, determining what kind of education is needed. In this article, the author explores the challenges and potentialities that AI offers in education. This paper, which has an extensive literature review, is conducted to reveal how Higher Education Institutions (HEIs) have benefited from AI and must be met to prepare for such powerful technology.

Ahamed, A.-K. C., Delamotte, E., Kerneis, J., & Priolet, M. (2021). **Pratiques numériques des étudiants mahorais. Approches contextuelles entre insularités et mobilités**. In É. Remond, L. Massou, P. Bonfils, & K. Berrada (Éd.), *Actes du colloque TICEMED 11 : L'enseignement supérieur au défi de la mondialisation ? (Marrakech, 28-30 mars 2018)* (p. 153). Consulté à l'adresse https://hal.univ-reunion.fr/hal-03557022

Cette étude exploratoire vise à documenter les pratiques numériques effectives des étudiants de l'enseignement supérieur mahorais dans leur grande diversité et l'interculturalité qui caractérise ce milieu. Nous le ferons en nous appuyant sur les conclusions des travaux antérieurs menés sur le même territoire (Delamotte, Delamotte et Jarre, 2018). Nous nous demanderons donc si l'université, tout comme l'école mahoraise, est une institution insulaire : des points de vue identitaire, social, culturel et cognitif. Plus précisément, nous nous interrogerons, avec les étudiants, sur les manières de faire avec (de) l'espace (Stock, 2007) en milieu numérique (Hayles, 2012). Notre travail s'appuiera sur les cadres théoriques de la pédagogie universitaire et des humanités numériques en régime métissé (plurilingue et pluriculturel), de l'industrialisation de l'éducation et de la culture informationnelle des étudiants. Nous proposons tout d'abord une revue de littérature concernant les pratiques des étudiants avant de préciser ce que peut signifier habiter une île au XXIe siècle. La partie méthodologique met l'accent sur la particularité de notre approche qui s'appuie sur un collectif étudiant-chercheur. Elle privilégie dans un premier temps l'aspect quantitatif à travers un questionnaire présenté en annexe. Nous présentons ensuite les premiers résultats de cette enquête en soulignant leurs limites et les perspectives qu'ils ouvrent.

Al-Abri, A. (2025). **Exploring ChatGPT as a virtual tutor: A multi-dimensional analysis of large language models in academic support**. *Education and Information Technologies*, *30*(12), 17447-17482. https://doi.org/10.1007/s10639-025-13484-x
This study explores the impact of ChatGPT, an advanced Large Language Model (LLM), as a virtual tutor in online education across five key dimensions: answering questions, writing assistance, study resources, exam preparation, and availability. Utilizing an experimental design, 68 undergraduate students from a public university interacted with ChatGPT over a 15-week academic semester. Data were collected through a validated questionnaire and analyzed using descriptive statistics, correlation analysis, and multiple regression. Findings reveal that students generally perceive ChatGPT as a valuable tool, with a high mean rating across dimensions such as exam preparation ($M = 3.38$, $SD = 1.26$) and availability ($M = 3.55$, $SD = 1.34$). The correlation analyses showed significant interdependencies between dimensions, with the highest correlation coefficient observed between writing assistance and exam preparation (Kendall's tau_b = 0.45, $p < 0.01$). Multiple regression analysis identified writing assistance ($\beta = 0.35$, $p < 0.01$) and exam preparation ($\beta = 0.40$, $p < 0.01$) as significant predictors of overall effectiveness. These findings suggest that ChatGPT's multiple functionalities do not operate independently but instead complement and reinforce each other, resulting in a more supportive and integrated learning environment. The study's findings highlight the transformative potential of LLMs to address the limitations of traditional Intelligent Tutoring Systems (ITSs) and offer a more comprehensive and personalized approach to online learning support. The study, however, identifies key areas for enhancing the LLM-based learning environment including the need for greater contextual engagement in learning materials and more comprehensive and personalized feedback mechanisms. The implications of these findings and future research directions are further discussed.

Al-Emran, M., Al-Sharafi, M. A., Foroughi, B., Al-Qaysi, N., Mansoor, D., Beheshti, A., & Ali, N. (2025). **Evaluating the influence of generative AI on students' academic performance through the lenses of TPB and TTF using a hybrid SEM-ANN approach**. *Education and Information Technologies*, *30*(12), 17557-17587. https://doi.org/10.1007/s10639-025-13485-w

The rapid rise of Generative AI in education has brought transformative potential. However, there is limited empirical insight into the factors influencing students' use of these tools and their impact on academic performance. Specifically, research has not thoroughly examined how task-technology fit and behavioral factors shape Generative AI usage. This study addresses these gaps by integrating the Task-Technology Fit (TTF) and the Theory of Planned Behavior (TPB) to develop a theoretical research model. Data were collected from university students through a structured survey, and the model was validated using a hybrid Structural Equation Modeling-Artificial Neural Network (SEM-ANN) approach. The results demonstrate that both task and technology characteristics significantly impact task-technology fit, positively influencing the use of Generative AI tools. Additionally, behavioral factors such as attitudes, subjective norms, and perceived behavioral control were found to strongly encourage Generative AI usage. Notably, the study confirms that these AI tools positively contribute to students' academic performance. At the same time, the study recognizes the ethical dilemmas tied to Generative AI, highlighting issues such as academic integrity, excessive dependence, and its potential effects on critical thinking. The findings offer valuable insights for various stakeholders and provide practical guidance for strategically integrating AI tools to enhance student outcomes.

Allaire, S. (2025). **Six affordances de l'intelligence artificielle générative en soutien à la coélaboration de connaissances**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-02
Ce texte présente le compte rendu d'une expérience de l'intelligence artificielle générative (IAg) dans le cadre d'un cours de deuxième cycle universitaire en sciences de l'éducation. Plus spécifiquement, il propose six façons d'utiliser l'IAg en soutien à une communauté d'élaboration de connaissances.

Allesant, H., Badache, I., & Impedovo, M. (2025). **Découverte de l'intelligence artificielle par des directeurs et directrices d'école primaire : une étude de cas dans deux circonscriptions marseillaises**. In A. pour le T. A. des Langues (Éd.), *Actes de l'atelier Intelligence Artificielle générative et ÉDUcation : Enjeux, Défis et Perspectives de Recherche 2025 (IA-ÉDU@CORIA-TALN 2025)* (p. 21-28). Consulté à l'adresse https://hal.science/hal-05205516
This paper presents a preliminary study on the engagement of primary school principals in Marseille (France) with artificial intelligence (AI), particularly generative AI, in the context of educational digitalization and the digital transformation of schools. The study analyzes a training workshop designed to introduce the historical evolution of AI, its foundations, and its pedagogical applications. The results, drawn from questionnaires administered before and after the intervention, reveal that despite participants' initially limited knowledge of AI technologies, they demonstrated growing interest in exploring these tools, primarily motivated by time-saving goals, while maintaining marked skepticism. The study underscores the need for contextualized training that combines knowledge and techno-pedagogical skills in AI with critical reflection. It also calls for addressing ethical considerations and governance frameworks to ensure responsible integration of AI in education.

Al-Okaily, M. (2025). **ChatGPT as an educational resource for accounting students: expanding the classical TAM model**. *Education and Information Technologies*, *30*(12), 16671-16685. https://doi.org/10.1007/s10639-025-13391-1

ChatGPT a state-of-the-art language model created by Open Artificial Intelligence (AI), can revolutionize education by improving student engagement and making learning more personalized. Consequently, the study's purpose is to evaluate the antecedent factors that the influence usage and continuance usage of a recently introduced AI-based tool called ChatGPT among accounting students for educational purposes based on expanding the classical Technology Acceptance Model (TAM). To achieve the study purpose, data were collected from 1025 accounting students in Jordanian higher education institutions and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results showed that perceived usefulness, perceived ease of use, COVID-19 concerns, and protection motivation significantly influence ChatGPT usage. The results also indicated that ChatGPT usage and peer influence significantly influence continuance intention to use ChatGPT. Furthermore, the study found that peer influence accuracy moderates most indirect relationships, while results demonstrated that peer influence does not moderate the relationship between the perceived ease of use and ChatGPT usage, and hence hypothesis 6a was rejected. Finally, the results hold different implications by providing insights for instructors, universities, and higher education institutions about the successful implementation of AI tools such as ChatGPT for educational purposes.

Al-Rousan, A. H., Ayasrah, M. N., Khasawneh, M. A. S., Obeidat, L. M., & Obeidat, S. S. (2025). **AI-Enhanced Gamification in Education: Developing and Validating a Scale for Measuring Engagement and Motivation Among Secondary School Students: Insights From the Network Analysis Perspective**. *European Journal of Education*, *60*(3), e70153. https://doi.org/10.1111/ejed.70153
This study aimed to develop and validate the Gamified AI Learning Engagement and Motivation Scale (GALEMS) to assess secondary school students' motivation and engagement within AI-enhanced gamified learning environments in Jordan. The research employed a sequential exploratory mixed methods design grounded in Self-Determination Theory and Flow Theory. In the qualitative phase, semi-structured interviews with 20 experts led to the identification of six key dimensions: Motivational Resonance, Learning Flow Experience, AI-Driven Social Dynamics, Cognitive Immersion, Reflective Metacognition and Learning Self-Efficacy. An initial 47-item scale was constructed and refined through expert validation. In the quantitative phase, 640 secondary students participated, with the sample split into two groups (n = 320 each) for Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA). EFA revealed a six-factor structure explaining 52.3% of the total variance, and CFA confirmed good model fit (CFI = 0.940, RMSEA = 0.067, SRMR = 0.039). The final scale included 33 items, all with factor loadings > 0.40. Internal consistency was confirmed (Cronbach's α and McDonald's ω > 0.70), and test–retest reliability over 2 weeks yielded high correlations (e.g., GALEMS total score r = 0.92, p < 0.001). Multi-group invariance testing demonstrated measurement consistency across gender (ΔCFI < 0.004). Exploratory Graph Analysis (EGA) with 1000 bootstrap samples confirmed the stability of the six-dimensional structure in 99.8% of iterations. GALEMS provides a culturally grounded, psychometrically sound tool for evaluating motivation and engagement in AI-based gamified learning environments.

Alzubi, A. A. F., Nazim, M., & Alyami, N. (2025). **Do AI-generative tools kill or nurture creativity in EFL teaching and learning?** *Education and Information Technologies*, *30*(11), 15147-15184. https://doi.org/10.1007/s10639-025-13409-8

AI-generative tools, such as ChatGPT, are argued to hold the potential to contribute to creative thinking in education broadly and second language education specifically. Nonetheless, existing literature underscores a critical requirement to elucidate the specific nature of this contribution among English as a Foreign Language (EFL) undergraduates utilizing ChatGPT. Therefore, the study aims to explore students' perspectives on how AI can contribute to creativity in an EFL learning context. The descriptive-survey method was used to achieve this objective. A convenient sample of (546) students responded to a perceptually closed-item questionnaire on how AI-generative tools contribute to creativity in the EFL context from university students' points of view. Also, a purposive sample sat for an online semi-structured interview to elicit information on the best practices to utilizing generative AI in nurturing creativity in learning English. The study revealed that ChatGPT uniquely contributes to enhancing creativity in EFL education. Students recognized the potential of these tools for conversation practice, idea generation, feedback on writing, vocabulary building, and collaborative learning. However, concerns were raised about over-reliance on AI, critical thinking, accuracy, and intellectual property. Differences in students' perceptions based on gender, specialization, and academic year were also noted, indicating varying levels of comfort and engagement with AI tools. This research demonstrates how AI can be strategically integrated to foster creativity while addressing critical challenges such as the balance between human and AI-generated input, the need for training on ethical AI use, and the importance of mitigating biases in AI-generated content. The findings suggest that promoting responsible and creative use of AI in EFL education—through comprehensive training, continuous monitoring, and collaboration among educators—can enhance learning outcomes, support innovation, and uphold academic integrity. This study offers new insights into how AI tools can effectively enrich the EFL learning experience while ensuring students remain active, critical participants in their learning process.

Amadiok, D., Abroampa, W. K., & Osei, E. O. (2025). **Correlates of factors on students' use behavior of E-learning management systems in Ghanaian Public Universities**. *Education and Information Technologies*, *30*(13), 19051-19073. https://doi.org/10.1007/s10639-025-13544-2

Numerous studies highlight that the high adoption rates of e-learning management systems (e-LMSs) are not necessarily matched by their actual use among students in sub-Saharan African higher education. Nevertheless, factors such as perceived behavioral control of e-LMS, teaching activities in e-LMS, administrative activities in e-LMS, and effectiveness of e-LMS appeared to have influenced students' use behavior of e-LMSs during the COVID-19 pandemic, although empirical research on these influences remains scarce. This study, therefore, empirically examined the impact of these factors on students' use behavior of e-LMSs in Ghanaian public universities. Data were collected through a paper-based questionnaire administered to 531 students across three public universities in Ghana. The data were coded, converted into a comma-delimited file, and analyzed using SmartPLS 3 software. Employing the partial least squares structural equation modeling, the study revealed insights into the factors driving e-LMS use in Ghanaian public universities. The results indicate that the independent variables explained 69.5% of the variance in students' use behavior of e-LMS. These findings suggest that higher education institutions (HEIs) should focus on activating key factors such as perceived behavioral control of e-LMS, teaching activities in e-LMS, administrative activities in e-LMS, and effectiveness of e-LMS to enhance students' use

behavior of these systems. This study provides HEIs with valuable insights and actionable recommendations to support effective e-LMS utilization.

Ariel, L., & Hayak, M. (2025). **The Paradox of AI in ESL Instruction: Between Innovation and Oppression**. *Educational Theory*, *75*(4), 646-660. https://doi.org/10.1111/edth.70034
This article critically examines Artificial Intelligence in Education (AIED) within English as a Second Language (ESL) contexts, arguing that current practices often deepen systemic inequality. Drawing on Iris Marion Young's Five Faces of Oppression, we analyze the implementation of AIED in oppressed schools, illustrating how students are tracked into the consumer track—passive users of AI technologies—while privileged students are directed into the creator track, where they learn to design and develop AI. This divide reinforces systemic inequality, depriving disadvantaged students of communicative agency and social mobility. Focusing on the Israeli context, we demonstrate how teachers and students in these schools lack the training and infrastructure to engage meaningfully with AI, resulting in its instrumental rather than transformative use. This "veil of innovation" obscures educational injustice, masking deep inequalities in access, agency, and technological fluency. We advocate for an inclusive pedagogy that integrates AI within English education as a tool for empowerment—not as a replacement for linguistic and cognitive development.

Arnal, C. (2025). ***Enseigner l'analyse des indicateurs de gestion du linéaire en lycée professionnel. La transmission des consignes en utilisant une capsule numérique.*** (Phdthesis, Université Toulouse Jean Jaurès). Consulté à l'adresse https://hal.science/tel-05178475
La recherche menée sur l'enseignement des indicateurs de gestion du linéaire en lycée professionnel s'inscrit dans une double perspective : comprendre comment une capsule vidéo pédagogique peut faciliter la transmission des consignes et analyser les pratiques enseignantes dans ce contexte. Fondée sur la théorie de l'action conjointe en didactique et la didactique clinique, l'étude s'appuie sur des méthodes mixtes pour évaluer les effets de la capsule vidéo pédagogique dans une classe de terminale baccalauréat professionnel Métiers du Commerce et de la Vente. Cette étude comparative avec deux groupes d'élèves permet d'évaluer les effets de cette capsule sur les élèves et sur l'enseignant. Les résultats montrent que l'utilisation de la capsule a des effets sur les perceptions, l'engagement dans les activités proposées en classe et les performances des élèves. Chez l'enseignant, l'utilisation de la capsule a des effets sur l'avancée du savoir et les stratégies professorales mises en œuvre. La capsule apparaît comme un outil intéressant pour l'enseignement en économie-gestion et dans d'autres contextes éducatifs, notamment en entreprise. Ce travail ouvre également la voie à des recherches futures sur les pratiques pédagogiques en gestion commerciale.

Aryani, A. T. D., & Rosyid, A. (2025). **Online learning engagement and operational accounting competencies: the moderating role of digital literacy**. *Education and Information Technologies*, *30*(13), 18277-18299. https://doi.org/10.1007/s10639-025-13517-5
The abrupt and swift transition to online remote learning due to COVID-19 left numerous Indonesian universities in a state of disarray, owing to the challenge of adapting to remote teaching and learning with only some or minimal prior experience. This is because many universities in Indonesia are traditional institutions that typically conduct their learning activities in-person, on a physical campus. This study aims to empirically

determine the effects of student engagement in online learning and digital literacy on operational accounting competencies. Additionally, it seeks to determine whether digital literacy could act as a moderating variable, enhancing or diminishing the impact of student engagement in online learning on operational accounting competencies for fifth and seventh-semester Accounting Sharia students at Universitas Islam Negeri (UIN) KH Abdurrahman Wahid Pekalongan, Indonesia. Guided by Situated Learning Theory, this research highlights the role of authentic, contextual learning environments in developing competencies. The study generates survey data using a pre-designed questionnaire completed by 113 students. Data are analyzed using descriptive analyses and PLS-SEM (Partial Least Square-Structural Equation Modelling). It can be concluded that digital literacy and student engagement have a significantly positive effect on operational accounting competencies. However, the results indicate that digital literacy does not strengthen or lessen the relationship between student engagement in online learning and operational accounting competencies. These findings underscore the importance of Situated Learning Theory in emphasizing practical experience, collaboration, and participation in real-world accounting activities, which are crucial components of effective learning in operational accounting.

Ateş, H., & Gündüzalp, C. (2025). **The convergence of GETAMEL and protection motivation theory: A study on augmented reality-based gamification adoption among science teachers**. *Education and Information Technologies*, *30*(12), 17361-17403. https://doi.org/10.1007/s10639-025-13480-1
This study examines the determinants of science teachers' intentions to adopt augmented reality-based gamification through an integrated framework that merges the General Extended Technology Acceptance Model for E-Learning (GETAMEL) with Protection Motivation Theory. The research investigates how cognitive factors, including perceived usefulness and ease of use, interact with motivational constructs such as self-efficacy, anxiety, and perceived threats to influence adoption intentions. Furthermore, the study explores the moderating effect of professional status (pre-service vs. in-service teachers) to identify variations in adoption patterns. A structural equation modeling approach was employed to validate the proposed hypotheses using a diverse sample of 1,634 science teachers. The findings demonstrate that cognitive evaluations, motivational drivers, and social influences jointly shape teachers' intentions to adopt augmented reality-based gamification. Notably, in-service teachers show a stronger response to motivational factors, while pre-service teachers are more affected by perceived barriers. These results offer theoretical contributions to educational technology literature by integrating cognitive, motivational, and social perspectives. Additionally, the study provides practical recommendations for developing targeted professional development programs and strategies to foster augmented reality-based gamification adoption across diverse teaching contexts.

Ateş, H., & Polat, M. (2025). **Leveraging augmented reality and gamification for enhanced self-regulation in science education**. *Education and Information Technologies*, *30*(12), 17079-17110. https://doi.org/10.1007/s10639-025-13481-0
This study investigates the efficacy of integrating augmented reality (AR)-based gamification with self-regulated learning (SRL) strategies to enhance middle school students' academic performance, engagement, satisfaction, and self-efficacy in science education. Employing immersive AR technologies alongside gamification elements, this approach is designed to cultivate an engaging and learner-centered

environment that promotes essential SRL competencies including goal-setting, self-monitoring, and reflective thinking. Utilizing an experimental research design, the study engaged 60 middle school students who were allocated into two groups: one experiencing self-regulated AR-based gamification and the other experiencing traditional AR-based gamification without self-regulation components. The findings reveal that students in the self-regulated AR-based gamification group demonstrated significantly enhanced levels of academic achievement, engagement, self-efficacy, and overall satisfaction compared to their peers in the traditional group. These outcomes suggest that the strategic integration of AR-based gamification with SRL strategies not only fosters significant improvements in educational performance but also enriches the learning experience, thereby providing critical insights for the development of innovative educational technologies that support comprehensive understanding and foster student autonomy in science education.

Azeem, S., & Abbas, M. (2025). **Personality correlates of academic use of generative artificial intelligence and its outcomes: does fairness matter?** *Education and Information Technologies*, *30*(13), 18131-18155. https://doi.org/10.1007/s10639-025-13489-6
The study examined the association of big five personality traits (i.e., conscientiousness, openness to experience, and neuroticism) with use of Generative Artificial Intelligence (GenAI) among university students. It also examined the moderating role of perceived fairness in grading on the relationships of personality traits with GenAI usage. Further, the study examined the relationship of GenAI use with academic self-efficacy, learned helplessness, and academic performance. Finally, it explored the mediating role of GenAI use in the relationships of openness to experience, conscientiousness, and neuroticism with students' outcomes. Data were collected using a three-wave time-lagged online survey from a sample of 326 students enrolled in three Pakistani universities. Established scales from prior studies were used to measure all study variables and academic performance was measured through students' CGPA. Findings indicate that conscientiousness is negatively related to GenAI use. Findings also indicate that academic use of GenAI negatively relates to students' academic self-efficacy, and academic performance, and positively relates to learned helplessness. In addition, the study identifies some role of perceived fairness in grading although the effect was modest. Furthermore, use of GenAI mediated the effects of conscientiousness on academic outcomes. Finally, the theoretical and practical implications suggest that universities may take prompt action to regulate GenAI use, alongside concerted efforts to balance the potential benefits and repercussions of its use among students.

Ba, S., Zhan, Y., Huang, L., & Lu, G. (2025). **Investigating the impact of ChatGPT-assisted feedback on the dynamics and outcomes of online inquiry-based discussion**. *British Journal of Educational Technology*, *56*(5), 1710-1734. https://doi.org/10.1111/bjet.13605
This study examines the impact of feedback assisted by generative artificial intelligence (GAI) on the dynamics and outcomes of online inquiry-based discussions (IBDs) in a higher education context. Specifically, it compares two distinct feedback types powered by GAI: idea-oriented and task-oriented. The study involved 105 preservice teachers from a public university in Northwestern China. Participants were pre-assigned into two classes, each receiving different types of GAI-assisted feedback during IBDs. A collection of data, including discussion transcripts, survey responses, and IBD performance, was collected and analysed with statistical methods and epistemic network analysis. The results demonstrated that idea-oriented feedback significantly enhanced cognitive presence

and led to higher engagement in the exploration of different ideas and opinions. However, this type of feedback also induced greater negative emotional responses. In contrast, task-oriented feedback promoted more social interaction and group cohesion, though it was less effective in fostering higher-order thinking. The findings suggest that GAI tools can provide meaningful support in online learning settings, but the type of feedback must be carefully aligned with the desired learning outcomes. This research offers insights for optimizing GAI-assisted feedback mechanisms in higher education. Practitioner notes What is already known about this topic Feedback is key to fostering collaborative problem-solving and critical thinking in online inquiry-based discussions (IBDs). The Community of Inquiry (CoI) model emphasizes the interaction of cognitive, social, and teaching presence for worthwhile learning, with feedback playing a crucial role in regulating these presences. Generative artificial intelligence (GAI) tools have shown potential for providing real-time and personalized feedback. What this paper adds This study examines two types of GAI-assisted feedback (idea-oriented and task-oriented) and their impact on the dynamics and outcomes of online IBDs. Idea-oriented feedback significantly enhances cognitive presence and promotes deeper inquiry, while task-oriented feedback fosters social presence and group cohesion. GAI-assisted feedback, when aligned with specific learning objectives, can meaningfully promote IBD effectiveness. Implications for practice and/or policy Educators should match the type of GAI-assisted feedback to specific learning objectives, such as fostering critical thinking or enhancing group cohesion. Idea-oriented feedback may contribute to cognitive strain and negative emotions, so instructors should monitor and provide support to balance cognitive engagement with emotional well-being. GAI tools can enhance feedback efficiency in large online classes, but they must be carefully designed considering learners development needs.

Badache, I., & Colombo, E. (2025). **Repenser les pratiques d'enseignement et d'apprentissage par la robotique éducative : le cas du robot socio-émotionnel Buddy**. In A. pour le T. A. des Langues (Éd.), *Actes de l'atelier Intelligence Artificielle générative et ÉDUcation : Enjeux, Défis et Perspectives de Recherche 2025 (IA-ÉDU@CORIA-TALN 2025)* (p. 98-110). Consulté à l'adresse https://hal.science/hal-05205521
This paper explores the use of Buddy in educational and learning contexts, focusing on two key uses. First, at the National Higher Institute of Teaching and Education in Aix-Marseille, with future teachers and digital pedagogy students. Second, as an emotional and artistic mediator in art learning. The paper examines how Buddy can enhance teaching practices by stimulating creativity, interaction, and emotional and educational support. Acting as a mediator between the learner and their environment, particularly in storytelling, art, and informational assistance, Buddy highlights the potential of robotics to develop inclusive pedagogical practices where art and technology converge to promote learning and emotional resilience. Through these experiments, Buddy serves as a learning catalyst, opening avenues for interdisciplinary research involving computer engineering, psychology, and education. The current technical limitations of Buddy offer opportunities to design educational scenarios that demystify artificial intelligence, shedding light on its biases and limitations.

Bajger, T., Khoshnaw, D., Ali, K. A. A., & Mousa, K. M. (2025). **Impact of Digital Transformation on Rehabilitating Higher Education Infrastructure in Conflict-Affected Settings**. *European Journal of Education*, *60*(3), e70151. https://doi.org/10.1111/ejed.70151

The rapid growth of digital technologies has revolutionised various sectors globally, offering new opportunities for development and recovery. However, rehabilitating higher education infrastructure in war-torn settings presents significant challenges, often exacerbated by limited resources and ongoing crises. Despite the critical need for practical solutions, the literature on the role of digital transformation in addressing these challenges remains insufficient. This study addresses the critical research question: How can digital transformation effectively contribute to the rehabilitation of higher education infrastructure in conflict-affected areas? This research investigates the impact of digital innovation on educational outcomes and infrastructure rebuilding by bridging the gap in the existing literature. It explores the potential of digital technologies to enhance educational accessibility, quality and sustainability in conflict zones through an innovative SWOT analysis focusing on real-world applications. The findings underscore the importance of digital solutions in improving access to education, enhancing learning quality and supporting the recovery of educational infrastructure. This study provides valuable insights for policymakers, educators and development practitioners, highlighting strategies for fostering educational resilience and sustainability in post-conflict areas.

Barkati, M., Kiyanfar, Z., Azari Noughabi, M., & Ershadi, F. (2025). **Contributions of self-efficacy, L2 grit and digital literacy to informal digital learning of English: A structural equation modelling approach**. *British Journal of Educational Technology*, *56*(5), 2183-2201. https://doi.org/10.1111/bjet.13547
Despite the proliferation of studies on computer-assisted language learning, scant research attention has been paid to informal digital learning of English (IDLE) and its antecedents. Therefore, the current study aimed to investigate whether Iranian EFL learners' L2 grit, digital literacy and self-efficacy contributed to their IDLE. A total of 313 EFL learners (96 males, 217 females), selected through snowball sampling, completed an electronic survey. Structural equation modelling (SEM) was employed to analyse the relationships between the main variables. The results of SEM analysis revealed that EFL learners' digital literacy, L2 grit and self-efficacy significantly influenced their engagement with IDLE activities. In addition, the findings revealed that digital literacy was the strongest predictor of EFL learners' IDLE. These findings highlight the significance of digital literacy skills coupled with positive personality-based and cognitive variables in forming learners' tendency to learning English in informal digital settings. The study implied that positive characteristics could enhance cognitive and psychological resources, leading to positive outcomes (ie, IDLE). Finally, implications were offered. Practitioner notes What is already known about this topic Gritty language learners with high self-efficacy are more likely to master language skills inside and outside the classroom. Digital literacy can increase learners' tendency to learn English through digital platforms. What this paper adds Digitally literate EFL learners with high levels of grit and self-efficacy practise IDLE activities. Digital literacy plays a more important role in IDLE compared to personality-related and cognitive factors. Implications for practice EFL teachers are recommended to model using digital platforms for language learning in out-of-class digital settings. EFL teachers can increase EFL learners' grit and self-efficacy through interventions to enhance their engagement in IDLE-embedded activities.

Baron, N. S. (2025, août 19). **Écran ou papier… pourquoi tourner une page vaut mieux que cliquer**. https://doi.org/10.64628/AAK.c4reqmk3y

Le toucher joue un rôle important dans le développement des compétences en lecture et en écriture. C'est ce que disent les élèves… et la recherche !

Başgül, M., & Coştu, B. (2025). **The effect of Education 4.0 tools on 7th grade students' learning outcomes and attitudes in the electrical circuits unit**. *Education and Information Technologies*, *30*(11), 15645-15689. https://doi.org/10.1007/s10639-025-13404-z
Education 4.0 represents a visionary approach to the future of education, aiming to enhance teaching and learning through advanced technologies. The aim of this research is to determine student attitudes toward the use of Education 4.0 tools in the 7th-grade Science course Electrical Circuits unit. To achieve this, an attitude test was developed to evaluate the integration of Education 4.0 tools into the Science curriculum, and student attitudes were assessed using this test. A « quasi-experimental design with pre-test and post-test control group, » one of the quantitative research methods, was used in the study. The research involved 41 seventh-grade students from one public secondary schools in Turkey, with 21 students in the experimental group and 20 in the control group. The « Attitude Scale toward the Use of Education 4.0 Tools in Science Teaching, » developed by the researchers, was used as the data collection instrument. The experimental phase lasted four weeks (16 lesson hours), during which the experimental group engaged in activities involving Education 4.0 tools, while the control group followed the curriculum-prescribed activities. The t-test results of the collected data revealed a statistically significant difference between the post-test scores of the experimental and control groups, with the experimental group showing more favorable outcomes. The research findings reveal that students exhibit a positive attitude toward the use of Education 4.0 tools in science education. These results suggest that the integration of Education 4.0 into science education enhances students' understanding of abstract electrical concepts such as electric current, potential difference, resistance, and Ohm's Law, improves knowledge retention, and transforms the learning process into an interactive and discovery-oriented experience. Furthermore, Education 4.0 tools have contributed to the improvement of learning outcomes by promoting student engagement and make learning processes more efficient by improving students' ability to use technology effectively.

Bauer, E., Richters, C., Pickal, A. J., Klippert, M., Sailer, M., & Stadler, M. (2025). **Effects of AI-generated adaptive feedback on statistical skills and interest in statistics: A field experiment in higher education**. *British Journal of Educational Technology*, *56*(5), 1735-1757. https://doi.org/10.1111/bjet.13609
This study explores whether AI-generated adaptive feedback or static feedback is favourable for student interest and performance outcomes in learning statistics in a digital learning environment. Previous studies have favoured adaptive feedback over static feedback for skill acquisition, however, without investigating the outcome of students' subject-specific interest. This study randomly assigned 90 educational sciences students to four conditions in a 2 × 2 Solomon four-group design, with one factor feedback type (adaptive vs. static) and, controlling for pretest sensitisation, another factor pretest participation (yes vs. no). Using a large language model, the adaptive feedback provided feedback messages tailored to students' responses for several tasks on reporting statistical results according to APA style, while static feedback offered a standardised expert solution. There was no evidence of pretest sensitisation and no significant effect of the feedback type on task performance. However, a significant medium-sized effect of feedback type on interest was found, with lower interest

observed in the adaptive condition than in the static condition. In highly structured learning tasks, AI-generated adaptive feedback, compared with static feedback, may be non-essential for learners' performance enhancement and less favourable for learners' interest, potentially due to its impact on learners' perceived autonomy and competence.

Bozkuş, K., & Canoğulları, Ö. (2025). **Exploring the mediating roles of self-control, management, and meaningful learning self-awareness in the relationship between academic self-discipline and GAI acceptance**. *Education and Information Technologies*, *30*(13), 18975-18995. https://doi.org/10.1007/s10639-025-13506-8
This study investigated the relationships between academic self-discipline, self-control and management, meaningful learning self-awareness, and generative artificial intelligence (GAI) acceptance among 597 teacher candidates at nine Turkish universities. A serial mediation model was proposed, hypothesizing that academic self-discipline influences GAI acceptance indirectly through self-control and management and meaningful learning self-awareness. Data were collected using four established scales. Structural equation modeling, employing robust maximum likelihood estimation due to non-normality of the data, revealed an excellent fit between the hypothesized model and the data. Results supported the serial mediation model: academic self-discipline positively predicted self-control and management, which in turn positively predicted meaningful learning self-awareness, which subsequently positively predicted GAI acceptance. The findings highlight the important roles of self-control, management and meaningful learning in shaping teacher candidates' acceptance of GAI. Implications for teacher education programs and future research are discussed.

Brugha, M., Afzal, N., Emerusenge, A. P., Zazai, R., & Nagol, E. (2025). ***EdTech for Climate Resilience: A Rapid Evidence Review***. Consulté à l'adresse EdTech Hub website: https://doi.org/10.53832/edtechhub.1113
This Rapid Evidence Review provides a synthesis of evidence related to the use of educational technology for building climate resilience within education systems in low- and middle-income countries. The primary objective of the review is to provide educational stakeholders with an overview of how technology could be effectively leveraged in these contexts, highlighting key design considerations for and potential barriers to effective implementation. The review looked at evidence generated between 2014 and 2025 on how EdTech has or could be used to build climate resilient education systems.

Burbules, N. C. (2025). **Artificial Intelligence in Education: Use it, or Refuse it?** *Educational Theory*, *75*(4), 597-602. https://doi.org/10.1111/edth.70038
This symposium revolves around two shared questions: First, how should educators view artificial intelligence (AI) as an educational resource, and what contributions can philosophy of education make toward thinking through these possibilities? Second, where is the future of AI foreseeably headed, and what new challenges will confront us in the (near) future?

Butzbach, M. (2025, juillet 28). **Les enseignants et l'IA : « On a survécu à Wikipédia, on survivra à Chat GPT »**. Consulté 29 août 2025, à l'adresse Alternatives Economiques website: https://www.alternatives-economiques.fr/enseignants-lia-on-a-survecu-a-wikipedia-on-survivra-chat-g/00115746

[Mon métier et l'IA] Alors que les profs considèrent être peu formés sur ces questions, 36 % d'entre eux utilisent les outils de l'intelligence artificielle. Et c'est toute leur manière d'enseigner qui est remise en cause.

Cai, Y., & Tian, S. (2025). **Student translators' web-based vs. GenAI-based information-seeking behavior in translation process: A comparative study**. *Education and Information Technologies*, *30*(13), 18997-19025. https://doi.org/10.1007/s10639-025-13523-7
The rise of Generative AI (GenAI) tools, such as ChatGPT, is transforming translators' information-seeking behavior (ISB), traditionally centered on web search. This study compares student translators' ISB in web-based and GenAI-driven contexts using a literature-informed ISB analytical framework, developed from a systematic review of existing ISB theories and models, with a focus on time-related, query/prompt-related, and process-related aspects. To compare these two conditions, twenty-four student translators completed two tasks under each condition. Their on-screen activities were recorded and analyzed using a comparative approach, which involved evaluating differences in the three aforementioned aspects. The data were collected through screen recording, coded using NVivo, and analyzed using mixed-effects regression models to assess behavioral patterns and determine how these aspects vary between web-based and GenAI-based ISB. Findings reveal distinct patterns: 1) Time-related: GenAI-based ISB takes longer, with extended information-seeking durations, whereas web-based ISB is quicker and more efficient; 2) Query/prompt-related: Both focus on source comprehension, but GenAI-based ISB addresses complex, segment-level tasks with broader objectives, whereas web-based ISB handles immediate, word-level issues with narrower goals; 3) Process-related: GenAI-based ISB is dynamic, involving frequent switching with less depth, while web-based ISB is more linear and structured, supporting deeper exploration within online resources. Overall, GenAI-based ISB is dynamic and interactive, allowing broader exploration of translation tasks, yet it may sacrifice depth and lead to increased reliance. In contrast, web-based ISB is more structured and precise, well-suited for word-level tasks, but lacks the flexibility for more complex translation challenges. Theoretically, this study extends ISB frameworks by demonstrating GenAI's dynamic yet reliance-prone model, while pedagogically, it highlights the need for balancing GenAI and web-based tools and fostering critical evaluation through multi-step tasks, error analysis, and cross-verification.

Campo, L., Delgado, N., Etxabe-Urbieta, J. M., Kanso, H., & Gueye, M. L. (2025). **Relationship Between the Use of ChatGPT and Plagiarism in Higher Education: The Influence of Gender, Age and Previous Academic Results**. *Innovative Higher Education*. https://doi.org/10.1007/s10755-025-09830-z
Abstract While artificial intelligence (AI), exemplified by tools like ChatGPT, has undoubtedly ushered in numerous advantages within the realm of education, its implementation also underscores a range of constraints and challenges. The objective of the current study is to examine the association between the frequency of the use of ChatGPT for academic purposes and the extent of plagiarism, while also investigating the influence of personal variables such as gender, age, academic year, and educational background measured by previous results. To achieve this, a sample comprising 503 university students from Spain was recruited, and they were asked to complete a set of questionnaires designed to assess the constructs mentioned. The findings indicated that there is a correlation between the frequency of use of ChatGPT and Plagiarism, but causality was not found. Besides, a moderator effect of age and

academic year on the relationship between the use of ChatGPT and Plagiarism was found. These findings suggest the need to address certain factors of plagiarism among higher education students, such as awareness of plagiarism or the management of perceptions about the academic requirements.

Cao, J., & Luo, H. (2025). **Combining virtual reality and EEG biofeedback for enhanced EFL learning: a sociocultural approach**. *Education and Information Technologies*, *30*(11), 15299-15328. https://doi.org/10.1007/s10639-025-13348-4
This study investigated the effectiveness of a Virtual Reality (VR) intervention with integrated Electroencephalography (EEG) biofeedback (VR-EEG) in enhancing English as a Foreign Language (EFL) learner proficiency compared to a traditional classroom setting. Learners (N = 60) were randomly assigned to either the VR-EEG group or the traditional classroom group. Both groups received 60 h of EFL instruction over four weeks. The VR-EEG group participated in VR learning environments with real-time adjustments based on their EEG data, while the traditional classroom group received conventional EFL instruction. Pre-test and post-test assessments evaluated EFL proficiency in vocabulary knowledge, grammar accuracy, speaking fluency, and learner engagement. The results revealed that the VR-EEG group demonstrated a statistically significant improvement in overall EFL proficiency, particularly in vocabulary acquisition, compared to the traditional classroom group. Additionally, the VR-EEG group reported higher levels of engagement. EEG data analysis for the VR-EEG group provided preliminary insights into the neural correlates associated with performance and engagement within the VR environment, specifically examining how alpha and beta wave activity relate to attention and cognitive processing during language learning tasks. This analysis explored the potential of EEG biofeedback to optimize learning by dynamically adjusting task difficulty and providing personalized support within the learner's Zone of Proximal Development. These findings suggest that VR-EEG technology has promising potential as a method for enhancing EFL learner proficiency and warrants further investigation.

Cao, X., Huang, Z., Wu, J., Li, M., & He, T. (2025). **Unraveling cyberbullying dynamics among K-12 students: Latent profile analysis and artificial intelligence**. *Education and Information Technologies*, *30*(12), 16601-16631. https://doi.org/10.1007/s10639-025-13445-4
Cyberbullying has garnered growing attention, yet existing research lacks nuanced insights into the dynamics of students' cyberbullying profiles and the associated risk factors across multiple domains. This study aims to (1) investigate K-12 students' cyberbullying profiles, (2) develop an AI predictive model for cyberbullying roles, and (3) examine the relationship between cyberbullying profiles and risk factors across four domains: information and communication technology (ICT) profiles, moral development, normative social influence, and demographic characteristics. Latent profile analysis of 4721 students identified three distinct cyberbullying profiles: "Cyber bully-victims", "Cyber passive and defenders", and "Cyber victims and bystanders". Through AI-based model competition experiments, we identified 13 key predictors and constructed a robust Random Forest model that accurately predicts profiles. The results reveal that information dissemination literacy emerges as the most prominent predictor, and students with higher literacy tend to fall into "Cyber bully-victims" or "Cyber victims and bystanders". Additionally, students with excessively high moral emotions or difficulties in making moral judgments about harm are more prone to be "cyber victims and bystanders". These

findings reinforce a deeper understanding of cyberbullying profiles and their antecedents among K-12 students, and offer researchers an AI-based methodological approach for robust prediction of students' cyberbullying in practice.

Carton, C., & Ghyselen, A. (2024). ***Intégrer l'IA générative dans la conception des évaluations***. Consulté à l'adresse https://hal.science/hal-05165710
L'ouverture de ChatGPT au grand public fin 2022 et la généralisation de l'usage des systèmes d'intelligence artificielle générative (IAG) ont suscité des questions dans le monde enseignant : si un outil peut instantanément produire une réponse cohérente à des devoirs, comment évaluer les étudiants ? Pour répondre localement à ces questions, l'Université Le Havre Normandie (ULHN) a mis en place en 2023 un groupe de travail sur l'Intelligence Artificielle, qui s'est rapidement associé à un projet ANR, le projet NORMANTHIIA, avec pour objectif de développer la littératie sur le sujet à l'université. Dans le cadre de cette initiative, l'équipe d'appui pédagogique de l'ULHN a constaté une forte demande d'éclaircissements sur les opportunités et les menaces que peuvent représenter les IAG. En particulier, la question de savoir comment évaluer tout en évitant ou en intégrant les IAG est abordée lors des événements et formations proposés par ce groupe de travail. Cette initiative s'inscrit dans un contexte général, et le sujet de l'IA dans l'enseignement supérieur a gagné en popularité aussi bien dans les médias, la recherche, ou les cellules d'accompagnement pédagogiques. Afin de replacer cette question dans le contexte des sciences de l'éducation et du champ de recherche sur l'IA appliquée à l'éducation (IAEd), nous proposons une étude bibliographique sur l'évaluation et l'IAG. Nous nous intéresserons d'abord aux problématiques liées à ce sujet, puis nous aborderons les compétences à évaluer ainsi que les modalités explorées.

Castaño-Muñoz, J., Moreno-Morilla, C., Reina-Parrado, M., & Lopez-Cobo, I. (2025). **Unheard voices: Identifying aspects for an inclusive digital education through the lens of low-income contexts schools**. *Education and Information Technologies*, *30*(13), 17909-17930. https://doi.org/10.1007/s10639-025-13490-z
This study explores the perceptions, experiences and challenges of schools located in disadvantaged areas regarding the integration of digital technologies in their functioning. Through eight case studies, in which principals, teachers and students were involved, we identified the main challenges that these schools face every day, which were grouped into three areas: a) breaking the hidden digital divide, b) teacher training for culturally responsive teaching, and c) use of technology as a bridge between home and schools. The results show that, in order to prevent digitalisation from increasing the existing divide among schools of different socioeconomic and cultural levels, it is necessary to design inclusive policies for educational digital transformation that take into account the particularities and voices of these schools.

Cerisier, J.-F. (2025). **Pratiques numériques informelles juvéniles et réussite scolaire en France**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wc
Si le rôle de l'École et des familles est central dans l'éducation, les apprentissages des jeunes s'enrichissent d'expériences numériques informelles effectuées dans les domaines variés : cognitif, social, culturel ou citoyen. Ces apprentissages expérientiels, volontairement invisibilisés par les élèves, sont ignorés par l'École, alors même qu'ils concourent à la réussite scolaire et sont porteurs d'iniquité sociale. Leur importance était déjà décrite à l'arrivée de la télévision mais ils prennent des formes nouvelles avec les

ressources et services numériques intensément utilisés par les jeunes. L'École se doit désormais de valorisent les apprentissages numériques informels et de lutter contre les inégalités sociales numériques.

Chai, H., Xue, R., Guo, H., & Fu, W. (2025). **The Effect of Epidemic Stress Perception of COVID-19 on Problematic Internet Use Among Chinese College Students: The Mediating Role of Basic Psychological Needs Satisfaction and Core Self-Evaluation**. *European Journal of Education*, *60*(3), e70207. https://doi.org/10.1111/ejed.70207
To explore the mediating effect of basic psychological needs satisfaction and core self-evaluation on the relationship between epidemic stress perception and problematic internet use among Chinese college students. A total of 597 college students were investigated by epidemic stress perception of COVID-19 questionnaire, basic psychological needs satisfaction scale, core self-evaluation scale and core self-evaluation scale. (1) The four variables of epidemic stress perception, basic psychological needs satisfaction, core self-evaluation and problematic internet use were significantly correlated with each other. (2) Basic psychological needs play a mediating role between epidemic stress perception and problematic internet use among college students. (3) Core self-evaluation plays a mediating role between epidemic stress perception and problematic internet use among college students. (4) There is a chain of multiple mediating effects between basic psychological needs satisfaction and core self-evaluation on the relationship between epidemic stress perception and problematic internet use among college students. The epidemic stress perception of college students can not only be a result of the epidemic but also of the problematic internet use among college students.

Chan, N. N., Bailey, R. P., Tan, M. H. J., Dipolog, G. F., Tan, G. W. H., Motevalli, S., … Ang, C. S. (2025). **Generative artificial intelligence in a VUCA world: the 'Lived Experiences' of Southeast Asian teachers' use of AI in higher education**. *International Journal of Educational Research*, *133*, 102733. https://doi.org/10.1016/j.ijer.2025.102733
This study explores how generative intelligence (GenAI) is used in teaching and learning, assessments, and research at Southeast Asian (SEA) universities. Using hermeneutic phenomenology as the philosophical underpinning and research methodology, SEA teachers' 'lived experiences' of using ChatGPT and other GenAI tools were uncovered. 38 teachers from 10 SEA countries participated in 11 focus group interviews over five months. Three themes emerged: Learning Anew; Disequilibrium and Lack of Rootedness; and Ambiguity about New Norms, New Practices. It was found that teachers work with GenAI in deeply personal, fragmented, and continuously evolving ways. GenAI took the form of novel work companions, enhancing the efficiency and effectiveness of some work practices. It also was a disruptor to old habits of thinking, behaviour and practices. Teachers were in a state of disequilibrium in this new world beset by VUCA (volatility, uncertainty, complexity, and ambiguity). Some felt overwhelmed and 'at breaking point'. A lack of rootedness in teachers' beliefs and practices emerged. Teachers were generally against the notions of plagiarism and academic integrity held by students who believed the ends justified the means. However, with new ways of teaching, learning and assessment, many teachers recognised their beliefs and practices would have to change. Thus, in the absence of detailed AI guidelines, they called for the urgent need to establish boundaries and teach AI literacy to promote innovative and responsible use. In this VUCA world, more targeted change management training for teachers and students was strongly needed.

Chee, H., Ahn, S., & Lee, J. (2025). **A Competency Framework for AI Literacy: Variations by Different Learner Groups and an Implied Learning Pathway**. *British Journal of Educational Technology*, *56*(5), 2146-2182. https://doi.org/10.1111/bjet.13556
This study aims to develop a comprehensive competency framework for artificial intelligence (AI) literacy, delineating essential competencies and sub-competencies. This framework and its potential variations, tailored to different learner groups (by educational level and discipline), can serve as a crucial reference for designing and implementing AI curricula. However, the research on AI literacy by target learners is still in its infancy, and the findings of several existing studies provide inconsistent guidelines for educational practices. Following the 2020 PRISMA guidelines, we searched the Web of Science, Scopus, and ScienceDirect databases to identify relevant studies published between January 2012 and October 2024. The quality of the included studies was evaluated using QualSyst. A total of 29 studies were identified, and their research findings were synthesized. Results show that at the K-12 level, the required competencies include basic AI knowledge, device usage, and AI ethics. For higher education, the focus shifts to understanding data and algorithms, problem-solving, and career-related competencies. For general workforce, emphasis is placed on the interpretation and utilization of data and AI tools for specific careers, along with error detection and AI-based decision-making. This study connects the progression of specific learning objectives, which should be intensively addressed at each stage, to propose an AI literacy education pathway. We discuss the findings, potentials, and limitations of the derived competency framework for AI literacy, including its theoretical and practical implications and future research suggestions. Practitioner notes What is already known about this topic AI literacy is becoming increasingly important as AI technologies are integrated into various aspects of life and work. Research on AI literacy competencies across diverse learner groups and disciplines remains fragmented and inconsistent to guide educational practices. Studies providing a coherent pathway for AI literacy development throughout educational and working life are lacking. What this paper adds A comprehensive AI literacy competency framework consisting of 8 competencies and 18 sub-competencies. Variations in AI literacy competencies with tailored configuration and prioritization across different learner groups by school levels and disciplines. A proposed pathway for developing AI literacy from K-12 to higher education and workforce levels. Implications for practice and policy The framework can guide the design and implementation of AI curricula tailored to different learner characteristics and needs. Education should shift focus from teaching how to use AI to fostering competencies for critical, strategic, responsible and ethical integration of AI. Policies are needed to support a systematic pathway for lifelong AI literacy development from K-12 education to workforce training.

Chellappa, V. (2025). **Exploring students' intention to use a mobile application for learning construction ergonomics**. *Education and Information Technologies*, *30*(12), 16805-16833. https://doi.org/10.1007/s10639-025-13453-4
Construction ergonomics is crucial for developing strategies to prevent workplace injuries and enhance worker well-being. However, this critical topic is often overlooked or inadequately addressed in civil engineering education programs. To bridge this knowledge gap, a mobile application (app) was developed to facilitate learning about construction ergonomics for civil engineering students. This study investigates factors influencing civil engineering students' intention to use a mobile learning platform for

construction ergonomics. Building upon the Technology Acceptance Model (TAM), which emphasizes perceived usefulness and ease of use, the researchers incorporated additional variables—perceived app quality, perceived enjoyment, and information quality—to provide a more comprehensive understanding of technology adoption in this context. Data were collected from 107 students at an affiliated institute of Anna University Chennai. The results showed that nine out of the ten proposed hypotheses were supported. Findings indicate that students perceive the app's information as useful, develop a positive attitude toward it, and are inclined to use it. This study contributes to ergonomics theory by providing a theoretical foundation for applying mobile apps in construction ergonomics education. The findings also have implications for practical innovation and the wider adoption of mobile learning in civil engineering education.

Chen, C.-C., & Tsai, Y.-H. (2025). **Effect of interactive e-book use on learning engagement, satisfaction and perceived learning**. *Education and Information Technologies*, *30*(11), 15757-15789. https://doi.org/10.1007/s10639-025-13415-w
With the rapid advancement of digital learning technologies, interactive e-books have emerged as a pivotal tool in technology-enhanced education, particularly for promoting active learning. However, existing research on learning engagement has inadequately addressed the integrated effects of emotional, behavioral, and cognitive dimensions on learning achievement. To address this gap, the present study investigates the impact of interactive e-book materials, designed in alignment with the GAFCCC strategy framework (Goals, Access, Feedback, Challenges, Collaboration), on various learning metrics, including learning achievement, engagement, satisfaction, and perceived learning. A comparative analysis was conducted with lecturer-centered narrative teaching to evaluate the differences between the two approaches. The findings demonstrate that the use of interactive e-books significantly enhances students' academic performance, engagement, satisfaction, and perceived learning outcomes. Further analysis reveals that the emotional, behavioral, and cognitive dimensions of engagement exhibit moderate to strong correlations with cognitive learning outcomes and satisfaction levels. Among these dimensions, emotional engagement is identified as the most influential factor affecting satisfaction, while cognitive engagement is the primary driver of perceived learning. Moreover, in comparison to lecturer-centered teaching, students expressed a marked preference for learning through interactive e-books, citing greater interest, sustained attention, and heightened classroom engagement. However, the research is limited by its exclusive focus on the emotional, cognitive, and behavioral dimensions of engagement, potentially overlooking other significant factors influencing learning outcomes.

Chen, C.-H., Huang, K., Hu, P.-H., & Krautinger, H. (2025). **Impact of rewards in a digital game on computational thinking: Mediation by tension and moderation by competition**. *Education and Information Technologies*, *30*(12), 16575-16600. https://doi.org/10.1007/s10639-025-13444-5
Although proponents of digital game-based learning (DGBL) argue that educational games engage students and afford better learning outcomes, the impact of specific game elements on computational thinking (CT) outcomes and motivation remains unclear. Research suggests that different game elements in DGBL may elicit varying levels of motivation and affect outcomes. In a digital game designed for CT learning, this study examined the complex relationship among rewards, competition, motivation, and learning outcomes. Data were collected from 216 secondary school students across ten

different classes, who were randomly assigned to one of five conditions: power-up rewards with competition, power-up rewards only, customization rewards with competition, customization rewards only, and a control condition with no rewards or competition. Regression analysis revealed that power-up rewards impacted CT learning indirectly by reducing tension, although they did not directly influence motivation or CT outcomes. Customization rewards showed no significant effects on motivation or CT outcomes. Although competition alone did not significantly influence motivation or CT outcomes, its combination with power-up rewards weakened CT outcomes compared with power-up rewards alone without competition. The study suggests that competition may dilute the positive effects of rewards, emphasizing the need for careful integration of reward structures in DGBL. The study provides valuable insights for designing DGBL interventions that balance rewards and competition while minimizing tension to achieve optimal learning outcomes.

Chen, J., Mokmin, N. A. M., Shen, Q., & Su, H. (2025). **Leveraging AI in design education: exploring virtual instructors and conversational techniques in flipped classroom models**. *Education and Information Technologies*, *30*(12), 16441-16461. https://doi.org/10.1007/s10639-025-13458-z
The History of Design course is a foundational component for art and design students; however, many students perceive it as abstract and unengaging, mainly due to its highly conceptual nature and traditional lecture-based teaching methods. To address these challenges, this study investigates the impact of AI-generated virtual instructors and a conversational teaching style on academic achievement, cognitive load, and student engagement in the flipped classroom. This study employed a 2 × 2 experimental design, with 124 first-year design students randomly assigned to four experimental conditions: human-formal (HF), human-conversational (HC), AI-generated-formal (AF), and AI-generated-conversational (AC). The results indicate that the AI-generated virtual instructor significantly enhances affective engagement and has a comparably beneficial effect on academic performance and cognitive load compared to the human instructor. Furthermore, the conversational teaching style considerably improves students' academic performance, reduces cognitive load, and fosters engagement. These findings suggest that integrating generative AI tools with conversational teaching style within a flipped classroom model not only optimizes students' learning experiences but also offers a practical framework for reducing educators' workloads while contributing valuable insights into the application of generative AI in education.

Chen, P., Wang, R., & Chen, X. (2025). **Exploring the emergent role configuration and behavioral pattern in middle school collaborative programming learning**. *Education and Information Technologies*, *30*(13), 17881-17907. https://doi.org/10.1007/s10639-025-13440-9
Collaborative learning is a widely used teaching model in programming education. A deeper understanding of the roles and behavior patterns within collaborative learning could improve its performance. In this study, an emergent role configuration and behavioral pattern are analyzed using audio and video data from 10 groups in a 7th-grade programming course. First, the study applies content analysis to construct the emergent role framework for collaborative programming learning. Then, learners' role behavioral events and behavioral sequences among the high- and low-performance groups are identified using lag sequential analysis. A total of 1555 emergent role behaviors are generated. The results show that focus on task and process is a special

emergent role of collaborative programming; and compared to the low-performance group, the high-performance group exhibited a more balanced distribution of emergent roles and more orderly behavior patterns. Specifically, high-performance groups demonstrated better team spirit, feedback consciousness, participation enthusiasm, a friendly and equal discussion environment, and effective resolution strategies for negative emotional roles. These findings will guide teachers in designing high-quality collaborative programming activities and assist students in developing programming competency.

Chen, R., Lee, V. R., & G Lee, M. (2025). **A cross-sectional look at teacher reactions, worries, and professional development needs related to generative AI in an urban school district**. *Education and Information Technologies*, *30*(11), 16045-16082. https://doi.org/10.1007/s10639-025-13350-w
Public interest has surged around artificial intelligence (AI) due to new capabilities demonstrated by new AI chatbot technologies, such as ChatGPT. This study investigates teachers' immediate perceptions, concerns, and professional development needs with respect to AI in a large urban school district. Using a mixed methods approach, we analyzed survey responses from 1,454 teachers to understand how teacher attitudes toward AI chatbots are associated with characteristics such as grade level taught, subject area, and teaching experience. Findings identify key concerns and benefits teachers report for themselves and for their students regarding the adaptation of AI chatbot usage in educational settings. Teachers in secondary school settings were less willing to allow AI chatbot usage, relative to those in elementary settings. While elementary and middle school teachers prioritized basic AI literacy as a professional development need, high school teachers emphasized strategies for guiding students to use AI and detecting AI-generated work. These findings offer insights for developing targeted professional development programs and policies for effective AI integration across K-12 settings.

Chen, S., Yin, H., & Cheung, A. C. K. (2025). **How professional capital empowers ICT Integration: The roles of teachers' constructivist belief, differentiated instruction and AI literacy**. *International Journal of Educational Research*, *133*, 102715. https://doi.org/10.1016/j.ijer.2025.102715
Research has yet to fully uncover how professional capital translates into effective ICT integration by teachers in the age of artificial intelligence. Grounded in the Technological Pedagogical Content Knowledge (TPACK) framework, this study analyzed data from 1015 Chinese middle school teachers using structural equation modeling. This study unveiled that: (1) Professional capital was positively associated with constructivist belief and differentiated instruction, respectively; (2) Professional capital was positively related to ICT integration via the mediating roles of differentiated instruction and AI literacy; (3) Although constructivist belief showed no significant association with ICT integration, gender and disciplinary differences emerged; (4) A sequential mediation chain of constructivist belief, differentiated instruction and AI literacy was identified; (5) AI literacy served as both an outcome of differentiated instruction and a catalyst for ICT integration. These results extend the TPACK framework by incorporating AI literacy and differentiated instruction and offer practical insights for teacher development programs aiming to strengthen teachers' technological pedagogical knowledge (TPK), aligning pedagogical philosophy, teaching practices, and emerging technology.

Chen, X., Jia, B., Peng, X., Zhao, H., Yao, J., Wang, Z., & Zhu, S. (2025). **Effects of ChatGPT and argument map(AM)-supported online argumentation on college students' critical thinking skills and perceptions**. *Education and Information Technologies*, *30*(12), 17623-17658. https://doi.org/10.1007/s10639-025-13471-2
Although online argumentation provides students with sufficient time to think, they often lack a clear argument structure and timely guidance during the process. This may negatively affect students' abilities to support or rebut arguments and to develop their critical thinking skills. In this study, 64 sophomores were evenly assigned to either a control or an experimental group. Each group was further divided into four teams, with each team comprising both a pro and a con side; the former needed to argue for a given position and the latter against that position. Using the collaborative online platform "ShiMo," the control group engaged in textual argumentation, whereas the experimental group conducted their argumentation by drawing argument maps (AMs). Furthermore, students could also seek assistance from ChatGPT 3.5 when encountering difficulties in creating AMs. Both questionnaires and content analysis were used to evaluate students' critical thinking skills and perceptions. The findings indicated that ChatGPT and AM-supported online argumentation effectively promoted students' critical thinking skills, encouraging them to engage in more rebuttal activities through analysis, evaluation, and creation. Students perceived that AMs clearly visualized argument structure, albeit providing limited assistance in facilitating information gathering. ChatGPT provided detailed information and fostered a positive attitude toward argumentation among students; however, the accuracy and appropriateness of the provided information remained doubtful. These findings have several implications. College students' critical thinking skills can be improved by integrating teacher guidance into ChatGPT and AM-supported online argumentation, being skeptical of ChatGPT's outputs, and improving information literacy to efficiently utilize ChatGPT.

Chen, Y., Zhi, Y., & Derakhshan, A. (2025). **Integrating Artificial Intelligence (AI) Into the English as a Foreign Language Classroom: Exploring Its Impact on Students' Achievement Emotions and Willingness to Communicate (WTC)**. *European Journal of Education*, *60*(3), e70157. https://doi.org/10.1111/ejed.70157
This intervention study strived to uncover the significance of Artificial Intelligence (AI) in L2 classrooms by exploring its impact on English language learners' achievement emotions and willingness to communicate (WTC). The study also examined the interrelationship between English learners' achievement emotions and their WTC in AI-powered classrooms. To these aims, a group of Chinese English students (N = 204) was randomly divided into the control and treatment groups. Prior to commencing the experiment, two pre-designed inventories were administered to both the control and the treatment group. Following the initial assessment, students in the treatment group (N = 107) received AI-based instruction for a period of 6 weeks. In parallel, students in the control group (N = 97) were subjected to conventional education. At the conclusion of the experiment, the pre-designed surveys were distributed among the control and treatment groups. The results of the experiment showed that students in the treatment group, who received the AI-based instruction, exhibited a higher increase in their positive achievement emotions and WTC compared to their counterparts in the control group. The results also evinced a strong and favourable connection between students' WTC and their positive achievement emotions. The study offers precious insights for educational leaders and language teachers regarding the benefits of integrating AI into L2 classrooms.

Chevalère, J., Berthon, M., Rocher, N., Pailler, D., Mazenod, V., & Huguet, P. (2025). **A digital safe space for learning: how computer-assisted instruction supports students with lower academic self-concept**. *Education and Information Technologies*, *30*(11), 15413-15440. https://doi.org/10.1007/s10639-025-13424-9

Computer-assisted instruction (CAI) is a valuable approach for managing classroom heterogeneity by providing feedback tailored to students' individual needs. While previous research has primarily focused on the cognitive mechanisms underlying CAI's effectiveness, it has often overlooked the social-cognitive processes that may contribute to its success by offering students a private learning space away from the judgement of their peers. The present study compared CAI to conventional classroom instruction over a two-week period with 389 tenth-grade history-geography students. First, we expected that CAI would result in better academic learning compared to conventional classroom instruction. Second, we tested alternative hypotheses, that learning gains in CAI would vary depending on students' levels of academic self-concept (social-cognitive hypothesis) and prior knowledge (cognitive scaffolding hypothesis). Consistent with the social-cognitive hypothesis, multilevel modeling revealed that students with initially lower levels of ASC experienced higher learning gains in CAI compared to conventional classroom instruction, while no benefits were observed for students with lower prior knowledge. Additionally, our results indicate a disruption of the predictive relationship between ASC and subsequent academic performance in the CAI group, compared to the presence of this association in the conventional classroom instruction group. These findings suggest that CAI benefits low-confidence students regardless of their initial ability level and that this method offers a protective effect against the impact of perceived incompetence on subsequent performance.

Chiou, C.-C., & Lin, K. H.-C. (2025). **Learning-related animated multidimensional concept map multimedia materials to stimulate positive emotions and enhance learning achievements in university students: A true experimental design**. *Education and Information Technologies*, *30*(12), 17659-17694. https://doi.org/10.1007/s10639-025-13473-0

This study aimed to explore the effects of integrating learning-related animations and anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials to stimulate positive emotions in university students and to investigate whether these materials could improve their learning achievements. The research method employed a true experimental design. Participants were 158 volunteer students recruited from the College of Management at a national university in central Taiwan. Data analysis methods included analysis of covariance and regression analysis. Results showed that multimedia learning materials using learning-related animated multidimensional concept maps were more effective in stimulating students' positive emotions and improving their learning outcomes than the other three types. Notably, students' learning achievements were directly influenced by the use of different types of multimedia learning materials rather than through the mediation of positive emotions. In conclusion, this study demonstrates that integrating learning-related animations and anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials can stimulate students' positive emotions and positively impact their learning achievements. This study innovatively integrates additional elements such as learning-related animations and intrinsic design elements like anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials, providing

additional contributions to the cognitive theory of multimedia learning and the principles of emotional design.

Chopra, G., Bhaskar, P., Purohit, A., & Strzelecki, A. (2025). **Unlocking ChatGPT's potential: a comparative study of student adoption intentions in higher education across India and Poland**. *Education and Information Technologies*, *30*(13), 18375-18396. https://doi.org/10.1007/s10639-025-13536-2
This comparative study explores the determinants affecting universities students' inclinations to adopt ChatGPT across India and Poland via the unified theory of acceptance and use of technology (UTAUT) model. The research employs a quantitative methodology by collecting data from 1074 students (528 from Poland and 546 from India) through a validated questionnaire. Through structural equation modeling (SEM), this study analyzes performance expectancy, effort expectancy, social influence on behavioral intention and the influence of facilitating conditions on use behavior. Additionally, gender and study level moderation has also been investigated. The results indicate that university level students' intention to use ChatGPT across India and Poland is significantly influenced by performance expectancy, effort expectancy, and social influence, with different degrees of influence. Facilitating conditions significantly impact use behavior in Poland and India, with India having a stronger effect. In addition, behavioral intention significantly influences use behavior in both countries. Moreover, behavioral intentions were moderated by gender and study level in both countries. This research explains valuable insights on components influencing the adoption intentions of ChatGPT in higher education across India and Poland.

Chou, C.-M., Shen, T.-C., & Shen, T.-C. (2025). **Using structural equations to explore the impact of university students' technology acceptance on AR-supported learning effectiveness: mediation variable of self-regulation**. *Education and Information Technologies*, *30*(12), 16771-16804. https://doi.org/10.1007/s10639-025-13469-w
AR-supported instruction has been verified to improve students' problem-solving skills. This study investigated 1041 university students and developed an empirical research model that combined technology acceptance, self-regulation, and AR-supported learning effectiveness with the structural equation model (SEM). At the same time, content analysis was used to understand students' feedback and reflections on their AR learning experience, and a total of 677 feedbacks were received. This research found that technology acceptance and self-regulation are significantly and positively related to augmented AR-supported learning effectiveness. First, students' perceived enjoyment and perceived innovation are the most important factors for technology acceptance, among which perceived innovation significantly impacts teachers' understanding of students' learning outcomes. Secondly, the interpersonal influence of self-regulation significantly impacts students, and it can be seen that friends' opinions are the source of information. Third, students' cognitive strategies of self-regulation will affect students' AR-supported learning. The influence pattern and empirical data of the technology acceptance, and self-regulation on AR-supported learning effectiveness exhibited a good fit. Finally, through the content analysis of students' feedback on AR learning experience, it can be seen that students are interested in AR's ability to provide diverse and immersive learning experiences, AR visual interactivity, personalized learning and motivation, but AR learning challenges also have their limitations. Inspire teachers to build learner-centered environments and stimulate students' motivation to learn through AR.

Chsherbakova, Y., Alimova, S., Pfeyfer, N., & Nygmetova, B. (2025). **SWOT Analysis of Work-Integrated Learning and Online Learning Framework in Higher Educational Institutions of Kazakhstan**. *European Journal of Education*, *60*(3), e70215. https://doi.org/10.1111/ejed.70215
The aim of this study is to conduct a SWOT analysis of online and work-integrated learning in higher educational institutions in Kazakhstan. The participants of the study were 117 s-year students from Toraigyrov University. Students filled out electronic SWOT matrices after completing a three-month period of online and work-integrated learning. The results of the SWOT analysis revealed that the key strengths of online learning in Kazakhstan include its flexibility, accessibility of educational materials and individualisation of the learning process. Weaknesses included the lack of live interaction with instructors and peers, insufficient feedback and technical difficulties. Opportunities for online learning involve access to global education and the enhancement of digital literacy. Threats encompass social isolation, demotivation and potential declines in education quality. The study's practical significance lies in the potential application of its results for enhancing online and work-integrated learning in Kazakhstan, as well as the development of hybrid educational programmes.

Chusseau, E., Crosse, M., Defente, V., Devos, L., Herve-Pecot, F., Garcia-Arjona, N., … Peterson, C. (2025). **L'intelligence artificielle, la transition socio-environnementale : une mise en débat à partir de récits fictions**. *Questions de Pédagogies dans l'Enseignement Supérieur*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05172715
L'argumentaire de ce colloque QPES plante bien le décor des nombreuses questions bouleversantes qui assaillent aujourd'hui l'enseignement supérieur. Parmi celles-ci, nous en retenons plus particulièrement deux, l'intelligence artificielle (IA) générative et la transition socio-environnementale (TSE), pour en faire l'objet du débat proposé. Prenant appui sur une expérience que nous conduisons actuellement dans le cadre d'un séminaire en pédagogie de l'enseignement supérieur et d'une formation de 3ème cycle (écriture de récits fictions, mise en débat avec la perspective de dégager des prises en compte pédagogiques de ces deux thématiques et de leur interrelation), nous proposons de partager et élargir ce débat lors de ce colloque QPES. Ce travail préalablement réalisé servira de base de discussion pour questionner la manière dont les thématiques de l'IA et de la TSE peuvent être appréhendées dans l'enseignement supérieur : quel(s) savoir(s) remettre en question ? quel(s) nouveau(x) savoir(s) élaborer ? quelle posture construire ? … Notre proposition de mise en débat vise deux objectifs : a) partager nos réflexions et les dynamiser grâce aux discussions ; b) partager notre méthode pour en faciliter la ré-exploitation dans d'autres contextes.

Çiftçi, E. Y., & Çinpolat, E. (2025). **Internationalisation at Home and Teacher Education: Engaging International Students as Conversational Partners**. *European Journal of Education*, *60*(3), e70213. https://doi.org/10.1111/ejed.70213
Internationalisation at Home (IaH) provides a valuable yet under-utilised approach to fostering intercultural engagement in teacher education, particularly for non-mobile prospective teachers. In this study, we examined the impact of an IaH initiative in which prospective teachers were paired with international students as conversational partners within a course on language and intercultural communication. We analysed focus group interviews and written reports to explore how this experience shaped the prospective teachers' intercultural and professional development. Our analysis showed that integrating coursework with the partnership encouraged participants to critically reflect

on their biases, challenge ethnocentric views and adopt a more inclusive perspective. They also gained confidence in working with diverse student populations and developed a deeper appreciation for language learning. Overall, our study outcomes suggest that thoughtfully integrated IaH initiatives can support inclusive, culturally responsive teaching and provide meaningful intercultural experiences for prospective teachers who do not participate in study abroad programmes.

Claro, M., & Castro-Grau, C. (2025). **Developing teacher digital competencies in the age of AI. Chile case study**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vo
Since the 1990s, Chile has prioritized digital technologies in education, but the rise of AI presents new challenges for educators. The Observatory of Digital Educational Practices (OPED) at Universidad Católica de Chile has developed a training model with four dimensions – Personal and Social Development, Digital Learning and Creation, Digital Disciplinary Skills, and Active Digital Methodologies – to prepare future teachers for a digital society. OPED is also designing new curriculum modules to foster critical engagement with AI and align with international trends and institutional policies, and analysing their ability to enhance or redefine teaching practices. The paper highlights that intentional design, ethical considerations, and institutional support are essential for leveraging AI's potential in education.

Cosentino, G., Anton, J., Sharma, K., Gelsomini, M., Giannakos, M., & Abrahamson, D. (2025). **Generative AI and multimodal data for educational feedback: Insights from embodied math learning**. *British Journal of Educational Technology*, *56*(5), 1686-1709. https://doi.org/10.1111/bjet.13587
This study explores the role of generative AI (GenAI) in providing formative feedback in children's digital learning experiences, specifically in the context of mathematics education. Using multimodal data, the research compares AI-generated feedback with feedback from human instructors, focusing on its impact on children's learning outcomes. Children engaged with a digital body-scale number line to learn addition and subtraction of positive and negative integers through embodied interaction. The study followed a between-group design, with one group receiving feedback from a human instructor and the other from GenAI. Eye-tracking data and system logs were used to evaluate student's information processing behaviour and cognitive load. The results revealed that while task-based performance did not differ significantly between conditions, the GenAI feedback condition demonstrated lower cognitive load and students show different visual information processing strategies among the two conditions. The findings provide empirical support for the potential of GenAI to complement traditional teaching by providing structured and adaptive feedback that supports efficient learning. The study underscores the importance of hybrid intelligence approaches that integrate human and AI feedback to enhance learning through synergistic feedback. This research offers valuable insights for educators, developers and researchers aiming to design hybrid AI-human educational environments that promote effective learning outcomes. Practitioner notes What is already known about this topic? Embodied learning approaches have been shown to facilitate deeper cognitive processing by engaging students physically with learning materials, which is especially beneficial in abstract subjects like mathematics. GenAI has the potential to enhance educational experiences through personalized feedback, making it crucial for fostering student understanding and engagement. Previous research indicates that hybrid

intelligence that combines AI with human instructors can contribute to improved educational outcomes. What this paper adds? This study empirically examines the effectiveness of GenAI-generated feedback when compared to human instructor feedback in the context of a multisensory environment (MSE) for math learning. Findings from system logs and eye-tracking analysis reveal that GenAI feedback can support learning effectively, particularly in helping students manage their cognitive load. The research uncovers that GenAI and teacher feedback lead to different information processing strategies. These findings provide actionable insights into how feedback modality influences cognitive engagement. Implications for practice and/or policy The integration of GenAI into educational settings presents an opportunity to enhance traditional teaching methods, enabling an adaptive learning environment that leverages the strengths of both AI and human feedback. Future educational practices should explore hybrid models that incorporate both AI and human feedback to create inclusive and effective learning experiences, adapting to the diverse needs of learners. Policymakers should establish guidelines and frameworks to facilitate the ethical and equitable adoption of GenAI technologies for learning. This includes addressing issues of trust, transparency and accessibility to ensure that GenAI systems are effectively supporting, rather than replacing, human instructors.

Cui, Y., & Zhang, H. (2025). **Can student accurately identify artificial intelligence generated content? an exploration of AIGC credibility from user perspective in education**. *Education and Information Technologies*, *30*(12), 16321-16346. https://doi.org/10.1007/s10639-025-13448-1
With the development of artificial intelligence technology, it has become increasingly difficult to distinguish between Artificial Intelligence Generated Content (AIGC) and non-AIGC. Inaccuracies in identifying AIGC in higher education may lead to academic misconduct and risks, and the credibility of AIGC is also subject to certain doubts. Users are the direct perceivers of AIGC, and winning their trust is the goal of AI applications. Therefore, exploring the credibility of AIGC holds positive value in higher education. This study designed three specific tasks and collected data from students majoring in educational technology at a normal university through questionnaires. The findings indicate that students only have a 70% success rate in identifying AIGC, and the recognition rate for domain-specific AIGC content may be even worse, with only 60%. Finding also indicated that perceived technological acceptance is the primary factor influencing AIGC credibility and behavioral adoption. Students may also experience AI illusions during AIGC usage, leading to overreliance. This research provides reliable evidence for assessing AIGC credibility in higher education, enhancing students' cognition and application abilities regarding AIGC, and offering insights into promoting effective use of AIGC.

Dahman, Z., & Douieb, M. M. (2025). **Transformation digitale et développement des compétences dans l'enseignement supérieur**. *International Journal of Accounting, Finance, Auditing, Management and Economics*. Consulté à l'adresse https://hal.science/hal-05205573
The digitalization of higher education represents far more than mere technological integration; it entails a profound redefinition of pedagogical methods and teaching practices. This digital transformation hinges on a critical re-evaluation of traditional approaches, essential for adapting to the individual needs of learners and the dynamics of an ever-evolving global landscape. The ultimate goal is to build an educational system

that is more resilient, flexible, and relevant in the face of contemporary challenges. The advent of the digital university paves the way for the globalization of educational processes and methods. Thanks to advanced technological systems such as LMS (Learning Management System), LXP (Learning Experience Platform), and more recently artificial intelligence (AI), it has become possible to personalize and adapt learning pathways. This personalization makes learning inherently more flexible and accessible, better aligning with learners' professional aspirations, distinct learning styles, and individual paces. Many countries have already embraced and implemented ambitious national strategies for the digitalization of their higher education, recognizing its transformative potential. This study offers a comparative analysis of Digital Learning initiatives in various leading countries. We will thoroughly examine the strategies and achievements of nations like Finland, renowned for its educational excellence; South Korea, a pioneer in technological integration; India, with its scalable challenges and innovative solutions; and Rwanda, an inspiring example of digital transformation in a developing context. This exploration will shed light on the inherent challenges and opportunities associated with this major transition. In parallel, we will position Morocco within this global landscape, detailing its own initiatives, notably Maroc Digital 2020 and the Code 212 project. These efforts illustrate the kingdom's clear commitment to modernizing its educational system and making it compliant with 21st-century requirements. In conclusion, this study will highlight the best practices observed internationally and formulate concrete recommendations for a sustainable and effective digitalization of higher education.

Dahri, N. A., Yahaya, N., Vighio, M. S., & Jumaat, N. F. (2025). **Exploring the impact of ChatGPT on teaching performance: findings from SOR theory, SEM and IPMA analysis approach**. *Education and Information Technologies*, *30*(13), 18241-18276. https://doi.org/10.1007/s10639-025-13539-z

This study explores the impact of ChatGPT on educational efficacy using the Stimulus-Organism-Response (SOR) model with supportive concepts from the Self-Determination Theory (SDT) and the Technology Acceptance Model (TAM). To understand how Perceived Autonomy, Perceived Competence, Perceived Relatedness, Perceived Ease of Use, and Perceived Usefulness drive the intention of teachers to introduce AI-related technologies in their teaching practices. We used a quantitative approach with a sample size of 305 teachers selected conveniently in Pakistan. Structural Equation Modeling was utilized to investigate the relationship between the constructs, and Importance-Performance Map Analysis provides the relative importance and effectiveness of each factor in affecting teachers' adoption of ChatGPT. SEM results suggest that Perceived Usefulness, Ease of Use, and Autonomy are significant drivers for improving teachers' intentions to apply ChatGPT in their instruction. More importantly, although Perceived Relatedness increases affective teaching involvement, Perceived Competence does not significantly impact cognitive engagement. Meanwhile, IPMA emphasizes that factors like teaching support and perceived autonomy are likely to increase teachers' confidence and motivation to use AI tools in their teaching. This research identifies ChatGPT's real-world influence on education through increased teaching effectiveness, it allows teachers to design creative lesson plans, incorporate student-led strategies, and personalize learning paths. It offers actionable recommendations for developing AI solutions and training initiatives that ease integration, foster autonomy, and enhance teaching and learning results.

Dang, B., Huynh, L., Gul, F., Rosé, C., Järvelä, S., & Nguyen, A. (2025). **Human–AI collaborative learning in mixed reality: Examining the cognitive and socio-emotional interactions**. *British Journal of Educational Technology*, *56*(5), 2078-2101. https://doi.org/10.1111/bjet.13607

The rise of generative artificial intelligence (GAI), especially with multimodal large language models like GPT-4o, sparked transformative potential and challenges for learning and teaching. With potential as a cognitive offloading tool, GAI can enable learners to focus on higher-order thinking and creativity. Yet, this also raises questions about integration into traditional education due to the limited research on learners' interactions with GAI. Some studies with GAI focus on text-based human–AI interactions, while research on embodied GAI in immersive environments like mixed reality (MR) remains unexplored. To address this, this study investigates interaction dynamics between learners and embodied GAI agents in MR, examining cognitive and socio-emotional interactions during collaborative learning. We investigated the paired interactive patterns between a student and an embodied GAI agent in MR, based on data from 26 higher education students with 1317 recorded activities. Data were analysed using a multi-layered learning analytics approach, including quantitative content analysis, sequence analysis via hierarchical clustering and pattern analysis through ordered network analysis (ONA). Our findings identified two interaction patterns: type (1) AI-led Supported Exploratory Questioning (AISQ) and type (2) Learner-Initiated Inquiry (LII) group. Despite their distinction in characteristic, both types demonstrated comparable levels of socio-emotional engagement and exhibited meaningful cognitive engagement, surpassing the superficial content reproduction that can be observed in interactions with GPT models. This study contributes to the human–AI collaboration and learning studies, extending understanding to learning in MR environments and highlighting implications for designing AI-based educational tools. Practitioner notes What is already known about this topic Socio-emotional interactions are fundamental to cognitive processes and play a critical role in collaborative learning. Generative artificial intelligence (GAI) holds transformative potential for education but raises questions about how learners interact with such technology. Most existing research focuses on text-based interactions with GAI; there is limited empirical evidence on how embodied GAI agents within immersive environments like Mixed Reality (MR) influence the cognitive and socio-emotional interactions for learning and regulation. What this paper adds Provides first empirical insights into cognitive and socio-emotional interaction patterns between learners and embodied GAI agents in MR environments. Identifies two distinct interaction patterns: AISQ type (structured, guided, supportive) and LII type (inquiry-driven, exploratory, engaging), demonstrating how these patterns influence collaborative learning dynamics. Shows that both interaction types facilitate meaningful cognitive engagement, moving beyond superficial content reproduction commonly associated with GAI interactions. Implications for practice and/or policy Insights from the identified interaction patterns can inform the design of teaching strategies that effectively integrate embodied GAI agents to enhance both cognitive and socio-emotional engagement. Findings can guide the development of AI-based educational tools that capitalise on the capabilities of embodied GAI agents, supporting a balance between structured guidance and exploratory learning. Highlights the need for ethical considerations in adopting embodied GAI agents, particularly regarding the human-like realism of these agents and potential impacts on learner dependency and interaction norms.

Degeuse, L., & Sénécail, A. (2025). **Développer sa professionnalité grâce à la vidéo 360° : exemple d'un dispositif pour la formation des professeurs documentalistes**. *Médiations et médiatisations - Revue internationale sur le numérique en éducation et communication*, (20), 138-151. https://doi.org/10.52358/mm.vi20.435
In France, the INSPÉs (National Institutes of Teaching and Education) prepare students for careers in teaching, education, and training. In response to the challenges affecting teacher recruitment and training (Devos & Paquay, 2013; Dubet, 2020), the INSPÉ of the Bordeaux Academy, in partnership with the INSPÉs of the Poitiers and Limoges Academies, has been testing a new system of 360° video-based pedagogical resources. The aim is to provide future teachers with experiential, embodied, and context-based learning opportunities. This article presents a case study on the use of 360° videos for training school librarians. It outlines the key steps involved, from designing the content to producing and sharing 360° video resources captured in professional settings. The article also examines the initial outcomes, the potential benefits, and the limitations of this system. Finally, it highlights the impact of 360° videos on students' cognitive, emotional, and physical engagement, as well as the collaborative dynamics fostered by the innovative approach.

Deng, Y., Zhang, Y., & Zhao, R. (2025). **Investigating learning behaviors in desktop-based simulated and vr headset-based immersive 3D learning environments: a cross-media comparative study**. *Education and Information Technologies*, *30*(11), 15441-15465. https://doi.org/10.1007/s10639-025-13411-0
Computer simulation technology and virtual reality technology have gained considerable attention in the field of education due to their potential to create various 3D interactive learning environments, typically including simulated learning environments and immersive learning environments. To gain a deeper understanding of students' learning behaviors in these two types of learning environments, we conducted a cross-media comparison study, where two groups of homogeneous participants were assigned to complete the same learning content and tasks in a desktop-based simulated learning environment (SLE) and a VR headset-based immersive learning environment (ILE), respectively. During the experimental process, we carefully recorded the learning journey of each participant in the environments. Simultaneously, we captured and cataloged their behaviors in a chronological sequence by identifying the start time and duration of each learning behavior. Utilizing this experimental data, we employed both statistical and lag sequential analyses to gain insights into the patterns of students' learning behaviors within these 3D environments. The results of the study confirm that learners in the VR headset-based immersive learning environment (ILE) demonstrate higher levels of focus, make fewer mistakes, and exhibit a lower frequency of behavior switching in comparison to learners in the desktop-based simulated learning environment (SLE). Additionally, the immersive and interactive nature of the ILE seems to enhance learners' visual attention and perceptual acuity, thereby sharpening their focus on the educational tasks. These findings highlight the potential benefits of utilizing VR technology in education to create engaging and effective learning experiences, and offer some implications for understanding learning behavior and designing effective learning activities in 3D interactive learning environments.

Devauchelle, B. (2025). **Les enseignants, les formateurs et les cadres éducatifs français face à l'intelligence artificielle**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vm

Cet article explore l'impact de l'intelligence artificielle (IA) sur l'enseignement et la formation, mettant en lumière les tensions entre fascination, crainte, et adaptation. En France, l'IA générative reste marginale en classe, mais est utilisée en périphérie par les élèves et enseignants pour des tâches comme la préparation des cours ou les travaux scolaires. Les enseignants reconnaissent son potentiel tout en redoutant les risques, notamment en matière d'éthique et de tricherie. L'IA adaptative, en phase d'expérimentation, pourrait personnaliser les apprentissages, mais l'accès limité aux équipements reste un obstacle. Les formateurs et cadres éducatifs voient dans l'IA un outil pour optimiser la gestion et soutenir pédagogiquement les enseignants sans les remplacer. Toutefois, des préoccupations éthiques et juridiques, notamment sur la collecte des données, freinent son intégration. La « liberté pédagogique » reste essentielle pour les enseignants, qui souhaitent conserver leur autorité et leur rôle décisionnel. L'intégration généralisée de l'IA nécessitera du temps et un cadre d'usage clair.

Di Santo, V., Trancossi, S., & Turri, M. (2025). **University Online Teaching in Italy: Diffusion and Characteristics of Students**. *European Journal of Education*, *60*(3), e70065. https://doi.org/10.1111/ejed.70065
The paper deals with the complex theme of the online universities in Italy, starting from the phenomenon historical reconstruction and framing the universities on the basis of the main analysis metrics (property, training offer, organic, territorial dislocation). Subsequently, the paper examines the composition and characteristics of the students who choose this type of university, comparing them not only with those of the students of the courses in the presence of state and non -state universities that are not online, but also with those of the students of the courses paid at a distance in these universities.

Dif-Pradalier, M., & Hivert, J. (2025). **Le « cens » caché de l'accompagnement au numérique : Le cas des « jeunes adultes en difficulté » en Suisse**. *Agora débats/jeunesses*, *100*(2), 85-101. https://doi.org/10.3917/agora.100.0085
À partir d'une enquête qualitative qui portait sur des mesures d'insertion sociale déployées dans le canton de Vaud en Suisse au profit de « jeunes adultes en difficulté », cet article montre que l'offre d'accompagnement au numérique qui est proposée, loin de résorber la « fracture numérique », tend au contraire à l'accentuer. Il met en lumière la manière dont l'offre d'accompagnement au numérique développée par ces mesures est inégalement distribuée et polarisée, renforce les inégalités sociales-numériques et entretient, en les anticipant, les logiques de ségrégation à l'œuvre sur le marché des places d'apprentissage. L'article apporte ainsi une contribution à l'étude du dévoilement des formes cachées d'exclusion numérique à l'œuvre dans les dispositifs d'insertion.

Ding, Z., Liu, R.-D., Ding, Y., Yang, X., & Yang, Y. (2025). **Moderation is the key: taking too easy or too hard courses increases academic cyberloafing**. *Education and Information Technologies*, *30*(13), 18513-18538. https://doi.org/10.1007/s10639-025-13546-0
Academic cyberloafing, defined as the involvement in non-academic online activities during academic tasks, has emerged as a prevalent concern within higher education. While previous research has identified course-related factors that may influence academic cyberloafing, the specific relation between perceived course difficulty and academic cyberloafing remains underexplored. To address this gap, five studies (N = 1118) were conducted to investigate the relation between perceived course

difficulty and academic cyberloafing and the mediating role of learning engagement among Chinese college students. Study 1 employed a questionnaire to investigate the U-shaped relation between perceived course difficulty and academic cyberloafing. Study 2, utilizing an experimental design, further confirmed this U-shaped relation. Studies 3 and 4 demonstrated learning engagement mediated the relation between perceived course difficulty and academic cyberloafing through scenario-based experiments. Finally, Study 5 reinforced these findings by manipulating perceived course difficulty within a real classroom setting, providing additional support for the mediating role of learning engagement. The results emphasize the critical role of students' engagement with course content in influencing their likelihood of engaging in academic cyberloafing, particularly when the perceived course difficulty is moderate. Taken together, the findings have implications for teachers' course design and contribute to a more comprehensive understanding of academic cyberloafing in classrooms.

Dishon, G. (2025). **Frankenstein, Emile, ChatGPT: Educating AI between Natural Learning and Artificial Monsters**. *Educational Theory*, *75*(4), 702-719. https://doi.org/10.1111/edth.70025
The emergence of ChatGPT, and other generative AI (GenAI) tools, has elicited dystopian and utopian proclamations concerning their potential impact on education. This paper suggests that responses to GenAI are based on often-implicit perceptions of naturalness and artificiality. To examine the depiction and function of these concepts, Gideon Dishon analyzes two pivotal texts in thinking about the natural and artificial — Emile and Frankenstein. These are complemented by a third text — a "conversation" between Microsoft's Bing chatbot and New York Times columnist Kevin Roose. Analyses of the natural–artificial relations across the three texts are explored along three key educational aspects: (i) the child's innate nature; (ii) how learning takes place; and (iii) the educators' role. These analyses offer three key implications for thinking about the natural–artificial in education in general, and with respect to AI specifically: (1) illuminating the centrality and ambiguity of notions of naturalness in educational discourse, often conflating its descriptive and normative use; (2) outlining how the natural and artificial are dialectically constructed across the three texts, with an emphasis on the relational view of artificiality in Frankenstein; (3) suggesting that what is novel about GenAI is not its artificial intelligence (AI), but rather its "artificial emotions" (AE) — the emotions attributed to it by humans, and the ensuing relations humans develop with such machines.

Douaihy, L., & Stannard, L. (2025). **Scaling and adapting digital personalised learning in crisis-affected areas: a comparison of the Can't Wait to Learn programme in Lebanon and Ukraine**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vx
Can't Wait to Learn is a digital personalised learning programme designed for children in crisis-affected settings, supporting access to quality education through contextualised, curriculum-aligned content. This personalised, self-paced, game-based platform developed by War Child is not just an education tool — it's a lifeline for children facing the most difficult situations, whether conflicts or climate shocks. This article examines its implementation and scaling in Lebanon and Ukraine, highlighting its adaptability to different modalities and contexts. It highlights critical enablers such as context-driven design, educator support, and strong partnerships.

Driggers, K., & Boyles, D. (2025). **Educational Implications of Artificial Intelligence: Peirce, Reason, and the Pragmatic Maxim**. *Educational Theory*, *75*(4), 682-701. https://doi.org/10.1111/edth.70028
Although Charles Sanders Peirce died over a century before ChatGPT became publicly available, we argue that he remains informative in discussions of AI because of his articulation of the Pragmatic Maxim We argue that Peirce's pragmatism offers two avenues from which the appropriateness or inappropriateness of AI in education can be evaluated: (1) Peirce's redefinition of teaching and learning along the lines of the finite origins of reason allows for a reorientation of education that would circumscribe the uses of AI to those that are dependent on authentic, inquisitive learning; and (2) Peirce's Pragmatic Maxim is used as a test by which myriad applications of AI can be evaluated for appropriateness. This test ensures that uses of AI are directed towards, experience. Rather than making a final determination on the overall desirability or undesirability of AI in education, we offer two methods for discriminating between the two extremes.

Dülger, M., van Leeuwen, A., Janssen, J., & Kester, L. (2025). **Designing a classroom-level teacher dashboard to foster primary school teachers' direct instruction of self-regulated learning strategies**. *Education and Information Technologies*, *30*(11), 14785-14819. https://doi.org/10.1007/s10639-025-13389-9
Self-regulated learning (SRL) is crucial for fostering lifelong learning skills in students, encompassing planning, monitoring, and controlling abilities. Previous research indicates that many students struggle to regulate their learning effectively. In the Netherlands, adaptive learning technologies are widely used to support math education in primary schools, providing direct feedback and adjusting problem difficulty levels. Despite this, students still need to invest effort and monitor their progress, requiring better SRL skills. Previous research emphasized the importance of teachers' direct instruction of SRL strategies for primary school students. Yet, identifying classroom needs accurately and timely remains challenging, especially in large classrooms. Teacher dashboards provide a solution by aggregating, analyzing, and reporting students' learning processes through visualizations. However, existing SRL dashboards have not focused on enhancing direct strategy instruction and lack theoretical grounding. To address these gaps, we developed a theory-based teacher dashboard through iterative co-design. We conducted two rounds of interviews with primary school teachers to gather insights on their current SRL practices and refined prototypes. The first round of results (n = 10) informed the creation of low-fidelity prototypes. The second round of results (n = 11) showed that teachers found the low-fidelity prototypes actionable while they still required further improvement to ensure clarity. Importantly, these interviews underlined teachers' need for a dashboard to better support SRL in the classroom. This study outlines teachers' SRL practices and the initial design steps of a teacher dashboard, laying the groundwork for developing similar dashboards enhancing teachers' SRL practices and potentially improving students' self-regulation.

Elmouhtadi, A., Souhad, S., & Soughati, N. (2025). **L'intelligence artificielle générative (IAg) dans l'apprentissage du FLE chez l'étudiante et l'étudiant marocains : étude de cas de la Faculté des sciences de Rabat**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-16
L'usage informel de l'intelligence artificielle générative (IAg) semble transformer l'expérience d'apprentissage des étudiantes et étudiants marocains, d'où l'importance d'analyser leur agir pour comprendre l'impact de cette technologie sur leur rendement.

Les réflexions d'Holec (1981) sur l'autonomie, enrichies par Benson (2013), serviront de cadre pour cette étude dont l'objectif est de déterminer la contribution de l'IAg dans l'apprentissage du français langue étrangère (FLE) en mode hybride. À cette fin, une méthodologie de recherche mixte auprès d'étudiants et étudiantes de la Faculté des sciences de Rabat (FSR) est privilégiée. Les résultats montrent que l'IAg, fort présente dans les pratiques étudiantes, soutient l'expérience de co-construction des compétences linguistiques ainsi que le développement de l'autonomie et de l'esprit critique et éthique d'un grand nombre de personnes apprenantes qui l'utilisent de manière réfléchie.

Elyakim, N. (2025). **Bridging expectations and reality: Addressing the price-value paradox in teachers' AI integration**. *Education and Information Technologies*, *30*(12), 16929-16968. https://doi.org/10.1007/s10639-025-13466-z
This study examines educators' perceptions of adopting Generative Artificial Intelligence (GenAI) tools in education through the lens of the extended Unified Theory of Acceptance and Use of Technology (UTAUT2) model. Using structural equation modeling (SEM) on data collected from 490 participants, the research investigates: (a) the extent to which UTAUT2 constructs explain educators' intentions and behaviors toward AI adoption, (b) potential deviations from traditional UTAUT2 pathways, and (c) demographic differences in adoption patterns. The findings reveal a Price-Value paradox, where perceived value drives intention but practical barriers reduce actual usage, alongside deviations from traditional UTAUT2 pathways, highlighting the nuanced complexity of AI adoption in educational settings. This research underscores the importance of robust infrastructure, practical training in AI fundamentals, and sustained peer support in bridging the gap between intention and usage. Key drivers such as performance expectancy, hedonic motivation, and social influence play critical roles in shaping educators' adoption behaviors. By validating and extending the UTAUT2 model, the study provides actionable recommendations for policymakers and educators. These findings not only enhance theoretical understanding but also pave the way for future advancements, ensuring the effective and sustainable integration of AI in teaching and learning environments.

Erbas, C., Ture, E., & Sapanca, H. F. (2025). **Exploring meaning-making in instructional technology: A phenomenological study of english language teaching students**. *Education and Information Technologies*, *30*(12), 17289-17322. https://doi.org/10.1007/s10639-025-13450-7
The benefits that different technologies provide to the educational processes have been experienced by educators for years. The advantages hat teachers gain from computers, the internet, different software and technologies that change and develop every passing day have caused students to develop different skills and have also made it a necessity for teachers to be able to use these systems. As a result of these requirements, as a result of the studies of the Higher Education Council and the Ministry of National Education, which regulate higher education in Turkey, courses addressing technology education and the integration of technology into the course have been added to the process. This study aims to understand the technology-based meanings developed by teacher candidates taking the Instructional Technologies (IT) course. Within the scope of the study designed according to Husserl's phenomenology understanding, the study was conducted by 12 English Language Teaching undergraduate students and 3 researchers. It has been observed that the socio-cultural capital of the primary subjects

of the study, English Language Teaching students, has shaped their lives along with their technological capital in the post-truth period. It has been seen that gods with high technology skills have created digital victims through digital world tools. It has been observed that people who were victims in the past can become resisters who engage in passive resistance against the digital world, while individuals who were not victims in the past but were aware of their victimization can become characters who actively resist the process.

Erdreich, L. (2025). **Digital Well-Being and Superdigital Citizenship: A Class Comparison of Parenting Practices for Remote Learning**. *Social Justice Research*, *38*(3), 332-351. https://doi.org/10.1007/s11211-025-00454-4
Using the pandemic as a natural laboratory for exploring edtech, this study is concerned with the changes in parental involvement that the demands of remote-learning elicited and implications for educational justice across classes. Interviews with 25 middle-class and low-income parents revealed classed practices of parental involvement in remote-learning: middle-class parents espouse a digital well-being approach while low-income parents espouse a superdigital citizenship approach. The former is concerned with maintaining what parents see as a healthy balance between children's digital activity and school learning; the latter with ensuring children have access to what parents see as varied resources and opportunities for learning and social connection available online and in face-to-face daily interaction, particularly in school. Classed practices of parental involvement reveal that parental involvement is a salient sphere of educational justice particularly in the context of educational technology implementation, and are implicated in issues of cultural and distributive justice.

Faraon, M., Rönkkö, K., Milrad, M., & Tsui, E. (2025). **International perspectives on artificial intelligence in higher education: An explorative study of students' intention to use ChatGPT across the Nordic countries and the USA**. *Education and Information Technologies*, *30*(13), 17835-17880. https://doi.org/10.1007/s10639-025-13492-x
This study explored factors influencing ChatGPT adoption among higher education students in five Nordic countries (Sweden, Finland, Denmark, Norway, and Iceland) and the USA. The unified theory of acceptance and use of technology 2 (UTAUT2) framework was employed and extended to incorporate personal innovativeness. Data was collected from 586 students recruited through Prolific and analyzed using partial least squares structural equation modeling (PLS-SEM). The findings revealed varying patterns of relationships between different factors and behavioral intention in each region. In the Nordic countries, performance expectancy, hedonic motivation, and habit demonstrated positive relationships with behavioral intention. In the USA, the results revealed positive relationships between behavioral intention and performance expectancy, social influence, habit, and personal innovativeness. Performance expectancy emerged as the strongest predictor of behavioral intention in both regions. In both the Nordic countries and the USA, habit and behavioral intention emerged as the only predictors of ChatGPT use behavior. Behavioral intention demonstrated a marginally stronger influence on use behavior in both regions. These findings offer insights for educators and policymakers regarding AI integration in academic settings by highlighting common drivers and differences in AI adoption patterns.

Feng, L., Liu, M., & Hou, W. (2025). **EFL Teachers' Acceptance of Generative Artificial Intelligence in Teaching and Academic Research: Use Experience as Moderator**. *European Journal of Education*, *60*(3), e70205. https://doi.org/10.1111/ejed.70205
Generative Artificial Intelligence (GAI) technology, represented by large language models, has driven an in-depth transformation of foreign language education and research. In the era of digital intelligence, how digital technology empowers English as a Foreign Language (EFL) teaching and academic research is a new topic for foreign language educators. This research adopts the integration of UTAUT theory to predict the influence of GAI on EFL teachers' teaching and academic research by conceptualising the EFL teachers' teaching and academic research model (ETTAR Model). The inner relationship within the ETTAR Model was examined using analytical software—Smart PLS 4.0. A five-point Likert online questionnaire on ETTAR was distributed among 132 teachers who teach English at foreign language colleges across seven northern Chinese higher educational institutions. The research results indicated that social influence, performance expectancy, effort expectancy and facilitating conditions positively influence teachers' behavioural intentions to use GAI in EFL teaching and research. Moreover, experience had a positive moderating effect on social influence and the behavioural intentions of EFL teachers utilising GAI. This research further confirmed that EFL teachers' teaching with GAI significantly positively impacts their academic research powered by GAI.

Feng, S. (2025). **Group interaction patterns in generative AI-supported collaborative problem solving: Network analysis of the interactions among students and a GAI chatbot**. *British Journal of Educational Technology*, *56*(5), 2125-2145. https://doi.org/10.1111/bjet.13611
Collaborative problem solving (CPS) is an important skill enabling students to co-construct knowledge and tackle complex problems through group interactions. While the importance of group interactions in CPS is well recognized, it is unclear how the emergence of generative artificial intelligence (GAI), with advanced cognitive support, may alter group dynamics in CPS. This study bridges this gap by examining group interactions in GAI-supported CPS, focusing on the structural patterns and interaction content characterizing students' social dynamics. Six groups of three to five students used an online messaging tool with a GPT-4.0 enabled chatbot for a CPS activity. Group interactions were modelled using network analysis and interaction content was coded into socio-emotional, cognitive, metacognitive, and coordinative dimensions. Employing a network assortativity measure and a binomial test to the interactions among students and the GAI chatbot, we identified a GAI-centred interaction pattern in which students tended to interact significantly more with the chatbot than their peers in the collaborative problem-solving process. Students' interactions with the chatbot involved primarily cognitive interactions but also metacognitive and socio-emotional interactions. This study introduces novel network methods to analyse small group interactions and contributes new empirical evidence and theoretical insights into the social influence of GAI tools, emphasizing the need for further investigations on the factors influencing interaction dynamics among students and GAI tools in collaborative learning.

Ferreira, J., & Kendrick, M. (2025). **"They hear it from me": Student voices on critically assessing digital multimodal composing**. *International Journal of Educational Research*, *133*, 102737. https://doi.org/10.1016/j.ijer.2025.102737
This ethnographic case study investigates how student perspectives on digital multimodal composing (DMC) practices can inform a justice-oriented approach to assessment in

English Language Arts (ELA). While existing research often privileges teacher perspectives in assessing DMC, this study centres the voices of two culturally and linguistically diverse Grade 8 students in a Canadian ELA classroom. Drawing on multimodality, critical digital literacies, and disciplinary literacies, we examine interviews, self-assessment reflections, student-suggested rubrics, and final DMC projects to understand how youth critically apply digital, multimodal and disciplinary tools to design digital stories and video essays that challenge social injustices. Our thematic analysis reveals that students remix digital tools, such as voiceovers, music, and visual design, not only to meet assignment expectations but also to critically engage their audience. Student perspectives on their DMC practices emphasize their multimodal and audience awareness, including intentional choices about sound, pacing, and visual impact. Students also engage in disciplinary weaving, combining self and world connections with judicious sourcing to denounce racial, cultural, and gender discrimination. These insights fostered transparency and enabled the classroom teacher to provide formative, student-responsive feedback and honour diverse ways of knowing. This study contributes to current scholarship by advancing a justice-oriented model of DMC assessment that values student agency and encourages educators to assess how students reorient digital, multimodal and disciplinary tools toward social justice. By foregrounding student voices, this study positions justice-oriented DMC assessment as a pedagogical tool capable of disrupting hegemonic norms in disciplinary classrooms.

Filiz, O., Kaya, M. H., & Adiguzel, T. (2025). **Teachers and AI: Understanding the factors influencing AI integration in K-12 education**. *Education and Information Technologies*, *30*(13), 17931-17967. https://doi.org/10.1007/s10639-025-13463-2
This study investigates the psychological and pedagogical factors influencing K-12 teachers' readiness to integrate artificial intelligence (AI) into educational settings. An exploratory qualitative approach was employed, involving 66 teachers from 11 disciplines at a private school in Türkiye participating in a professional development program focused on AI-enhanced teaching. Data were collected through online discussion forums and AI-supported learning activity design tasks and analyzed using inductive thematic analysis. Findings reveal that teachers valued AI for its efficiency, interactivity, and adaptability, particularly in tools like ChatGPT and MagicSchool, which supported personalized learning and lesson planning. However, significant challenges emerged, including technical issues, curriculum misalignment, ethical concerns, and cultural barriers, such as difficulties adapting AI-generated content to local contexts. The study concludes that while AI offers significant potential to enhance education, successful integration requires addressing the identified barriers through targeted support, resources, and ethical guidelines. Implications for further research include exploring diverse educational settings to generalize findings, conducting longitudinal studies to assess long-term impacts, and investigating strategies to align AI tools with existing curricula and ethical standards.

Folny, V. (2025). **Les enjeux du recours à une intelligence artificielle pour la correction d'un test de langues : l'exemple du test de connaissance du français (TCF)**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vt
En 2019, France Éducation International a lancé un projet d'automatisation de la correction des écrits du test de connaissance du français (TCF), en partenariat avec l'Université catholique de Louvain. FEI a développé un modèle basé sur l'apprentissage profond (Deep Learning). Cette solution améliore l'équité, réduit les coûts et optimise le

processus grâce à l'intelligence artificielle. L'introduction d'un système de correction automatisé améliore le service aux utilisateurs sans changer fondamentalement le travail des organismes certificateurs. Le temps gagné permet d'améliorer les outils et leur surveillance. Toutefois, il est crucial de mettre en place des mesures de contrôle, de validité, de fidélité et d'éthique, avec des analyses régulières pour assurer la pertinence des résultats

Fülöp, M. T., & Cifuentes-Faura, J. (2025). **Digital approaches in sustainable entrepreneurship training: Effects on student well-being and satisfaction**. *Education and Information Technologies*, *30*(11), 14893-14924. https://doi.org/10.1007/s10639-025-13390-2
Sustainable entrepreneurship training is becoming increasingly important in the age of digitalization, as it provides future entrepreneurs with the necessary skills to develop responsible and innovative business models. The analysis shows that effective training in this area must involve digital technologies to convey sustainable practices in a practical way. Three theoretical models—expectancy disconfirmation theory, spillover theory, and social stimulus–organism–response theory—play essential roles in this effort. The current research focuses on the main factors that influence the statistics and well-being of students, with a primarily quantitative methodology based on the questionnaire method. Research findings show that skills such as information seeking, data evaluation, digital navigation, and data protection awareness are crucial to promoting student satisfaction and preparing them for the challenges of the modern business world. Therefore, educational institutions should develop curricula that combine digital and sustainable skills to ensure holistic training. Future research should examine how digital technologies can further improve the implementation of sustainable business models and how cultural differences influence the teaching of these skills.

Garcia, M. B. (2025). **Teaching and learning computer programming using ChatGPT: A rapid review of literature amid the rise of generative AI technologies**. *Education and Information Technologies*, *30*(12), 16721-16745. https://doi.org/10.1007/s10639-025-13452-5
The emergence of generative AI tools like ChatGPT has sparked investigations into their applications in teaching and learning. In computer programming education, efforts are underway to explore how this tool can enhance instructional practices. Despite the growing literature, there is a lack of synthesis on its use in this field. This rapid review addresses this gap by examining the current literature to outline research trends, assess how it supports teaching and learning processes, and discern the issues that emerge from its application in programming instruction. A total of 107 documents disseminated across 81 distinct sources and authored by 394 contributors were identified. The review adopted a broad and inclusive approach, selecting literature based on relevance to ChatGPT's application in programming education and encompassing studies from diverse settings and methodologies. Results highlight applications such as personalized tutoring, knowledge reinforcement, instructional material creation, source code generation, immediate feedback, and assessment support. However, its use also introduces challenges such as academic dishonesty, ethical dilemmas, diminished critical thinking, overdependence on ChatGPT, and various technical limitations. Considering these findings, a balanced approach to the utilization of ChatGPT in programming education is essential. Implications and recommendations have been provided to guide

policymakers, curriculum designers, teachers, and students in harnessing the benefits of this technology while mitigating potential challenges.

García Peñalvo, F. J., Alier Forment, M., Pereira Varela, J. A., & Casany Guerrero, M. J. (2024). **Safe, transparent, and ethical artificial intelligence: keys to quality sustainable education (SDG4)**. *International Journal of Educational Research and Innovation*, *2024*(22). https://doi.org/10.46661/ijeri.11036
The increasing integration of artificial intelligence (AI) into educational environments necessitates a structured framework to ensure its safe and ethical use. A manifesto outlining seven core principles for safe AI in education has been proposed, emphasizing the protection of student data, alignment with institutional strategies, adherence to didactic practices, minimization of errors, comprehensive user interfaces, human oversight, and ethical transparency. These principles are designed to guide the deployment of AI technologies in educational settings, addressing potential risks such as privacy violations, misuse, and over-reliance on technology. Smart Learning Applications (SLApps) are also introduced, integrating AI into the existing institutional technological ecosystem, with special attention to the learning management systems, enabling secure, role-adaptive, and course-specific learning experiences. While large language models like GPT offer transformative potential in education, they also present challenges related to accuracy, ethical use, and pedagogical alignment. To navigate these complexities, a checklist based on the Safe AI in Education principles is recommended, providing educators and institutions with a framework to evaluate AI tools, ensuring they support academic integrity, enhance learning experiences, and uphold ethical standards.

Gonnet, A., & Roux, N. (2025). **Introduction : Penser le « travail numérique » des jeunes comme norme d'insertion professionnelle et sociale**. *Agora débats/jeunesses*, *100*(2), 38-48. https://doi.org/10.3917/agora.100.0038

Gonthier, M.-E., Tremblay, M.-J., & Gohier, M. (2025). **Utilisation pédagogique de l'IA à l'université : trois récits de pratique en orthodidactique du français, en psychologie et en histoire**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-14
Cet article met en commun trois démarches d'intégration des outils d'intelligence artificielle (IA) ChatGPT et Transkribus réalisées par des ressources enseignantes au sein d'une même université dans trois disciplines différentes : en orthodidactique du français, en psychologie et en histoire. Les objectifs de ces initiatives étaient de mettre les technologies au service de l'enseignement et de stimuler les apprentissages chez les personnes étudiantes. La nécessité de réfléchir à l'intégration de l'IA en pédagogie universitaire, et plus spécialement dans ces disciplines, est d'abord contextualisée. Les activités pédagogiques menées en classe sont ensuite présentées à travers les étapes de leur réalisation. À la fin de chaque récit de pratique, un retour est effectué sur l'expérience détaillant les résultats obtenus et leurs impacts, et des recommandations pour les personnes enseignantes désirant intégrer l'IA dans cette discipline sont formulées. Enfin, quelques conseils généraux pour les ressources enseignantes souhaitant faire appel à l'IA en contexte pédagogique sont proposés en conclusion.

Granjon, F., & Craheix-Gadhgadhi, I. (2025). **Insertion sociale et inclusion numérique des jeunes migrants**. *Agora débats/jeunesses*, *100*(2), 117-132. https://doi.org/10.3917/agora.100.0117

Cet article porte sur les difficultés d'insertion que rencontrent les jeunes migrants majeurs dans leurs relations à l'administration et à son instrumentation numérique. Il met en lumière que celles-ci relèvent de la non-maîtrise de certains savoir-faire pratiques qui tiennent autant à l'acquisition d'une « littératie numérique » et de compétences manipulatoires qu'à un rapport particulier aux institutions de la société d'accueil pouvant notamment conduire à des situations de non-recours. Il montre aussi l'importance de l'accompagnement (in)formel sur lequel les jeunes ressortissants étrangers prennent appui pour franchir certains des obstacles qui se présentent à eux, notamment dans leurs rapports à l'État et à ses administrations.

Gu, P., Wu, J., Cheng, Z., Xia, Y., Cheng, M., & Dong, Y. (2025). **Scaffolding self-regulation in project-based programming learning through online collaborative diaries to promote computational thinking**. *Education and Information Technologies*, *30*(12), 16243-16267. https://doi.org/10.1007/s10639-025-13367-1
Teaching computational thinking skills to novice college students via programming poses considerable challenges. It involves learning programming language syntax and commands, along with fostering higher-order skills crucial for both computational thinking proficiency and future careers. To address this, we proposed a pedagogical approach integrating project-based learning with self-regulated learning in a C programming course. Guided by the higher-order computational thinking framework, this quasi-experimental study enrolled 173 students divided into three groups, a group with project-based learning design alone, a group with both project-based learning design and self-regulated learning scaffolding, and a control group with traditional teacher centered teaching. One-way analysis of covariance results showed the group with both project-based learning design and self-regulated learning scaffolding presented the most advancement of problem-solving and metacognitive skills. Paired samples t-tests showed this group also displayed the most significant improvements in computational thinking tendency and other higher-order skills. While the students' cognitive knowledge gain in the group with both pedagogical supports didn't surpass students of the control group, it did outperform students from the group with project-based learning design alone. Overall, our findings supported the effectiveness of this integrated method in boosting computational thinking and other higher-order skills in novice programming students. This warranted further research to refine and enhance the proposed pedagogical strategy.

Guang, F., & Xueliang, Z. (2025). **Research on the impact mechanisms of immersive virtual reality technology in enhancing the effectiveness of higher folk dance education: Base on student perspective**. *Education and Information Technologies*, *30*(11), 15467-15505. https://doi.org/10.1007/s10639-025-13413-y
Traditional higher education in folk dance faces challenges such as limited resources and uneven teaching effectiveness. The introduction of Immersive Virtual Reality (IVR) technology offers potential solutions to these issues; however, there is a lack of research to substantiate its efficacy. Therefore, this study aims to explore the application effects of IVR technology in higher folk dance education. Through experimental design and questionnaire surveys, the study collected and analyzed the learning experiences and outcomes of 491 students in an IVR environment. Empirical results indicate that the three characteristics of immersive virtual reality technology—immersion, interactivity, and personalization—can directly enhance the educational effectiveness of higher folk dance education. Secondly, the immersion, interactivity, and personalization of immersive virtual reality technology can promote classroom perceived usefulness, ease

of learning, and interestingness. Thirdly, classroom perceived usefulness, ease of learning, and interestingness can significantly enhance the educational effectiveness of higher folk dance education. Fourthly, classroom perceived usefulness, ease of learning, and interestingness each play a significant mediating role in the process where immersion, interactivity, and personalization of immersive virtual reality technology enhance the educational effectiveness of higher folk dance education. In terms of theoretical contributions, this study expands the research framework in the fields of educational technology and dance education, providing new perspectives and methodological foundations, and revealing the important role of IVR technology in education. Practically, this study offers valuable references for educators and technology developers, thus promoting the development of higher folk dance education. Through the findings and conclusions of this study, we demonstrate the immense potential of technology in educational innovation, providing new directions and references for higher folk dance education.

Guo, Y., Song, Y., & Guo, J. (2025). **The curvilinear relationship between cyberloafing and academic performance among college students: an empirical evidence from China**. *Education and Information Technologies*, *30*(13), 18327-18346. https://doi.org/10.1007/s10639-025-13499-4
The digital transformation in education and the widespread use of mobile devices have blurred the boundaries between students' learning and entertainment, increasing the prevalence of cyberloafing among college students. To address the inconsistent effects of cyberloafing on academic achievement, this study proposed a curvilinear relationship based on the cognitive load theory (CLT) and the effort-recovery model (ERM). We collected data through a nationwide survey conducted in Chinese higher education institutions, with a total of 98,360 valid responses. A polynomial regression analysis was used to examine the non-linear relationship between the extent of cyberloafing and college students' academic performance. The findings suggested an inverted U-shaped association between college students' cyberloafing behavior and their academic performance, indicating that moderate levels of cyberloafing may enhance academic achievement, whereas excessive cyberloafing was associated with a decline in academic performance. Furthermore, physical exercise played a buffering role in this inverted U-shaped relationship, with college students who engaged in lower levels of exercise experiencing a more pronounced adverse effect of cyberloafing on their academic performance compared with their physically active peers. By adopting a dialectical approach, this research sheds light on the complexities and nuances of cyberloafing, thereby enriching our comprehension of this phenomenon. In terms of practice, the findings of this study can help students harness its positive effects while minimizing the negative effects.

Haddou, Y., Talbi, O., Ouared, A., & Chadli, A. (2025). **A learning assistance framework for supporting and analyzing student teams in project-based learning**. *Education and Information Technologies*, *30*(13), 18579-18620. https://doi.org/10.1007/s10639-025-13503-x
As Project-Based Learning (PjBL) becomes a cornerstone of modern education, effective support and analysis tools are crucial for enhancing collaborative learning experiences and achieving educational goals. However, challenges such as managing overload related to the rigor and demands of project-based activities (e.g., meetings, writing reports, deliverables), handling potential disruptions within teams, and maintaining team

engagement often hinder the successful implementation of PjBL in higher education. This paper presents a learning assistance framework designed to support and analyze teams in PjBL. It identifies three key challenges: (i) managing overload while supporting teams; (ii) tracking the full range of interactions within student teams related to their digital learning traces and learning experiences; and (iii) perceiving and maintaining student team engagement to prevent disengagement. We analyze these challenges to derive requirements for supporting and analyzing teams in PjBL and propose a conceptual framework that addresses these needs. The ASTRA-PjBL framework is based on three seamlessly integrated components to effectively manage these challenges: Support, which provides a structured environment to support student teams; a Learning Experience Repository, which facilitates the reuse of learning experiences; and Teams Data Analytics, which uses Learning Analytics (LA) to gain a comprehensive view of team states and to map behavior. The assistance plugin for the Moodle community is fully available. Experimental validation demonstrates the usefulness and effectiveness of our framework.

Hadizadeh, A., & Kanık, M. (2025). **Undergraduate Students' Conceptions of Academic Writing at the Intersection of English Medium Instruction and the Digital Age**. *European Journal of Education*, *60*(3), e70162. https://doi.org/10.1111/ejed.70162
This qualitative study explores the perceptions and conceptions of academic writing among 14 ELT students in an English medium instruction (EMI) context at an international university in Northern Cyprus, an under-researched setting. The study revealed that participants faced a variety of challenges and employed strategic approaches that created learning opportunities in their academic writing practices. The findings indicated that students encountered task-internal challenges (e.g., language proficiency and planning difficulties) and task-external constraints (e.g., time pressures and reliance on online resources). Emotional responses, such as self-doubt, particularly regarding academic integrity, were also common. Despite these challenges, students used strategies like independent research, peer support and language tools to overcome difficulties. The study emphasises the importance of positive instructor feedback and the motivational role of digital tools. The findings suggest that combining in-class writing instruction with digital tools outside the classroom can enhance academic writing while maintaining academic integrity and authenticity.

Haider, N., & Habiba, U. (2025). **From Query to Knowledge: Evaluating University Students' Online Searching Proficiency and Its Connection to Critical Thinking and Research Skills**. *European Journal of Education*, *60*(3), e70144. https://doi.org/10.1111/ejed.70144
In today's digital age, efficiency in navigating, interpreting, and using internet-based content is Crucial for academic achievement. This study evaluates university students' web search abilities and how they connect to their research and critical thinking capabilities. It also looks at the ways in which critical thinking and online search competency mediate each other. This research utilised a quantitative research design, collecting data from respondents through a Google Forms survey. Participation in the online survey consisted of 365 students, including 193 females and 172 males, which was distributed via email. The findings of testing hypotheses using partial least squares structural equation modelling (PLS-SEM) revealed that critical thinking skills were significant ($p = 0.003$), although internet search proficiency had an insignificant influence ($p = 0.538$). Differences in search proficiency also impacted students' critical thinking, research, and internet search skills. The study also discovered that these skills were

adversely affected by barriers to search proficiency. Furthermore, there were substantial direct correlations between the mediating effects of critical thinking and the ability to perform effective online searches. This study contributes noteworthy implications for improving students' digital literacy via a novel analytical approach, the interplay between search competence, critical thinking, and research skills. Through examining the interrelationship among these core competencies, this investigation reveals opportunities to apply targeted instructional approaches that can encourage more strategic and effective digital information-gathering and strengthen students' overall academic performance.

Han, I. (2025). **Development of self-directed learning readiness of English language learners through mobile-assisted problem-based learning**. *International Journal of Educational Research*, *133*, 102729. https://doi.org/10.1016/j.ijer.2025.102729
This study investigated the effects of mobile-assisted problem-based learning (PBL) on self-directed learning readiness (SDLR) among university students. Using an SDLR scale, pre- and post-surveys were conducted with 75 students enrolled in general English courses at a Korean university in 2024. Results show the students' significant improvements in SDLR, particularly in learning strategy management and technical proficiency. Increase was also observed in some items in learning proficiency in presentations and discussions, learning proficiency in lectures, assignment management, material comprehension competence, examination management, time management, and procrastination management. However, in the last category, a significant decline in concentration during lessons was identified. Gender differences revealed mobile-assisted PBL is especially effective for males in planning learning and goal-setting, although their concentration on learning decreased. Females were less likely to review test outcomes but showed better emotional control in the process of learning. These findings affirm mobile-assisted PBL as a valuable pedagogy for enhancing learner SDLR. Implications for contextualised practice of mobile-assisted PBL are discussed.

Han, Y., Yang, S., Han, S., He, W., Bao, S., & Kong, J. (2025). **Exploring the relationship among technology acceptance, learner engagement and critical thinking in the Chinese college-level EFL context**. *Education and Information Technologies*, *30*(11), 14761-14784. https://doi.org/10.1007/s10639-025-13375-1
Critical thinking (CT) has long been acknowledged as a fundamental goal of higher education, but how it associates with technology acceptance (TA) and learner engagement (LE) of Chinese learners of English as a foreign language (EFL) at the college level is underexamined. This article aimed to investigate the interrelationships among technology acceptance, learner engagement and critical thinking. Descriptive statistics generated from the questionnaire data disclosed that the 1026 participants exhibited decreasing but acceptable levels respectively in TA, LE and CT. Correlation analyses manifested the significant effects of both technology acceptance and learner engagement on critical thinking. Regression analyses further highlighted learner engagement played as a mediator in the correlation between the other two variables. Additionally, technology acceptance was also found to mediate the influence of learner engagement on critical thinking to a minor degree. By addressing the research gap on the intricacies of the three factors stressing the bidirectionality of TA and LE, the study offered valuable pedagogical insights into engagement-enhancing integration of technology into College English course to promote learners' acceptance and proper use of technology for cultivating critical thinking at the tertiary level.

Hania, A., Waqas, M., & Chunyan, X. (2025). **Enhancing Teaching Competency in Higher Education: The Role of AI Efficacy, Social Media Use and Classroom Dynamics**. *European Journal of Education*, *60*(3), e70197. https://doi.org/10.1111/ejed.70197
The pursuit of enhanced teaching competency in higher education necessitates understanding multifaceted factors that influence effective teaching practices. This study investigated how AI efficacy, social media use and classroom dynamics enhance teaching competency among higher education faculty. Grounded in Bandura's Social Cognitive Theory, we analysed data from 304 university instructors using structural equation modelling. Results reveal that AI efficacy positively influences social media use, which significantly enhances teaching competency. While AI efficacy demonstrates no significant direct impact on teaching competency, its substantial indirect effect through social media use indicates complete mediation. Classroom dynamics, encompassing student engagement patterns, participatory learning environments and interactive teaching methods, emerge as a foundational element that strengthens both social media adoption and overall teaching effectiveness. The collaborative interaction between classroom dynamics and AI efficacy creates optimal conditions for technology-enhanced pedagogical practices. These findings highlight the interconnected roles of AI efficacy, social media engagement and classroom dynamics in fostering teaching excellence. The study offers valuable insights for educational institutions developing comprehensive faculty development programmes that integrate technological competency with pedagogical innovation in higher education settings.

Hannula, E., Sormunen, K., Hakkarainen, K., & Korhonen, T. (2025). **Students' experienced learning from co-invention projects in the context of the Innokas programming and robotics tournament**. *Education and Information Technologies*, *30*(13), 19183-19211. https://doi.org/10.1007/s10639-025-13509-5
Transdisciplinary invention projects based on traditional and digital fabrication technologies engage young people in designing and making complex artifacts and constitute a central aspect of future-oriented education. In Finland, comprehensive school students (aged 7–15) from all over the country can practice their inventive skills in the annual Innokas programming and robotics tournament. However, little is known about how students' learning manifests in the context of programming and robotics tournaments. To fill this research gap, this study was conducted to examine students' co-invention processes and the nature of the artifacts invented for the 2021 Innokas tournament. We analyzed the inventions produced, traced the co-invention processes, and examined the design roles and learning experiences of the team members. The data were obtained from semi-structured student interviews (n = 30) and included documents (videos, invention plans, and digital process diaries) that 10 teams generated during the co-invention processes. We analyzed the data via qualitative content analysis. The results provide multifaceted knowledge regarding material prototyping in the iterative co-invention processes and the types of inventions that the teams created. The team members played various design roles, and their tasks were mostly shared. The teams rarely decided on the roles beforehand, but different team members could play the roles at some point in the work. The students' interview responses indicated that they learned technological, social, and process skills during the co-invention process. The problems encountered during the process were related to collaboration and project management and to technological challenges.

Hazzan-Bishara, A., Kol, O., & Levy, S. (2025). **The factors affecting teachers' adoption of AI technologies: A unified model of external and internal determinants**. *Education and Information Technologies*, *30*(11), 15043-15069. https://doi.org/10.1007/s10639-025-13393-z

This study examines factors influencing teachers' intention to adopt Generative AI technologies in education by extending the Technology Acceptance Model (TAM). The proposed comprehensive model incorporates both external factors (exposure to AI information, information credibility, and institutional support) and internal factors (intrinsic motivation and self-efficacy). A survey of 400 teachers reveals that teachers' exposure to credible AI information positively influences perceptions of Generative AI usefulness, which ultimately impacts their intention to use AI. Importantly, institutional support has both direct and indirect effects on teachers' intention to use AI, with the indirect effect mediated by the internal factors of intrinsic motivation and self-efficacy. This research complements TAM theory by integrating psychological and contextual factors, offering a nuanced framework for understanding Generative AI adoption in educational settings. The findings suggest that for educational leaders and policymakers, developing strategies that allocate resources for infrastructure, technical support, and professional development—such as Generative AI training programs—will be crucial in driving Generative AI adoption among teachers. By addressing both external and internal determinants, this study provides a comprehensive perspective of the dynamics behind technology acceptance in the classroom.

Herman, J., & Lara-Steidel, H. (2025). **Artificial Intelligence on Campus: Revisiting Understanding as an Aim of Higher Education**. *Educational Theory*, *75*(4), 603-625. https://doi.org/10.1111/edth.70026

The launch of the powerful generative AI tool ChatGPT in November 2022 sparked a wave of fear across higher education. The tool could seemingly be used to write essays and do other work without students putting in the effort expected of them. In this paper, Jamie Herman and Henry Lara-Steidel posit a way of addressing the concerns over ChatGPT and increasingly powerful generative AI tools in the classroom by first examining what exactly, if anything, widespread AI use undermines in education. That question, they argue, is logically prior to the question of what to do or how best to embrace new advances in AI technology. They propose that ChatGPT, rather than threatening student cognitive development and effort, reveals a serious flaw in higher education's current aims and assessments: they are directed at knowledge, not understanding. Herman and Lara-Steidel review the distinction between knowledge and understanding to argue that aiming for the latter requires work and effort from students, ensuring that they develop cognitive agency. They further note that assessments in higher education are typically geared toward measuring knowledge, not understanding, and suggest that this makes them particularly vulnerable to being undermined by AI use, while assessments of understanding do not. Although AI can enhance and aid students in developing understanding, it can neither provide them with understanding nor give the appearance of understanding without student effort. After addressing some salient objections, the authors conclude by outlining avenues for designing understanding-based assessments in higher education compatible with AI tools such as ChatGPT, and they provide a framework for both understanding and responding to generative AI use in education.

Hidayatullah, A., & Csíkos, C. (2025). **Association between psychological need satisfaction and online self-regulated learning**. *Asia Pacific Education Review*, *26*(3), 609-619. https://doi.org/10.1007/s12564-023-09910-9
The role that psychological need satisfaction and self-regulated learning play in academic online learning has been extensively researched. However, the impact of the three psychological needs, perceived autonomy, competence, and relatedness, on online self-regulated learning remains unclear. This investigated the association between the satisfaction of psychological needs and the six dimensions of online self-regulated learning. This cross-sectional study adopted a quantitative approach. In all, 315 students from four higher education institutions participated in the present study. Students were asked to complete the online questionnaire of psychological need satisfaction and an online self-regulated learning questionnaire. Structural equation modeling was performed to examine the structural relationships between the two. Our study showed that perceived autonomy predicted goal setting, environment structuring, time management, and self-evaluation but did not predict help-seeking and task strategies. Perceived competence did not predict environment structuring. Perceived relatedness predicted environment structuring, help-seeking, and self-evaluation. This study appears to be the first to examine the predictions of need satisfaction to increase students' capability in regulating their learning.

Hoang, L. P., Le, P. A., Le, H. T., Nguyen, D. T., Phan, T. C., Le, H. T., … Tran-Duong, Q. H. (2025). **Evaluating educational assessment competence of pre-service teachers: extended standards in the context of digital classroom assessment transformation**. *Education and Information Technologies*, *30*(12), 16347-16374. https://doi.org/10.1007/s10639-025-13467-y
This study explores the transformation of teaching and assessment methods in the context of media applications, particularly the rise of E-learning and blended teaching driven by rapid ICT advancements. These changes necessitate updates in teachers' teaching and assessment literacies to align with modern educational trends. This adaptation is essential for broadening the criteria of teachers' educational assessment competencies, particularly in pre-service teacher training programs. A comprehensive review of published research (1990–2020) revealed a gap in standards specifically tailored for evaluating pre-service teachers' educational assessment competencies. Existing standards, designed for both pre-service and in-service teachers, fail to account for the lack of real-world experience among pre-service teachers, potentially omitting key assessment criteria. To address this, the study introduces an adaptive KPIE framework (Knowledge, Practice, ICT integration, and Ethics) for measuring pre-service teachers' educational assessment competencies. This framework underpins the development of adaptive assessment standards tailored for pre-service teachers. Rigorous testing of these standards demonstrated strong reliability (Cronbach's Alpha = 0.986, KMO = 0.980) and was applied to evaluate 314 pre-service teachers across two educational universities. Results highlighted significant practical insights into pre-service teachers' classroom assessment competencies. These findings offer a foundation for refining training programs, strategies, and plans to better equip pre-service teachers for educational innovation.

Hoang, N. H. (2025). **E-leadership in the AI era: Exploring Vietnamese EFL teachers' digital leadership development in AI integration**. *Education and Information Technologies*, *30*(12), 16895-16928. https://doi.org/10.1007/s10639-025-13451-6

The integration of artificial intelligence (AI) in language education necessitates new forms of digital leadership, yet research on how language teachers develop e-leadership competencies remains limited, particularly in non-Western contexts. This study investigates how Vietnamese EFL teachers develop and exercise e-leadership competencies in implementing AI tools. Using an exploratory sequential mixed-methods design, the study combined in-depth interviews with 17 EFL teachers and a survey of 211 teachers across Vietnamese universities. The research framework integrated e-Leadership Theory and the Technology Acceptance Model. Key findings reveal that successful e-leadership requires a balance of technical proficiency ($\beta = 0.31$, $p < 0.001$) and cultural sensitivity ($\beta = 0.28$, $p < 0.001$). Three primary dimensions of e-leadership competencies emerged: technological proficiency with guidance capability, pedagogical innovation in AI integration, and culturally responsive change management. The research also highlights critical ethical considerations in AI implementation, particularly regarding assessment transparency and decision-making processes. These findings inform the development of culturally sensitive professional development programs and provide a framework for understanding e-leadership development in non-Western educational settings.

Hong, X., & Guo, L. (2025). **Effects of AI-enhanced multi-display language teaching systems on learning motivation, cognitive load management, and learner autonomy**. *Education and Information Technologies*, *30*(12), 17155-17189. https://doi.org/10.1007/s10639-025-13472-1
The study investigates the effects of AI-enhanced multi-display language teaching systems on English as a Foreign Language (EFL) learners. Utilizing a pretest–posttest random assignment experimental design, the research involved 302 EFL students aged 19 to 28 in a higher education setting. The study examines the effects of AI-powered virtual tutoring, interactive language learning platforms, and AI-supported collaborative learning environments on learning motivation, cognitive load management, and learner autonomy. The results indicate significant improvements in cognitive load management, motivation, and learner autonomy among students who participated in AI-enhanced interventions compared to a control group. Notably, the group using AI-powered virtual tutoring demonstrated the greatest improvement. The findings highlight the theoretical potential of AI-enhanced environments to improve EFL learning outcomes and underscore the practical importance of integrating AI interventions in language education to enhance motivation, manage cognitive load, and foster learner autonomy.

Hossen, M. K., & Uddin, M. S. (2025). **From data to insights: Using gradient boosting classifier to optimize student engagement in online classes with explainable AI**. *Education and Information Technologies*, *30*(13), 18089-18130. https://doi.org/10.1007/s10639-025-13500-0
Online learning continues to expand due to globalization and the COVID-19 pandemic. However, maintaining student engagement in this new normal has become increasingly difficult. Conventional techniques, such as self-reports and manual observations, often fall short of capturing the subtle behaviors that indicate attentiveness. This emphasizes the necessity for sophisticated tools to assess engagement effectively. The proposed system introduces an innovative approach to monitoring student attention in online learning environments by integrating computer vision techniques with a Gradient Boosting classifier (GBC). It conducts a multimodal analysis of behavioral cues captured

through a standard webcam, such as facial expressions, hand movements, mobile phone usage, and head poses, to enable a comprehensive and accurate evaluation of student engagement. With thorough validation on a dataset of 6,000 records, the GBC model outperformed traditional approaches and other machine learning algorithms by attaining an accuracy of 99.13%. Through the utilization of Explainable AI (XAI) tools such as LIME and SHAP, we increased the transparency and interpretability of our model. This allows educators to gain a better understanding of the elements that influence student engagement, hence promoting trust among all stakeholders involved. The system's focus on resource efficiency and scalability makes it adaptable to diverse educational settings without extensive infrastructure. The user-friendly web interface facilitates real-time monitoring, seamlessly integrating with popular e-learning platforms and providing detailed, anonymized reports. This enables instructors to make data-driven interventions to enhance teaching strategies and offers actionable insights to improve learning outcomes. Non-identifiable data collection meets ethical requirements while maintaining privacy and producing insightful engagement metrics.

Hoteit, L., Ivers, L., Dupoux, P., Schenck, M., Choufari, B., Mwangi, S., & Mathir, A. (2025). ***Boosting Education Technology in Africa. Scaling Innovation for the Future of Education*** (p. 13). Consulté à l'adresse Boston Consulting Group website: https://web-assets.bcg.com/0e/31/a166b47b46078350f7be0eec4561/boosting-education-technology-in-africa.pdf

Hou, C., Zhu, G., & Sudarshan, V. (2025). **The role of critical thinking on undergraduates' reliance behaviours on generative AI in problem-solving**. *British Journal of Educational Technology*, *56*(5), 1919-1941. https://doi.org/10.1111/bjet.13613
There is a heightened concern over undergraduate students being over-reliant on Generative AI and using it recklessly. Reliance behaviours describe the frequencies and ways that people use AI tools for tasks such as problem-solving, influenced by individual factors such as trust and AI literacy. One way to conceptualise reliance is that reliance behaviours are affected by the extent to which learners consciously evaluate the relative performance of AI and humans, suggesting the potential impacts of critical thinking on reliance. This study, thus, empirically investigates the relationship between critical thinking and reliance behaviours. Critical thinking includes disposition and skills. However, limited empirical studies have investigated how critical thinking influences learners' reliance behaviours when solving problems with Generative AI. Hence, the current study conducted path analyses to investigate how critical thinking is associated with reliance behaviours and how it mediates the effect of individual factors on reliance behaviours. We collected 808 survey responses on critical thinking disposition and skills, reliance behaviours (a self-developed and validated scale, including reflective use, cautious use, thoughtless use, and collaborative use), trust towards AI, and AI literacy from undergraduates after a problem-solving task with Generative AI. The results indicate that (1) critical thinking is positively associated with the collaborative, reflective, and cautious use of Generative AI, suggesting that these three types of use of Generative AI could be considered desirable behaviours in human–AI problem-solving; (2) trust positively predicts thoughtless use; (3) critical thinking can offset the influence of trust on collaborative, reflective and cautious use; and (4) critical thinking can amplify the influence of AI literacy on reflective, cautious and collaborative use. This study contributes new insights into understanding the role of critical thinking in fostering desirable reliance behaviours, including reflective, cautious and collaborative use, and provides implications for future

interventions when applying Generative AI for problem-solving. Practitioner notes What is already known about this topic? Generative AI tools can potentially enhance problem-based learning (PBL) by supporting brainstorming and solution refinement. Reliance behaviours in human-AI collaboration are influenced by factors such as trust in AI and AI literacy. Strategy-graded reliance emphasizes the reasoning process leading to reliance behaviours, focusing on thoughtful engagement with AI tools, and this cognitive process can be captured by critical thinking. What this paper adds? Critical thinking is positively associated with the reflective, collaborative, and cautious use of Generative AI. Critical thinking mediates the effects of trust and AI literacy on reliance behaviours, amplifying reflective, cautious and collaborative use while mitigating the thoughtless use of Generative AI. The study introduces a nuanced understanding of reliance behaviours by applying a strategy-graded framework, emphasising cognitive engagement rather than a purely outcome-based understanding of reliance behaviours. Implications for practice and/or policy Educational interventions could consider critical thinking when integrating AI tools in problem-solving contexts. Students' trust in AI needs to be balanced with critical thinking skills to reduce overreliance and enhance thoughtful engagement with AI tools.

Hsiao, K.-L., Chen, M.-Y., & Liao, Y.-R. (2025). **Development and evaluation of a metaverse competency scale for university students**. *Education and Information Technologies*, *30*(13), 18301-18326. https://doi.org/10.1007/s10639-025-13520-w
This study developed a Metaverse Competency Scale (MCS) to measure users' proficiency in crucial metaverse skills. The scale was built on a thorough literature review covering digital avatars, immersive experiences, and decentralized value exchange. A two-phase questionnaire approach was employed. In the first phase, a pre-test questionnaire, validated by experts, was administered to 241 participants. Exploratory factor analysis (EFA) resulted in 32 retained items. The second phase involved testing the refined questionnaire with 615 participants and conducting EFA, confirmatory factor analysis, and structural equation modeling, leading to a final 24-item scale. The results indicated strong reliability, validity, and a good model fit, confirming the scale's effectiveness in assessing users' metaverse competencies. Path analysis further revealed that mastery of digital avatars, immersive experiences, and decentralized value exchange was positively associated with higher motivation to engage in metaverse activities. These findings offer valuable insights into user competency and motivation, making the MCS a helpful tool for guiding training and education programs that enhance user participation and experiences in the metaverse.

Hu, L., Chen, Y., & Chen, L. (2025). **A study on the impact of diverse evaluation system on college students' sense of achievement in English learning: An empirical research based on the knowledge graphs of College English**. *Education and Information Technologies*, *30*(13), 17805-17834. https://doi.org/10.1007/s10639-025-13483-y
With the continuous development of higher education, the evaluation of college students' learning has received increasing attention.Understanding the impact of the multiple evaluation system on college students' sense of English learning acquisition is of great significance. It helps educators to better design teaching activities and evaluation methods.This study focuses on 90 freshmen enrolled in the course of College English. Using research tools and methods such as questionnaire, classroom observations, and online tests, the research is to explore the impact of diverse evaluation methods on students' sense of achievement. The findings show that there is a significantly positive correlation

between students' learning behaviors, such as the degree of learning engagement and learning methods, and students' sense of knowledge acquisition. There is a significantly positive correlation between teachers' teaching behaviors such as teaching methods and teaching design, and students' sense of ability acquisition.There is a significantly positive correlation between the learning environment such as timely feedback on student' learning and assessment methods, and students' sense of emotional acquisition.Diversified assessment methods can enhance students' interest in learning, increase their level of engagement, improve their participation in the course, and enhance their sense of achievement. The authors suggest that it is necessary to utilize the learning situation data of the knowledge graph to conduct multi-dimensional and multi-level course evaluations for students, so as to improve students' sense of acquisition in terms of knowledge, abilities and emotions.

Hu, Xing, & Gong, W. (2025). **Modeling Chinese EFL learners' intention to use generative AI for L2 writing through an integrated model of the TAM and TTF**. *Education and Information Technologies*, *30*(13), 18157-18179. https://doi.org/10.1007/s10639-025-13505-9
Amid the growing interest in generative AI technologies like ChatGPT for educational purposes, this research seeks to better understand Chinese EFL learners' acceptance and usage of them for L2 writing purposes. This study conducts an investigation by establishing a structural equation model that incorporates the Technology Acceptance Model (TAM) and Task Technology Fit (TTF) theories. The survey involving 304 university students in China discovered the important roles of the perceived usefulness and perceived ease of use in explaining Chinese EFL learners' attitude, which then influenced their behavioral intention to accept generative AI instruments as an English writing assistant. The other major finding revealed that task technology fit significantly affected their behavioral intention and made an impact through the meditation of attitude. By examining these constructs, the research presents fresh perspectives about the effective integration of generative AI in language education, contributing empirical evidence to promote theoretical understanding and practical applications in L2 English writing instruction.

Hu, Xinyue, Sriwisathiyakun, K., & Sitthiworachart, J. (2025). **Integrating micro-learning and station rotation blended learning model: enhancing Japanese communication skills of Chinese undergraduates**. *Education and Information Technologies*, *30*(12), 16747-16770. https://doi.org/10.1007/s10639-025-13464-1
In the rapidly evolving language education landscape, integrating innovative pedagogical approaches is essential to meet the diverse needs of learners. This study explores the efficacy of a Micro-Learning Media with Station Rotation Blended Learning Model (MLM-SRM) in enhancing the Japanese communication skills—specifically speaking, listening, and reading—of second-year students at Sichuan University. The research employed a pre-test-post-test randomized controlled experimental design, involving 80 students who were randomly assigned to either the MLM-SRM group or a traditional teaching group. Data were collected using well-established rubrics for speaking, listening, and reading skills, and analyzed through mean, standard deviation, Cohen's d, and one-way MANOVA. The results revealed that students in the MLM-SRM group significantly outperformed those in the traditional group in overall language proficiency, with the most substantial gains observed in reading skills, followed by speaking and listening. A deeper analysis highlighted significant improvements in

interactive communication for speaking, interactive and response skills for listening, and text structure for reading among the MLM-SRM participants. Furthermore, a thematic analysis of students' open-ended survey responses underscored a positive reception towards the MLM-SRM, indicating its potential as an effective tool for language instruction. These findings underscore the importance of the MLM-SRM approach, which immerses students in an engaging and diverse learning environment and holds significant implications for theory and practice. This approach can potentially transform how languages are taught and learned globally.

Hu, Y., Xu, Y., & Wu, B. (2025). **A dual-pathway model of teacher-AI collaboration based on the job demands-resources theory**. *Education and Information Technologies*, *30*(11), 15125-15146. https://doi.org/10.1007/s10639-025-13421-y
Artificial intelligence (AI) not only provides new opportunities for the high-quality development of education, but also brings multiple challenges such as psychological anxiety, workload, and role conflicts to teachers. In order to explore the complex interaction mechanism between teachers and AI in the process of human-machine collaboration, this study draws on the job demands-resources (JD-R) model and proposes a dual-pathway model. SPSS-PROCESS Macro software was used to test the research hypotheses. This study found that: (1) AI had both negative and positive effects on teacher-AI collaboration (TAC). Perceived risk, through the partial mediating effect of AI anxiety, negatively influenced TAC. Technology acceptance and AI-TPACK had a positive influence on TAC through the mediation of human-machine compatibility. (2) The support of facilitating conditions buffered the positive association between perceived risk and AI anxiety. (3) Technology acceptance helped teachers cope with AI anxiety induced by perceived risk, and perceived risks, to some extent, promoted the improvement of teachers' human-machine compatibility brought about by technology acceptance. The present study reveals the double-edged sword effect of AI faced by teachers, providing strong support for the constructive interaction and deep integration between teachers and AI.

Huang, A. Y. Q., Lin, C.-Y., Su, S.-Y., & Yang, S. J. H. (2025). **The impact of GenAI-enabled coding hints on students' programming performance and cognitive load in an SRL-based Python course**. *British Journal of Educational Technology*, *56*(5), 1942-1972. https://doi.org/10.1111/bjet.13589
Programming education often imposes a high cognitive burden on novice programmers, requiring them to master syntax, logic, and problem-solving while simultaneously managing debugging tasks. Prior knowledge is a critical factor influencing programming learning performance. A lack of foundational knowledge limits students' self-regulated learning (SRL) abilities, resulting in a performance gap between students with high and low levels of prior knowledge. To address this problem, this study developed CodeFlow Assistant (CFA), a specifically developed generative artificial intelligence (GenAI) tool that provides four levels of scaffolding guidance (flowcharts, cloze coding, basic coding solutions, and advanced coding solutions) to support novice programmers in mastering skills ranging from foundational understanding to advanced application. Through a controlled experiment comparing SRL-based, teaching assistant (TA)-assisted programming (SRLP-TA) and SRL-based, CFA-assisted programming (SRLP-CFA), this study evaluated the effect of CFA on coding performance, cognitive loads, and SRL abilities among novice programming students. The results indicated that compared with the SRLP-TA group, the SRLP-CFA group achieved statistically significantly higher coding

scores but showed comparable improvements in understanding programming concepts. Moreover, CFA reduced intrinsic and extraneous cognitive loads while enhancing germane load, fostering deeper knowledge integration and engagement. These findings highlight the role of CFA in enhancing coding performance, particularly in translating conceptual understanding into practice. This tool also statistically significantly improved SRL abilities, such as intrinsic goal orientation, task value, and metacognitive self-regulation.

Humble, N. (2025). **Higher Education AI Policies—A Document Analysis of University Guidelines**. *European Journal of Education*, *60*(3), e70214. https://doi.org/10.1111/ejed.70214
Artificial Intelligence (AI) has been highlighted as a potentially disruptive force across several industries and in higher education. Research has suggested that education and upskilling of citizens should adopt a broad approach, not only focusing on experts, for better nationwide AI readiness. This study investigates the content of AI policies in higher education by analysing official documents from Swedish universities. It identifies key themes and patterns, comparing them with related research and international guidelines. Expanding on the results of the study, it develops a dynamic alignment model for higher education AI policy (DAMHEAP) which, grounded in institutional theory, highlights strategic, pedagogical, ethical and legal, operational and adaptive alignments. This model, together with 10 practical recommendations, provides a roadmap for higher education institutions to develop and maintain AI policies that are pedagogically relevant, ethically responsible and adaptive to technological change.

Huot, S., & Loch, S. (2025). **From rote to reflective: Integrating ChatGPT to transform learning outcomes in Cambodian education**. *International Journal of Language and Literary Studies*, *7*(4), 1-15. https://doi.org/10.36892/ijlls.v7i4.2188
Cambodia's education system has long been shaped by rote memorization, hierarchical classroom structures, and examination-focused curricula, practices that often inhibit the development of critical and reflective thinking. This review explores how ChatGPT, a generative artificial intelligence (AI) tool developed by OpenAI, can serve as a catalyst for shifting Cambodian learning paradigms from repetition-based instruction to more reflective, student-centred engagement. Drawing on a narrative and thematic integrative review of literature published between 2022 and 2025, the study synthesizes empirical and conceptual findings from global and regional sources, aligned with Cambodian policy frameworks. Key themes include ChatGPT's impact on conceptual understanding, learner motivation, and metacognitive development. The findings suggest that while ChatGPT can enhance student learning when used for dialogue, clarification, and feedback, its success depends heavily on pedagogical design, teacher facilitation, and ethical integration. Major challenges include infrastructure gaps, digital literacy limitations, linguistic constraints, and cultural norms around teacher authority. The paper concludes with actionable recommendations for policymakers, educators, and researchers, including the development of Khmer-language AI tools, integration of AI literacy into national curricula, and the need for pilot studies and ASEAN-level comparative research. Ultimately, the review affirms that with inclusive planning and sustained investment, ChatGPT can support Cambodia's transition toward a more reflective, equitable, and future-oriented education system.

Ikpat, N. A. (2025). **Teacher Perceptions of Gamification's Influence on Student Engagement and Learning in Nigerian Primary Schools**. *European Journal of Education*, *60*(3), e70179. https://doi.org/10.1111/ejed.70179
This study investigated teachers' perceptions on the impact of gamification on student engagement and learning outcomes in Nigerian primary schools, aiming to bridge the gap between traditional teaching methods and contemporary learner needs. A mixed-methods approach was utilised, involving quantitative and qualitative data collection through an online survey distributed to 82 primary school teachers. The results revealed that most of the respondents incorporated gamification techniques weekly, with badges and points being the most frequently used elements. Gamification was most commonly applied in Maths, followed by English, Science and other subjects. Teachers perceived significant positive impacts on academic achievement, student participation and knowledge retention, though challenges such as lack of technological resources, curriculum alignment, scepticism from stakeholders, and insufficient teacher training were highlighted. Thematic analysis of qualitative data identified themes related to enhancing problem-solving abilities, catering to diverse learning styles and fostering healthy competition. Despite challenges, the study found unanimous support for gamification, with teachers willing to undergo further professional development. The findings suggest that gamification holds promise for transforming educational environments in Nigerian primary schools by promoting active engagement, motivation, and improved academic performance, although addressing technological and training barriers remains crucial.

Jabagi, N., & Croteau, A.-M. (2025). **L'intelligence artificielle (IA) : amie ou ennemie de la motivation des étudiants et étudiantes universitaires?** *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-04
Dans cet article, nous réfléchissons aux événements et expériences entourant l'utilisation de ChatGPT et d'autres outils d'intelligence artificielle générative (IAg) pour soutenir l'apprentissage étudiant. La théorie de l'autodétermination est utilisée pour structurer nos réflexions, ce qui nous permet de comprendre comment ChatGPT peut améliorer ou diminuer l'automotivation des étudiants et étudiantes, tout en soutenant leurs besoins psychologiques. En nous inspirant de nos expériences et de la littérature émergente, nous proposons des principes directeurs pour les professeurs et professeures afin de renforcer les avantages motivationnels de ChatGPT et de l'IAg, tout en minimisant leurs impacts négatifs.

Jabali, O., Saeedi, M., & Alawneh, Y. (2025). **Navigating anxiety in academia: the role of generative artificial intelligence**. *Education and Information Technologies*, *30*(11), 15529-15544. https://doi.org/10.1007/s10639-025-13433-8
This study explores educators' perspectives on the impact of generative artificial intelligence (AI) on academic roles within Palestinian institutions. Through qualitative interviews and quantitative surveys, the research reveals significant anxiety among educators, particularly concerning the potential decline of traditional roles, educational standards, and ethical implications of AI integration. While the study sought to identify demographic differences in concerns, the analysis found no statistically significant variations among respondents. Qualitatively, the study results showed that 69.2% of respondents expressed anxiety about the reduction of traditional teaching roles, 55.8% raised concerns regarding the potential decline in educational quality. Ethical

implications, including privacy and research integrity, were significant themes, with 26.9% indicating strong concern in this area. Participants also highlighted the need for increased training and collaboration between educators and technology developers. The findings reveal a nuanced landscape where educators recognize the potential of AI to enhance educational practices while simultaneously grappling with the complexities and ethical challenges it presents. The study underscores the necessity for robust frameworks and professional development initiatives to ensure that AI adoption in academia benefits both educators and students in Palestine.

Ji, Y., Zhong, M., Lyu, S., Li, T., Niu, S., & Zhan, Z. (2025). **How does AI literacy affect individual innovative behavior: the mediating role of psychological need satisfaction, creative self-efficacy, and self-regulated learning**. *Education and Information Technologies*, *30*(11), 16133-16162. https://doi.org/10.1007/s10639-025-13437-4
The emergence of generative artificial intelligence (GAI) has significantly transformed learning patterns and innovative approaches. Human-machine (generative artificial intelligence) co-creation will become the norm, necessitating that learners possess the requisite AI literacy (AIL) to adapt to this shift. The mechanisms by which individual AIL influences innovative behavior (IB) in human-machine collaborative environments remain unclear. Therefore, this study, grounded in the Theory of Planned Behavior (TPB), employs a snowball sampling method to survey 460 university students, utilizing structural equation modeling to analyze the relationships among their AI literacy (AIL), psychological need satisfaction (PNS), creative self-efficacy (CSE), self-regulated learning (SRL), and innovative behavior (IB). The results indicate that AIL does not directly influence learners' IB. PNS, CSE, and SRL serve as mediators between AIL and IB. Furthermore, AIL influences learners' PNS and CSE in innovative activities, which in turn affects their use of SRL to adjust their innovation processes, thereby promoting the application of GAI in generating IB.

Jiang, C., Chen, X., Yu, A., & Liang, G. (2025). **Integration of game evaluation methods into the design of human-computer interaction course test system**. *Education and Information Technologies*, *30*(11), 15027-15042. https://doi.org/10.1007/s10639-025-13423-w
Assignments and tests are the main forms of evaluation in the educational process, students usually lose interest in boring exercises during course learning. In spired of elements from human-computer battle game, a course test system is designed to encourage students to take tests more frequently and actively to achieve better learning effect, which combines the characteristics of human-computer interaction, player kill (PK) game and HL promotion (HLP). The system consists of three main modules: (1) human-computer PK battle to simulate the real competition, (2) HLP mechanism to match the user's learning level, and (3) presetting humorous words to satisfy the simple human-computer interaction. By modeling and simulation conducted on this test system, it can confirm that students with various correct response rates and response speeds can achieve honors levels consistent with their learning levels. The rate of correct answers can be used to determine the honor level (HL), and increasing the speed of answering can also improve the HL to a certain extent. It has been found that adding the PK battle mode of honor rank promotion into the learning system can match the personality characteristics of contemporary college students and help students build self-regulated learning.

Karaca, H., Ertekin, E., & Cagiltay, K. (2025). **Investigating middle school students' eye movements on the mathematical representations: An eye-tracking study**. *Education and Information Technologies*, *30*(11), 16189-16210. https://doi.org/10.1007/s10639-025-13436-5

In mathematics education, representations are used in place of mathematical structures, ideas, or relationships to concretize, transform, and represent them. When students interact with these representations, they engage in various cognitive activities such as thinking, reasoning, understanding, remembering, problem-solving, attention, and decision-making, which are difficult to observe. Therefore, uncovering these cognitive activities is very significant for mathematics education. However, they are not easy to uncover as they cannot be directly observed. Eye tracking is an important approach that can be used to reveal cognitive activities that cannot be directly observed. This study investigated how middle school students examine representations by examining their eye movements. Eighty-five (40 girls and 45 boys) 7th-grade middle school students participated in the study. In the study, gaze durations, fixation count, and fixation duration on four different representation types: verbal representation, symbolic representation, number line representation, and counters representation were compared. The findings showed that students fixated more on the verbal representation and gazed at it for longer. However, fixation durations on the verbal representation were quite short compared to the other representations. In contrast, when examining the counters, there were fewer fixations and shorter gaze durations, but fixation durations were longer. Gazes on the number line and symbolic representation did not differ across all three variables. The findings indicated that gaze on verbal and non-verbal representations differed to some extent, but not entirely. Finally, the findings are discussed in the context of mathematical representation and eye-tracking literature.

Kaur, P. C., & Ragha, L. (2025). **Fuzzy-based DCKN: Fuzzy-based deep convolutional kronecker network for semantic analysis of summarized video**. *Education and Information Technologies*, *30*(11), 15545-15585. https://doi.org/10.1007/s10639-024-13298-3

Video summarization is a method of deducing the content of video content for generating a summary in video format. The generated summary should have the significant segments of raw video. Recently, the content of video has been rapidly increasing, thus automatic video summarization is beneficial for individuals who want to keep time and learn more in a specific time. However, online courses do not fully control the content since it has diverse open challenges in video indexing, customization requirements, and summarization for particular courses. To overcome this gap, a semantic analysis of a summarized video named Fuzzy-based Deep Convolutional Kronecker Network (Fuzzy-based DCKN) is proposed. The input lecture audio and video are carried out on video shot segmentation is done by the YCbCr space color model. Afterwards, segment the audio and video from every slot using the Honey Badger Based Bald Eagle Algorithm (HBBEA), and the features are extracted from this phase. Then, select the important segments by Deep Residual Network (DRN). Furthermore, combine the relevant audio and video to obtain the summarized video. Here, the summarized video is given to frame extraction individually, where the text content extraction and residual image extraction are accomplished by optical character recognition (OCR) and Deep Residual Network (DRN) respectively. The score generation is done with the Deep Belief Network (DBN). Hence, semantic summarization is achieved by Fuzzy-based DCKN along with summarized video. Finally, the proposed semantic extraction module is

directly given to the original lecture input video before summarization and analyzed the outcome with the proposed module after the summarization video. Here, the performance measures like Accuracy, Precision, Recall, F1-score, and Negative predictive value (NPV) used for OCR gained 92.9%, 91.0%, 92.5%, 91.7%, 90.3%, and 7.5%; semantic summarization achieved 92.8%, 91.5%, 92.2%, 91.8%, 90.2%, and 7.8%; DL methods acquired 92.6%, 91.3%, 92.5%, 91.9% and 90.8%, and 7.5%; Fuzzy-based DCKN with video summarization obtained 92.3%, 91.8%, 92.9%, 92.3%, 90.3%, and 7.1%; and Fuzzy-based DCKN without video summarization observed 91.9%, 90.86%, 91.87%, 91.36%, 89.57%, and 8.12%.

Kee, T., Kuys, B., & Zhang, J. (2025). **The architecture for synchronous hybrid peer learning using pedagogy-space-technology (PST) framework**. *Education and Information Technologies*, *30*(12), 16375-16405. https://doi.org/10.1007/s10639-025-13435-6
The paradigm shifts towards synchronous hybrid instruction in higher education, influenced in part by the impact of the post-COVID-19 pandemic and initiatives such as Collaborative Online International Learning (COIL), underscores the need for a comprehensive redesign of digital interactive learning environments. This transformation necessitates the integration of educational technologies and adaptable interior architecture to facilitate a wide range of instructional and learning pedagogies that foster peer learning. Through the utilization of the Pedagogy-Space-Technology (PST) Framework, this study aims to explore the challenges inherent in reconfiguring the "architecture" of synchronous hybrid learning (SHL) environments to promote technology-enhanced collaborative peer learning experiences. Data were gathered from academics at ten higher education institutions, collecting 134 survey responses and outcomes of utilizing a new patented technology of a SHL Console. By examining three key factors of pedagogy, space, and technology, this study investigates the challenges and opportunities associated with facilitating peer learning with new technology. The empirical findings underscore that the integration of interactive educational technology, innovation in pedagogical development, and institutional re-thinking of the architecture of the learning environment are pivotal to effectively promoting peer learning. By offering some recommendations on the re-design of the SHL environment, educators and higher education institutions can create a more engaging, inclusive, and collaborative peer learning experience for students, ultimately promoting academic success and personal growth.

Kelder, J.-A., Crawford, J., Al Naabi, I., & To, L. (2025). **Enhancing digital productivity and capability in higher education through authentic leader behaviors: A cross-cultural structural equation model**. *Education and Information Technologies*, *30*(12), 17751-17767. https://doi.org/10.1007/s10639-025-13422-x
In higher education, the ability to navigate and function well in a diverse digital ecosystem is now essential to student, academic, and professional flourishing and productivity. Universities had to respond to a pandemic that catapulted face-to-face offerings into online and hybrid environments. More recently, a preference for working from home in addition to remote work and the emergence of generative artificial intelligence is straining the capacity of educational leaders to effectively support their workforce. In this international study, we survey 533 university employees (primarily academics) and provide evidence for the effect of authentic leadership on digital productivity through digital capability and digital preparedness to work and to teach. Through structural equation modelling, we identify opportunities to prioritise effective

leadership development with nested digital capability to support universities to build more resilient and productive workers to achieve better educational outcomes. Critically, recognising and developing authentic leader behaviors should be embedded into higher education policy and strategy to improve productivity, including programs to develop academic capability to use digital technologies effectively in their teaching or other academic roles.

Kim, D., Kang, Y., & Borowiec, K. (2025). **Unveiling identities: exploring emotional self-expression and bilingualism through digital storytelling in teacher education**. *Asia Pacific Education Review*, *26*(3), 811-826. https://doi.org/10.1007/s12564-025-10049-y
This article examines how teachers can facilitate professional identity development through digital composition. We describe how two teachers use multimodal digital storytelling to reflect on their histories and advance their professional development. The study uses qualitative case study methods and employs a new analytical framework for analyzing multimodal products like digital stories. Data include semi-structured interviews, digital stories, and classroom observations. We analyzed the digital stories using a multimodal analytical framework informed by Systemic Functional Linguistics. This framework illuminates how the teachers express themselves along four dimensions: representational, interpersonal, compositional, and sociocultural. In both cases, the teachers gave a longitudinal view of their own development from childhood and described how their facility with the symbolic systems of dance and folk art was central to their sense of self. The opportunity to share these stories facilitated emotional self-expression and professional identity development.

Kim, J., Klopfer, M., Grohs, J. R., Eldardiry, H., Weichert, J., Cox, L. A., & Pike, D. (2025). **Examining Faculty and Student Perceptions of Generative AI in University Courses**. *Innovative Higher Education*, *50*(4), 1281-1313. https://doi.org/10.1007/s10755-024-09774-w
As generative artificial intelligence (GenAI) tools such as ChatGPT become more capable and accessible, their use in educational settings is likely to grow. However, the academic community lacks a comprehensive understanding of the perceptions and attitudes of students and instructors toward these new tools. In the Fall 2023 semester, we surveyed 982 students and 76 faculty at a large public university in the United States, focusing on topics such as perceived ease of use, ethical concerns, the impact of GenAI on learning, and differences in responses by role, gender, and discipline. We found that students and faculty did not differ significantly in their attitudes toward GenAI in higher education, except regarding ease of use, hedonic motivation, habit, and interest in exploring new technologies. Students and instructors also used GenAI for coursework or teaching at similar rates, although regular use of these tools was still low across both groups. Among students, we found significant differences in attitudes between males in STEM majors and females in non-STEM majors. These findings underscore the importance of considering demographic and disciplinary diversity when developing policies and practices for integrating GenAI in educational contexts, as GenAI may influence learning outcomes differently across various groups of students. This study contributes to the broader understanding of how GenAI can be leveraged in higher education while highlighting potential areas of inequality that need to be addressed as these tools become more widely used.

Kölemen, E. B., & Yıldırım, B. (2025). **A new era in early childhood education (ECE): Teachers' opinions on the application of artificial intelligence**. *Education and Information Technologies*, *30*(12), 17405-17446. https://doi.org/10.1007/s10639-025-13478-9
This study aimed to evaluate the role of AI in preschool from the perspective of preschool teachers. The research group consisted of 101 preschool teachers. The study group was selected according to the easily accessible case sampling method, one of the purposeful sampling methods. The study was a phenomenology, which is a qualitative research design. Qualitative data were collected using a semi-structured interview form. Data were analyzed using inductive content analysis. As a result of the analyses, the participants stated they did not feel sufficient regarding AI literacy and competencies. The participants also emphasized that using AI in preschool was appropriate and would improve children's skills, such as AI literacy and computational thinking. Moreover, they stated that using AI in preschool would cause privacy and security concerns for different reasons, such as not protecting personal data, using children's pictures, and providing false and misleading information. The participants stated that they were worried about the implementation process of AI due to lack of content knowledge, lack of infrastructure, physical structure of the classroom, and lack of materials. In addition, participants emphasized that if the existing concerns were eliminated, AI could be easily integrated into the preschool period. In addition, it was determined that most participants had problems in modeling and drawing a model related to AI.

Kuo, B.-C., & Chang, F. T. Y. (2025). **Development and application of a self-regulated learning questionnaire in the large-scale digital learning context**. *Education and Information Technologies*, *30*(12), 16463-16486. https://doi.org/10.1007/s10639-025-13438-3
In the modern era, students increasingly access digital tools like adaptive learning platforms to enhance self-regulated learning (SRL). This study developed and validated a Self-Regulated Learning Integrated Questionnaire (SRLIQ) tailored for offline and online learning environments, particularly in AI-driven platforms like the Taiwan Adaptive Learning Platform (TALP). The SRLIQ was designed to assess SRL abilities and explore its relationship with academic achievement and learning engagement in large-scale digital learning contexts. The study involved 66,647 participants from Grade 3 to Grade 8 across 21 cities in Taiwan. Data were collected in three stages (June 2022, December 2022, and June 2023), including questionnaire responses, TALP engagement metrics, and standardized assessment scores in Chinese, English, and Mathematics. Findings indicated good construct validity and alignment between the observed data and the theoretical model. Cross validity testing demonstrated the SRLIQ's generalizability across gender, grade level, and geographic region, but not across time stages. SRL scores significantly improved in Stage 3, likely due to the Digital Learning Enhancement Plan. Additionally, SRLIQ scores correlated with standardized assessments, affirming its effectiveness in linking SRL with academic performance. Students engaging consistently with TALP achieved higher SRLIQ scores, highlighting the importance of sustained digital engagement. These findings underscore SRLIQ's utility in diverse educational settings and its relevance to modern digital learning environments.

Lajnef, K. (2025). **How does accounting education shape the digitalization of the accounting profession? A cognitive mapping investigation**. *Quality & Quantity*, *59*(4), 3441-3460. https://doi.org/10.1007/s11135-025-02131-9

This study explores how accounting education influences students' readiness for the digitalization of the accounting profession, with a particular focus on Tunisian accounting students. A qualitative approach is employed, utilizing cognitive mapping techniques with a sample of 74 students. Through cognitive mapping, key cognitive structures related to factors such as faculty expertise in digital accounting, resource availability, and continuous professional development initiatives are identified. Faculty expertise, in this context, refers to instructors' proficiency with digital tools and their ability to incorporate these tools into their teaching. Resource availability pertains to the access students have to digital learning tools and development opportunities that enable engagement with modern accounting technologies. The findings indicate that faculty expertise and access to digital resources significantly contribute to students' readiness for digital accounting tasks, fostering skills that go beyond traditional accounting practices. A practical recommendation is to implement targeted faculty development programs and increase funding for digital tools, ensuring alignment between accounting curricula and industry standards. This study underscores the importance of embedding digital literacy into accounting education, offering insights for educational institutions and policymakers on preparing students for the evolving technological demands of the accounting profession.

Lampropoulos, G., & Chen, N.-S. (2025). **Assessing the educational impact of extended reality applications: Development and validation of a holistic evaluation tool**. *Education and Information Technologies*, *30*(11), 15231-15280. https://doi.org/10.1007/s10639-025-13383-1

This study aims to create and validate an evaluation tool that assesses the learning effectiveness of extended reality applications (e.g., augmented reality, virtual reality, mixed reality, and the metaverse). Six research questions were formulated to guide this study. The Extended Reality in Education (XREd) questionnaire consists of 50-items derived from 25 existing and validated questionnaires and surveys. The tool uses a 1–5 Likert scale and its items correspond to 15 factors, which are categorized into 5 dimensions. Both the factors and dimensions are supported by related theoretical aspects and background, and are grouped as follows: (1) System usability: Ease of use and Instructional clarity, (2) Learner's basic psychological needs: Enjoyment, Autonomy, Self-efficacy, and Social interaction, (3) Learner's learning state: Flow, Presence, and Immersion, (4) Learner's learning performance: Learning outcomes, Learning motivation, and Learning engagement, (5) Learner's learning perceptions: Perceived usefulness, Learning preferences alignment, and Behavioral intention. To validate the tool, descriptive statistics and reliability tests, validity tests, and factor analyses, Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modelling (SEM) were used. An extended reality application was developed and applied in higher education settings over the course of a semester. The experiment data was used to validate the created evaluation tool, which was then used to evaluate the effectiveness of the developed XR application and to answer the 6 research questions set to be explored. The results confirmed the validity of the XREd questionnaire and its effectiveness in evaluating extended reality applications. Additionally, its potential to be modularly integrated to evaluate non-extended reality learning applications was highlighted. Finally, the developed application was positively assessed by students, who regarded it as an effective learning tool that can support and enrich their learning experience and improve learning outcomes.

Lan, G., Feng, X., Du, S., Song, F., & Xiao, Q. (2025). **Integrating ethical knowledge in generative AI education: constructing the GenAI-TPACK framework for university teachers' professional development**. *Education and Information Technologies*, *30*(11), 15621-15644. https://doi.org/10.1007/s10639-025-13427-6
Despite the critical role teachers play in AI education, research on their understanding of generative AI tools remains limited, particularly concerning their ethical assessment knowledge. This study addresses the gap by proposing the Generative AI Technological Pedagogical Content Knowledge (GenAI-TPACK) framework, which incorporates ethical knowledge as an essential component of university teachers' professional development. Grounded in the Technological Pedagogical Content Knowledge (TPACK) model, we utilize structural equation modeling to investigate the interrelationships among Generative AI Technological Knowledge, pedagogical knowledge, and ethical assessment knowledge. Our findings indicate that university teachers' effective use of generative AI is contingent upon their technological knowledge and engagement with these tools. Furthermore, while technical knowledge supports evaluative decision-making, it is insufficient on its own for successful integration into teaching practices. Instead, a holistic approach that combines technological and pedagogical knowledge enhances teachers' capacities to utilize generative AI effectively. The study also reveals a positive correlation between ethical assessment knowledge and both pedagogical and content knowledge, contributing to a comprehensive understanding of the GenAI-TPACK framework. This research underscores the importance of integrating ethical considerations into AI education, offering valuable insights for the professional development of educators and the enhancement of teacher training programs.

Lasheb, M. A., Pons, O., Bekkouche, M., Lincker, E., Barbet, I., & Huron, C. (2025). **Extracting and Structuring Textbooks for Inclusive Education: A Computer Vision Approach**. *The 25th IEEE International Conference on Advanced Learning Technologies (ICALT 2025)*. Présenté à Changhua, Taiwan. Consulté à l'adresse https://hal.science/hal-05206586
Textbooks are essential learning tools for children in schools, and ensuring their accessibility is crucial for the inclusion of students with disabilities. However, manually adapting textbooks is a time-consuming process that fails to meet the growing needs. Our long term project aims to automate textbook adaptation, with this paper focusing on extraction and structuring-the first crucial step in the adaptation pipeline. By leveraging deep learning and computer vision, we efficiently extract and structure multimodal content, ensuring a wellorganized representation of textbook elements. This approach enhances automation efficiency, supports equitable education, and facilitates the development of intelligent tools for inclusive learning. Our system achieved 98% accuracy in detecting layout formats and 93% accuracy in identifying exercise boxes, and the detection of their elements was directly influenced by the amount of training data available for each element type.

Le, H., Shen, Y., Li, Z., Xia, M., Tang, L., Li, X., … Fan, Y. (2025). **Breaking human dominance: Investigating learners' preferences for learning feedback from generative AI and human tutors**. *British Journal of Educational Technology*, *56*(5), 1758-1783. https://doi.org/10.1111/bjet.13614
Understanding learners' preferences in educational settings is crucial for optimizing learning outcomes and experience. As artificial intelligence (AI) becomes increasingly integrated into educational contexts, it is crucial to understand learners' preferences between AI and human tutors to support their learning. While AI demonstrates growing

potential in education, the phenomenon of algorithm aversion, which is a tendency to favour human decision making over algorithmic solutions, requires further investigation. To explore this issue, an experiment involving 114 university students was conducted to measure learners' preferences for different feedback sources before and after exposure to one of four conditions: no feedback, human tutor feedback, ChatGPT feedback through a free-dialogue user interface, and AI-powered writing analytics tool feedback through a structured interface. Our results revealed a strong initial preference for human tutors. However, the post-task analysis showed an important nuance. While the general preference for human tutors persisted, learners' preference towards the free-dialogue interface (ChatGPT 4.0) of ChatGPT increased, whereas the structured AI interface (AI-powered writing analytics tool) reinforced the preference for human tutors. These findings offer theoretical and practical contributions by extending algorithm aversion theory to educational contexts and demonstrating that appropriate interaction design can mitigate this aversion. The success of free-dialogue interfaces suggests that overcoming algorithm aversion may depend more on creating natural, flexible interaction experiences than purely technical optimization. However, we must also consider that increased preference for AI tools, particularly those with more engaging interfaces, may potentially lead to over-reliance and metacognitive laziness among learners, highlighting the importance of balancing technological support with the development of independent learning skills. Practitioner notes What is already known about this topic? Algorithm aversion exists across various contexts where individuals tend to prefer human over algorithmic decision-making. The introduction of generative AI brings new possibilities for AI-supported learning. What this paper adds? In academic writing tasks, learners show strong initial preference for human tutors over Generative AI feedback. Strong initial preference for human tutors persists even after exposure to generative AI feedback. Different interaction designs lead to divergent preference patterns: Free-dialogue interface increases preference for AI feedback, structured interface reinforces preference for human tutors. Implications for practice and/or policy Algorithm aversion in educational contexts can be mitigated through appropriate interaction design, particularly through natural dialogue interfaces. Design AI educational tools with back-and-forth, conversational interfaces to reduce algorithm aversion.

Lee, S., Lee, Y., Park, S.-Y., & Ham, E. H. (2025). **Exploring the dynamics of self-regulated learning in online courses: trajectories of self-regulated learning and the role of basic psychological needs satisfaction across different achievement levels**. *Education and Information Technologies*, *30*(12), 16861-16891. https://doi.org/10.1007/s10639-025-13443-6

This study aimed to investigate the trajectories of students' self-regulated learning in an online course and the predictive role of students' satisfaction with basic psychological needs (autonomy, competence, relatedness) on these trajectories. Additionally, the potential variation in the relationship between basic psychological needs and self-regulated learning based on students' achievement levels was examined. The analysis of data revealed a significant increase in students' self-regulated learning scores throughout the three-month course. Data from 1,105 elementary and middle school students participating in an online learning program were collected over four 12-week periods. This study confirmed the increase in learners' self-regulated learning in an online learning environment over a 12-week period. The study found that autonomy, competence, and relatedness were related to the initial value of self-regulated learning but did not significantly influence the growth of self-regulated learning over the course.

The study also found that the relationship between basic psychological needs and self-regulated learning varied among different achievement groups. Autonomy and competence played a significant role in predicting the initial level of self-regulated learning in all groups, regardless of achievement level, whereas relatedness had the most substantial effect for the high-achieving group.

Leitão, R., Yao, S., & Guimarães, L. (2025). **An augmented reality board game to work ocean literacy dimensions**. *Education and Information Technologies*, *30*(13), 19245-19268. https://doi.org/10.1007/s10639-025-13519-3
Over the past decade, research has stressed the necessity of increasing ocean teaching in formal and informal education by addressing ocean literacy dimensions. Although board games have emerged as an affordable and accessible option for immersive learning experiences, limited empirical evidence demonstrates their effectiveness in enhancing students' understanding of ocean-related concepts. Board games can encourage face-to-face interactions among peers or teams by combining tangible materials with turn-taking modes and promote students' engagement with multiple aspects of ocean literacy. The present work aimed to develop an augmented reality (AR) game-based educational tool (The Blue Bounty) to inform about the ocean and explore how this could help improve engagement with different ocean dimensions. The development process followed a co-design approach with university students, based on the Design, Play and Experience (DPE) framework. The game was used in an intervention to assess its ability to address six relevant ocean literacy dimensions in a pre/post assessment design. The findings from the game activity show that the research tool has the potential to significantly increase various dimensions, including knowledge acquisition, awareness enhancement, communication skills, attitude formation, activism engagement, and behaviour change, more than a control traditional lecture. Each dimension is impacted differently, highlighting the multifaceted benefits of integrating these activities into formal and informal environments. Additionally, the results suggest that increasing knowledge may have a positive impact on awareness, communication, attitude, activism and the behaviour layer. Discussion includes implications for the development of more engaging environmental educational tools, including the design, implementation, and measurable outcomes.

Lepage, A., & Roy, N. (2025). **Étude de l'adoption de l'intelligence artificielle par des personnes enseignantes du postsecondaire au Québec en fonction de cinq types d'usages**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-13
Cette étude vise à expliquer l'adoption de cinq types d'usages de l'IA par les personnes enseignantes du postsecondaire : prédiction de la réussite, rétroaction, détection du plagiat, création de matériel et évaluation. Des personnes enseignantes du postsecondaire (n = 127) se sont prononcées sur les facteurs d'attitude, de performance perçue, de facilité d'utilisation et d'anxiété, de même que sur des facteurs de littératie de l'IA (technique, pédagogique et éthique). Des modèles d'équations structurelles ont été estimés pour expliquer l'intention d'utilisation. Il ressort des principaux résultats que des connaissances techniques sur l'IA sont associées à des attentes de performance plus faibles.

Li, C., & Lyu, B. (2025). **Investigating the motivational and knowledge affordances of conversational AI using induction, concretization and exemplification in math learning**.

British Journal of Educational Technology, *56*(5), 1814-1841. https://doi.org/10.1111/bjet.13612
A promising approach to support students' math learning effectively, automatically and at scale within existing learning environments is conversational artificial intelligence (ConvAI). Although previous studies have suggested ConvAI's potential to guide, facilitate and enhance learning, its effects on students' conceptual change and academic motivation—the latter a crucial moderator of conceptual change—in math education remain understudied. Our study expands understanding of how ConvAI can be used to support Algebra learning from a conceptual change perspective. Using a between-subjects, pre- and posttest design, we conducted an experimental study with 151 participants, with the experimental group accessing ConvAI developed with induction, concretization and exemplification teaching strategies. Results showed that participants in the ConvAI group exhibited higher mastery goal orientation and self-efficacy compared with the control group post-intervention. The frequency of visiting recommended learning resources by ConvAI significantly predicted participants' motivation changes, with increased visits correlating with higher motivation. Additionally, although there was no significant main effect on misconceptions between ConvAI and no-AI participants, significant interaction effects on misconceptions emerged between treatment conditions and student motivation. Our findings, revealed through open-sourced implementations, provide support and implications for educational practitioners and researchers to design and develop pedagogically meaningful ConvAI for math learning.

Li, D., & Xing, W. (2025). **A comparative study on sustainable development of online education platforms at home and abroad since the twenty-first century based on big data analysis**. *Education and Information Technologies*, *30*(11), 16023-16044. https://doi.org/10.1007/s10639-025-13400-3
The sustainable development of Internet education platforms has not been a research focus due to the continuous renewal of artificial intelligence, big data, and policies across different countries and regions. To address this gap, this paper utilizes bibliometric analysis and visualization tools to analyze the development of online education platforms in China and abroad based on CNKI and WOS databases. The study reveals that the development of online education platforms in China and abroad is divided into four stages: a stepwise upward trend and a rising trend abroad. The online platform for education research is disciplined and has rich achievements. Chinese research hotspots focus on technology model, use, and commercialization, while foreign studies concentrate on sustainability and user impact. Future research hotspots in China may include effectiveness, user experience, feedback, and willingness to pay. The study highlights the importance of understanding cultural, geographical, and policy influences on the sustainable development of Internet education platforms to inform future Research and development in the field.

Li, S.-Y., Ho, C.-Y., & Wu, S.-P. (2025). **The impact of thematic teaching on student learning outcomes in computer programming applications**. *Education and Information Technologies*, *30*(11), 15791-15815. https://doi.org/10.1007/s10639-025-13418-7
This study originates from the observation during teaching and student interactions that students in industry-academic cooperative programs have very limited time to dedicate to coursework. The target group for this research consists of third-year students in the Mechanical Engineering industry-academia collaborative training program, and sessions

are conducted in the shared computer lab, Room 312. All 40 students were informed of the study details and signed consent forms. This research was initiated based on observations from teaching sessions and internship evaluations, which revealed that these students face challenges such as heavy workloads, condensed class schedules, and limited familiarity with programming. With limited classroom time, designing content that captures students' attention and enhances learning efficiency is a primary objective of this study. This research introduces a topic-based teaching approach, which was pilot-tested in the 2021 academic year and fully implemented in the 2022 academic year. The topic-based approach comprises three stages: topic explanation and programming implementation, problem-based exercises with peer learning, and results presentation with in-depth discussion. After completing each topic, both qualitative and quantitative questionnaires are administered to facilitate rapid instructional feedback, thereby scientifically refining the teaching and learning process. The study findings show high effectiveness in quantitative metrics, with student evaluations consistently above 4 out of 5 and a gradual increase in satisfaction with the teaching team as topic difficulty rose (from 4.48 to 4.70). In qualitative feedback, students expressed strong agreement that the topic-based approach enhanced their understanding of programming applications and techniques, peer interactions deepened knowledge retention, and team presentations fostered greater engagement. Course evaluation scores improved from 4.03 to 4.49, and final grades increased significantly from 70.23 to 87.26 (with a 12.7% improvement in teaching effectiveness and a 24.2% increase in overall semester grades.). These results indicate that, compared to conventional teaching methods, the topic-based approach effectively ignites students' enthusiasm for learning and improves learning outcomes.

Li, X. (2025). **Cultural competence in technology-assisted language teaching: insights from higher education**. *Education and Information Technologies*, *30*(13), 18921-18953. https://doi.org/10.1007/s10639-025-13495-8
As global education evolves, the need for cultural competence training for English language instructors has become increasingly critical, especially in higher education institutions with diverse student populations. This study examines how cultural competence training impacts teaching methodologies, intercultural communication, and the creation of inclusive learning environments. A quantitative research approach was employed, gathering data from 450 participants using structured questionnaires, with 385 valid responses analyzed using SPSS. Advanced statistical techniques, such as Exploratory Factor Analysis (EFA) and Multivariate Analysis of Variance (MANOVA), were utilized to examine the connections between training and its outcomes. The findings reveal that cultural competence training significantly enhances teacher awareness of diverse student backgrounds, their ability to integrate cultural content into curricula, and their sensitivity to cross-cultural communication challenges. Additionally, teachers demonstrated improved adaptability and communication strategies when engaging with international students. By addressing gaps in prior research and offering actionable insights, this study highlights the importance of integrating cultural competence training into professional development programs to foster inclusive and equitable education in globalized academic settings. The findings offer concrete implications for higher education institutions, including refining teacher training curricula, enhancing cross-cultural engagement strategies, and promoting inclusive policies to support diverse student populations.

Li, Y., & Rahman, M. N. B. A. (2025). **Parental Involvement in Digital Learning During Elementary School Education: A Systematic Literature Review**. *European Journal of Education*, *60*(3), e70186. https://doi.org/10.1111/ejed.70186
Parental involvement has been recognised as a key factor in influencing children's educational outcomes, especially in the context of digital learning in primary education. The objective of this research was to systematically review the research on parental involvement in digital learning scenarios in primary education to understand the definition of parental involvement, theoretical frameworks and research findings in this field of study. Following the PRISMA guidelines, 30 research articles published in peer-reviewed journals from January 2014 to April 2025 were identified and reviewed from multiple databases. Findings reveal definitional inconsistency, limited use of theoretical frameworks and four key research domains: expanded parental roles (organising, monitoring, instructing), influencing factors (parent-related, child-related, external), growing focus on parents' emotional states and generally positive impacts on student outcomes. This review enhances comprehension of parental involvement in the digital learning context and offers insights for constructing a theoretical framework for parental involvement in this new context.

Liat, E., & Hayak, M. (2025). **The integration of digital games into teaching and learning—A unique constructivist framework**. *British Journal of Educational Technology*, *56*(5), 2202-2222. https://doi.org/10.1111/bjet.13555
In today's era, the ability to create and utilize digital games in the classroom is of great importance, for both teachers and students. Yet traditional teaching methods often lack the implementation of games in general, and of digital games in particular. This study presents a unique constructivist framework for creating and integrating digital-game generators in the classroom, following four consecutive year-long courses for preservice teachers at a college in Israel. Using design-based research, year-to-year improvements (iterations) to the course were introduced, achieved through analysis of in-class discussions, semi-structured interviews, participants' reflective diaries and the generated games. The participants were required to apply the constructivist framework to a study unit in their field of expertise, during their practical school-teaching experience. The findings in this study are based on the participants' teaching experience in secondary schools in three core subjects: English as a second language, mathematics and history. The developed consecutive framework comprises three core elements: the game, the pedagogical and didactic core, and the knowledge—all of which are important when integrating digital-game generators into the classroom. The course and framework addressed in this study could be applied in additional teacher-training programs, to increase digital-game generation and related skills in classrooms. Practitioner notes What is already known about this topic Creating and implementing digital games in the classroom has gained momentum in recent years. Early exposure of preservice teachers to digital games during the teaching training phase may increase their use in the educational field. The developing and integration of digital games in the classroom, based on the constructivist approach, allows students to create games using existing game generators, while expressing their insights and knowledge in a personal and creative manner. What this paper adds Introduces an innovative framework integrating educational game generation into teacher training, addressing key pedagogical and content knowledge components. Demonstrates the successful application of this framework across multiple disciplines (English, mathematics and history) in secondary education. Presents a longitudinal study showcasing the iterative development and

refinement of a game-based learning approach in preservice teacher education. Provides evidence-based insights into the effectiveness of incorporating digital game creation as a constructivist learning tool in teacher preparation programs. Implications for practice and/or policy The constructivist framework helps expose preservice teachers—and in early stages of their teacher training—to experimenting with different types of digital games and different methods for integrating them into their teaching. Such integration of digital games into their teaching may promote meaningful learning, with an emphasis on the development of important 21st-century skills. In light of the proposed model, the study recommends promoting the topic of digital games in teacher training, for the benefit of the preservice teachers' future students.

Lightfoot, S., Mander, S., & Doehler, S. (2025). **Can You Hear Me? Empowering From Afar: The Impact of Participating in Staff Recruitment on the Student Experience of HE Distance Learners**. *Higher Education Quarterly*, *79*(3), e70024. https://doi.org/10.1111/hequ.70024
This paper explores the impact of student participation in staff recruitment processes at a UK distance learning Higher Education Institution, examining its contribution to quality in teaching and learning. Drawing on Self-Determination Theory, the study investigates how students' involvement in high-level decision-making affects their sense of agency, wellbeing, and belonging. Using creative, arts-based methods, three distance students reflected on their experiences through visual representations and follow-up narrative interviews. Findings indicate that authentic student voice activities can enhance students' perceptions of educational quality, promote a sense of inclusion, and support emotional and academic wellbeing. Participants reported increased confidence, respect for the institution, and clarity of purpose in their studies. This research highlights the value of embedding student voice across institutional practices and proposes a more holistic, participatory approach to quality that reflects the realities of distance education and the diverse identities of students.

Listiaji, P., & Molnár, G. (2025). **Integrating computational thinking into teacher education: A systematic literature review**. *International Journal of Educational Research*, *133*, 102682. https://doi.org/10.1016/j.ijer.2025.102682
Integrating computational thinking (CT) into teacher education is essential for preparing future teachers in the 21st century. This systematic literature review selected 43 journal articles (2014–2024) using the PRISMA standard to examine the subject area, CT model, intervention, tools, and assessments. The results show that the literature (1) focuses on STEM subjects, with most researchers using (2) the CT model, including decomposition, pattern recognition, abstraction and algorithm thinking, (3) plugged activity, (4) visual programming, and (5) questionnaires and achievement tests as assessment tools. Further potential research includes studies on non-STEM subjects, CT model testing, unplugged interventions, non-programming tools, and assessment validity and reliability. This study provides important and evidence-based insights for researchers in teacher education and development so that they can design more effective teaching strategies in integrating CT into in-service and pre-service teacher education.

Liu, Jiawen, Shadiev, R., & Cao, M. (2025). **Effects of digital citizenship educational game on teenagers' learning achievement, motivation, cognitive load, and behavioral patterns**. *Education and Information Technologies*, *30*(11), 15817-15870. https://doi.org/10.1007/s10639-025-13399-7

Integrating digital games into learning about digital citizenship has garnered significant attention. While digital game-based learning has the potential to enhance learners' academic performance, engagement, and motivation, these games often focus on specific aspects of digital citizenship education and lack systematic design approaches. Furthermore, current game designs are predominantly influenced by behaviorist learning theories, which enhance learning through stimulus reinforcement. However, there remains a gap in providing learners with an autonomously constructive and actively engaging learning environment that fosters meaningful learning. This study, guided by social cognitive theory, designs and develops an educational game system for digital citizenship. It also explores the impact of this digital game on middle school students' digital citizenship learning achievements and their perceptions of learning motivation and cognitive load during the learning process. Additionally, lag sequential analysis is employed to identify differences in behavioral patterns between high-progress and low-progress groups in game-based learning. A total of 80 first-year middle school students participated in this study. The experimental group engaged in digital citizenship education through the digital game, while the control group learned through regular class-themed courses. The results indicate that gamified digital citizenship education positively influences students' learning achievements, reduces cognitive load, and benefits students with initially low learning motivation. Differences in behavioral patterns between high-progress and low-progress groups during game participation were observed. Based on these findings, the study offers several recommendations and measures for educators and researchers in this field.

Liu, Jurong, & Yang, J. (2025). **Translation and english language learning: A study on its effectiveness across different levels of proficiency**. *Education and Information Technologies*, *30*(13), 18539-18577. https://doi.org/10.1007/s10639-025-13494-9
This study investigates the effectiveness of translation-based learning in enhancing vocabulary retention, comprehension, and learner confidence across different proficiency levels among English language learners. While the use of translation in language learning has been debated, research on its impact at varying proficiency levels remains limited. This study aims to address this gap by exploring how translation influences vocabulary acquisition, reading comprehension, confidence, and recall speed. A mixed-methods approach was used, involving 289 participants from diverse educational settings. Quantitative data were collected from 270 learners through structured questionnaires, vocabulary assessments, and comprehension tests. Qualitative data were gathered from 30 participants through focus groups and semi-structured interviews. Data were collected in three phases—pre-intervention, intervention, and post-intervention—over a two-month period (March 1–April 30, 2024). The analysis of quantitative data was conducted using SPSS, while NVivo was used to analyze qualitative data. The findings revealed that translation-based learning significantly improved vocabulary retention and comprehension, with learners showing increased confidence and faster recall. These effects were most notable among beginner and intermediate learners, while advanced learners showed more limited improvements. The study highlights the potential of translation as an effective tool for language learning, particularly when tailored to learners' proficiency levels. By examining the impact of translation at different stages of language acquisition, the study provides valuable insights into how translation-based methods can be adapted to meet the specific needs of learners at various proficiency levels.

Liu, Y., Zhang, Z., & Wu, Y. (2025). **What drives Chinese university students' long-term use of GenAI? Evidence from the heuristic-systematic model**. *Education and Information Technologies*, *30*(11), 14967-15000. https://doi.org/10.1007/s10639-025-13403-0
The growing adoption of generative AI (GenAI) in education underscores the importance of identifying the factors that shape university students' intentions to sustain their use of this technology. Despite its growing adoption, limited research has investigated how the attributes of GenAI shape students' sustained usage intentions. Grounded in the Heuristic-Systematic Model and Means-End-Chain Theory, this study conducted an online survey of university students in mainland China through random sampling (time1, n = 823; time2, n = 712), explores how heuristic factors (anthropomorphism and likability) and systematic factors (perceived intelligence and AI compatibility) influence students' intention to continue using GenAI, with utilitarian and hedonic values serving as mediators. The findings indicate that anthropomorphism, likability, perceived intelligence, and AI compatibility have a positive impact on students' intention to continue using GenAI. Moreover, utilitarian and hedonic values serve as mediators, linking these attributes to behavioral intentions, highlighting the dual role of value perceptions in driving continued use. The study highlights the fear of AI as a negative moderating factor that weakens the direct effects of these attributes on intention, emphasizing the critical role of individual characteristics in shaping human-AI interactions. This study enhances the literature on human-AI interaction by combining heuristic and systematic cues with user value perceptions to clarify the mechanisms driving the adoption and continued use of GenAI. The findings offer theoretical and practical insights, emphasizing the need for thoughtful design of GenAI attributes to enhance its utility and user experience while addressing concerns related to fear of AI to promote long-term engagement.

Liu, Zebin, Zhang, X., Liu, W., Chen, W., Li, Y., & Zhou, Y. (2025). **Application and optimization of digital situated teaching in university finance courses from a constructivist perspective: An analysis based on machine learning algorithms**. *Education and Information Technologies*, *30*(13), 18059-18088. https://doi.org/10.1007/s10639-025-13496-7
The rapid advancement of digital technologies is prompting a necessary shift in traditional educational models, particularly in finance education. This study introduces the « Multi-Dimensional Situated Learning Model » (MD-SLM), which is rooted in constructivist theory and aims to enhance teaching strategies in university finance courses. The MD-SLM incorporates digital tools like simulation software and online learning platforms to create a dynamic and authentic learning environment that fosters active student engagement and the development of practical skills. The model is designed with a tiered structure of situational tasks—categorized as foundational, extended, and integrative—paired with a comprehensive teacher support system that helps educators transition from traditional teaching roles to facilitators of learning. To assess the model's effectiveness, machine learning algorithms, such as cluster analysis, decision tree analysis, and Gradient Boosting Machine (GBM), were used on a dataset of 514 students over three years. The results demonstrated significant improvements in student learning behaviors and outcomes. The study's findings highlight the MD-SLM's potential to revolutionize digital finance education by aligning with constructivist principles and providing customized learning experiences. The research concludes with recommendations for applying this model more broadly across various educational contexts, aiming to contribute to the ongoing digital transformation in higher education.

Liu, Zifeng, Xing, W., Jiao, X., Li, C., & Zhu, W. (2025). **What are the differences between student and ChatGPT-generated pseudocode? Detecting AI-generated pseudocode in high school programming using explainable machine learning**. *Education and Information Technologies*, *30*(11), 14853-14892. https://doi.org/10.1007/s10639-025-13385-z

The ability of large language models (LLMs) to generate code has raised concerns in computer science education, as students may use tools like ChatGPT for programming assignments. While much research has focused on higher education, especially for languages like Java and Python, little attention has been given to K-12 settings, particularly for pseudocode. This study seeks to bridge this gap by developing explainable machine learning models for detecting pseudocode plagiarism in online programming education. A comprehensive pseudocode dataset was constructed, comprising 7,838 pseudocode submissions from 2,578 high school students enrolled in an online programming foundations course from 2020 to 2023, along with 6,300 pseudocode samples generated by three versions of ChatGPT. An ensemble model (EM) was then proposed to detect AI-generated pseudocode and was compared with six other baseline models. SHapley Additive exPlanations were used to explain how these models differentiate AI-generated pseudocode from student submissions. The results show that students' submissions have higher similarity with GPT-3 than with the other two GPT models. The proposed model can achieve a high accuracy score of 98.97%. The differences between AI-generated pseudocode and student submissions lies in several aspects: AI-generated pseudocode often begins with more complex verbs and features shorter sentence lengths. It frequently includes clear numerical or word-based indicators of sequence and tends to incorporate more comments throughout the code. This research provides practical insights for online programming and contributes to developing educational technologies and methods that strengthen academic integrity in such courses.

Low, M. P., Wut, T. M., & Pok, W. F. (2025). **Artificial intelligence facilitators in higher education institutions: A student-centric exploration with comparative analysis in Asian countries**. *Education and Information Technologies*, *30*(13), 18485-18511. https://doi.org/10.1007/s10639-025-13513-9

The rapid pace of digital transformation and innovation has significantly driven the growth of generative Artificial Intelligence (AI). Over the past two years, AI has taken a prominent role due to its effectiveness and productivity thereby infiltrating all sectors, including the education sector. Despite growing interest in AI in education, most research focuses on technological aspects and educators' views, with limited exploration of students' attitudes toward AI adoption. The role of psychological factors, particularly fear, in influencing students' intentions to use AI in higher education remains underexamined, especially across cultures. This study employs the Tripartite Model of Attitudes and the Technology Acceptance Model to assess the intentions of Higher Education Institution (HEI) students regarding AI use, considering fear as a moderating factor in AI integration into education. Structural equation model was employed to assess the proposed research model's predictive capacity, and a comparison was drawn between two Asian countries to paint a bigger picture of AI utilization in Asia HEIs. The study found a positive relationship between students' attitudes towards AI and the usefulness and ease of communication of AI-F, which had a positive influence on their attitude towards AI-F and intention to adopt it. Meanwhile, the results reveal that fear has

no significant moderating impact on the attitude toward AI-F and intention to adopt it. These findings serve as valuable insights for HEIs on managing AI usage, exposing, and preparing students for AI usage in the future while recommending good practices for optimizing the learning process.

Lu, C., Zhang, S., Yu, X., & Wang, Q. (2025). **Computational thinking of elementary school students in social support systems: exploring the influence effects of teachers, family, and peers**. *Education and Information Technologies*, *30*(12), 17531-17555. https://doi.org/10.1007/s10639-025-13475-y
This study aims to investigate the role of social support—specifically from family, teachers, and peers—in enhancing computational thinking (CT) abilities among elementary school students. Grounded in social support theory, the scales related to teacher, parental, and peer support were adapted from the PSIA test. After ensuring their reliability and validity, multiple regression analysis and Shapley value decomposition methods were employed to assess survey data from 3,018 elementary school students in grades 3 to 6 across three provinces in central China (Hunan, Hubei, and Henan). The findings reveal that all three types of social support positively influence student's CT proficiency, with teacher's emotional support having the most significant impact, particularly on creativity, problem-solving, and collaboration. Family support also enhances CT skills across these dimensions, while peer support primarily affects collaborative skills. Notably, teacher's emotional support interacts positively with both family and peer support, while cognitive support from teachers complements peer support independently of family involvement. This study provides a social support framework for educators and policymakers to foster student's computational thinking, suggesting that strengthening emotional and cognitive support from teachers, along with encouraging family and peer involvement, can significantly improve student's CT skills. Limitations and directions for future research are discussed, with an emphasis on the need for longitudinal studies and exploration of diverse educational contexts.

Luik, P., & Požogina, K. (2025). **Unleashing Digital Transformation: How a Professional Development Program Can Lead to Change**. *European Journal of Education*, *60*(3), e70191. https://doi.org/10.1111/ejed.70191
Teachers' continuous professional development in the digital technology field is crucial, and different professional development programs are composed to meet this need. This paper gives an overview of one such program, named "Digital Accelerator", created in Estonia, and assesses whether it is effective in promoting teachers' use of digital technology and their beliefs towards it. A total of 59 participating teachers filled in pre- and post-questionnaires, and for data analysis, non-parametric tests were used. The results revealed that the use of digital technology in teaching and learning activities increased, and participating in educational technology mentoring was the most influential program activity. Also, it was evident that perceived ease of use and general attitudes towards digital technology had increased significantly. However, based on the results, we could conclude that giving the participating teachers in training too much power to choose the content is not the most useful approach.

Luo, G., Niu, C., Lu, L., Wu, L., & Huang, L. (2025). **Empirical study on the double-edged effects of generative artificial intelligence on team creativity among university students**. *Education and Information Technologies*, *30*(13), 18853-18878. https://doi.org/10.1007/s10639-025-13527-3

University students are increasingly using generative artificial intelligence (AI) tools in creative tasks. Drawing from the literature on AI–human interaction and team creativity, the present study developed a moderated mediating model regarding the effects of generative AI on team creativity. To validate the developed model, a questionnaire survey was conducted among 308 students from 66 collaborative groups, and the collected questionnaire data were analyzed through partial least squares structural equation modeling (PLS–SEM). The results of this study indicate that the perceived intelligence of generative AI can indirectly promote team creativity through collective efficacy and suppress team creativity through task conflict. Furthermore, team trust strengthens the relationship between the perceived intelligence of generative AI and collective efficacy such that it also strengthens the indirect relationship between the perceived intelligence of generative AI and team creativity through collective efficacy. The results of this study have crucial theoretical implications as well as vital practical implications for designers of educational generative AI tools.

Luo, L., Hu, J., Zheng, Y., & Li, C. (2025). **Human vs. AI: Does AI learning assistant enhance students' innovation behavior?** *Education and Information Technologies*, *30*(12), 17483-17530. https://doi.org/10.1007/s10639-025-13474-z
Students are increasingly utilizing AI educational tools in their daily learning, complementing human instructors. Yet, little is known about how and when learning assistant type (Human vs. AI) influences students' innovation behavior. To better understand these ambiguities, based on self-determination theory and organizational climate theory, the current study constructs a dual pathway model and conducts three online experimental studies to explore the mixed effects of learning assistant type on students' innovation behavior. Study 1 provides sufficient evidence that AI (vs. Human) learning assistants will both enhance students' perceived autonomy, thereby promoting their innovation behavior (autonomous pathway), and increase students' self-esteem threat, thereby inhibiting their innovation behavior (competent pathway). Study 2 shows that high organizational readiness of the college will strengthen the autonomous pathway and buffer the competent pathway. Study 3 further demonstrates that the anthropomorphic design of AI learning assistants is beneficial for enhancing students' innovation behavior through increased perceived autonomy and decreased self-esteem threat. These findings deepen our understanding of the differences of students' perceptions and responses towards human and AI learning assistants, and they provide valuable practical implications for the promotion of AI learning assistants.

Luo, M., Hu, X., & Zhong, C. (2025). **The collaboration of AI and teacher in feedback provision and its impact on EFL learner's argumentative writing**. *Education and Information Technologies*, *30*(12), 17695-17715. https://doi.org/10.1007/s10639-025-13488-7
With the rapid development of artificial intelligence (AI), a new educational model where AI and teachers work together to improve learning outcomes has emerged. Although previous research has focused on comparing the effects of AI and teacher feedback, the division of labor between them has received little attention. Focusing on enhancing learners' English argumentative writing, this paper examines the collaboration of AI and teacher in feedback provision and its impact on learners' writing. Twenty-eight tenth-grade students participated in the study, using feedback from both their teachers and the AI tool, DeepL Write, to revise essays. The study compared the effects of AI-only and teacher + AI hybrid feedback using Coh-Metrix to analyze the writing quality across

three drafts: the original (draft 1), the AI-assisted revision (draft 2), and the teacher-assisted revision on draft 2 (draft 3). The results revealed that the AI-only feedback was effective in lexical and grammatical aspects but had weaknesses in improving content selection, coherence and cohesion, which could be mitigated through the integrated use of teacher and AI feedback. Based on the findings, we propose a partially automated hybrid approach that allows AI writing tool to execute feedback provision at lower levels, while teachers focus on offering insights at higher levels of writing. The findings of this research will contribute to a better understanding of the mechanism of teacher and AI cooperation in feedback provision. Future research needs to explore students' learning autonomy and assess the long-term impact of AI and teacher feedback integration in writing development.

Mariyam B., H., & Karthika, V. K. (2025). **AI-enabled networked learning: A posthuman connectivist approach in an English for specific purposes classroom**. *Education and Information Technologies*, *30*(13), 18181-18211. https://doi.org/10.1007/s10639-025-13497-6

This study investigates the efficacy of artificial intelligence in facilitating networked learning that aids educators in creating inclusive and academically responsible learning environments in Indian English for Specific Purposes (ESP) classrooms. Designed as a qualitative case study, the intervention involves twenty participants from an engineering institute in India, who engaged with AI and chatbots in pairs to learn and build on their content knowledge on sustainable practices in engineering. The theoretical foundation for the study is grounded in Vygotsky's Zone of Proximal Development (ZPD) model and the theory of Connectivism, both of which were utilised for an in-depth data analysis. This exploration posits that the process of learning involves connecting various information sources and the ability to make connections between and across discourses, concepts, fields and experiences. Therefore, the non-linearity in learning involving human, non-human and technological resources is analysed through the connectivism theory (Siemens, 2005a, b & Downes, 2005a, b). The findings of the study discuss the pedagogical implications of incorporating AI and chatbots among tertiary-level learners and examine the ethical and social consequences of accommodating them in the learning assemblage. The results of the study will also enable educators to formulate strategies to include AI in teaching and learning methods through the affordances of connectivism.

Maryani, I., Karimi, A., & Fathi, K. (2025). **Museums as a Valuable Platform for Teaching History: A Scientometric Review**. *European Journal of Education*, *60*(3), e70146. https://doi.org/10.1111/ejed.70146

This research aims to analyse research trends on the theme of teaching about cultural heritage in museums from the aspects of publications, citations, profiled authors, influential journals, authors' keywords co-occurrence and co-authors visualisation networks. This is a scientometric study in the field of teaching about cultural heritage museums. This study provides a systematic and quantitative, data-based approach. A total of 301 publications from journal articles and conference proceedings were taken from the Scopus database and analysed in terms of the number of publications per year, citation overview, research productivity, keyword accuracy and co-authorship. R-package, VOSviewer and Excel software were used to analyse and visualise research trends. This research contributes to the availability of important information about research publication trends in museums and history teaching. The productivity of

publication has increased in the last decade. The most productive country is Spain, followed by Turkey. The most relevant word is e-learning. The themes with the most potential to be developed in future research are digital libraries, information technology, semantics, archaeology and educational development. Collaboration between authors is still quite low, so these themes provide great opportunities for researchers in the field of history teaching to collaborate.

Máté, D., Kiss, J. T., & Csernoch, M. (2025). **Cognitive biases in user experience and spreadsheet programming**. *Education and Information Technologies*, *30*(11), 14821-14851. https://doi.org/10.1007/s10639-025-13392-0
The impact of cognitive biases, particularly biased self-assessment, on learning outcomes and decision-making in higher education is of great significance. This study delves into the confluence of cognitive biases and user experience in spreadsheet programming as a crucial IT skill across various academic disciplines. Through a quantitative analysis, we investigate whether structured learning in spreadsheet programming can counteract self-assessment biases among higher education students. Specifically, our focus is on scrutinizing the accuracy of self-assessment in Excel proficiency among professional STEM students at the University of Debrecen, Hungary, by comparing traditional written and digital assessments. Our findings reveal that while high-achieving students tend to exhibit more accurate self-assessments, many students have a pervasive tendency to overestimate their spreadsheet competencies. These results emphasize the necessity for educational strategies that acknowledge cognitive biases in self-assessment, with far-reaching implications for curriculum design and lean management in higher education, by integrating evidence-based approaches to enhance digital competencies. This study makes a valuable contribution to the broader dialogue on improving learning outcomes and user experience in spreadsheet programming. Additionally, the research provides valuable insights for educators and policymakers, advocating for pedagogical adjustments that can assist students in better evaluating their skills and knowledge, thereby promoting more precise self-assessment practices.

Matthews, S., Nicholas, M., Kervin, L., Paatsch, L., & Wyeth, P. (2025). **Computational thinking tools for early years education: a design study**. *Education and Information Technologies*, *30*(12), 17225-17262. https://doi.org/10.1007/s10639-025-13468-x
Computational Thinking (CT) is recognised as an essential foundational skill that enhances problem-solving abilities and is a crucial learning area for effective engagement in an increasingly digital society. This paper highlights the significance of screen-less tangible tools in promoting young children's exploration and open-ended play with technology and their exposure to CT, which adults can further support. It presents a design-led investigation involving 16 children (approximately 18 to 36 months old) and their caregivers, examining their interactions with a novel digital technology probe, 'Embeddables.' We aimed to explore how new types of interactions in CT tools can be developed to embody CT experiences in diverse ways. The Embeddable probes are multi-modal plush tools that respond when proximally to each other. In our study, we introduced Embeddables at an Australian children's museum to observe how young children engaged with them. Our analysis highlights the features of the CT technology probes that foster new opportunities for social and open-ended play, paving the way for digitally enhanced experiences that embody Computational Thinking and related skills. Our discussion revolves around the potential for CT with young children in playful environments, focusing on how the design features of tools facilitate this process.

Mavrou, K., Symeonidou, S., & Tsakiri, M. (2025). **Once inclusive always inclusive (?): experiences of Cypriot teachers and parents of children with disabilities on the use of technology and collaboration before and during the Covid-19 pandemic**. *International Journal of Inclusive Education*, *29*(11), 1970-1986. https://doi.org/10.1080/13603116.2024.2326615
In this paper teachers and parents of children with disabilities in primary education share their perspectives on instructional practices that support inclusive education. The paper explores participants' views on their own teaching practices before the Covid-19 pandemic in comparison to what they employed during the transition to emergency remote online education. The study involved 17 mainstream and special teachers from public schools in Cyprus, as well as 10 parents of children with disabilities, including all children with an official assessment of children with disabilities and special educational needs, attending primary mainstream schools. A thematic qualitative analysis was used to identify the type of pre-existing practices in the design and delivery of the learning process, including the use of technology, and how these were adapted during remote education. The findings highlight the importance of accessible learning materials, mainstream and assistive technology, communication, collaboration and co-teaching. The discussion emphasises the significance of readiness in terms of resources, competencies and relationships for inclusive education during emergency situations. In conclusion, being prepared to use technology for inclusion and to collaborate with colleagues and families is crucial in being inclusive even during challenging times.

Mayer, R. E. (2025). **How Instructional Features Affect Learning Processes Leading to Learning Outcomes**. *Educational Psychology Review*, *37*(3), 74. https://doi.org/10.1007/s10648-025-10058-8
This paper is a commentary on Eitel, Krebs, and Schöne (2025), examining how the FoRe-Squares model of technology-augmented learning shares commonalities with and offers extensions of the Cognitive Theory of Multimedia Learning.

Meirmanova, N. (2025). **Analyse comparative entre la génération automatique de questionnaires à choix multiples par ChatGPT et le corps enseignant pour l'évaluation de l'apprentissage**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-03
Cette étude, menée auprès de personnes apprenantes de l'Université, examine l'intégration de ChatGPT-4 dans la création de questionnaires à choix multiples (QCM). Nous comparons les QCM générés par l'outil d'intelligence artificielle (IA) à ceux conçus par des enseignantes et nous analysons la qualité des distracteurs ainsi que les indices de difficulté. L'étude révèle que les QCM générés par l'IA obtiennent des taux de réussite élevés, mais présentent des distracteurs moins efficaces, limitant leur capacité à évaluer des compétences de réflexion analytique. Cette recherche souligne l'importance de l'intervention humaine pour garantir des QCM de qualité, tout en reconnaissant le potentiel de l'IA comme outil complémentaire.

Mellati, M., & Valizadeh, M. (2025). **Exploring the emotional landscape: How graduate students' views on social networks influence their engagement in tech-enhanced learning environments**. *Education and Information Technologies*, *30*(12), 16269-16290. https://doi.org/10.1007/s10639-025-13613-6

This research investigates how tertiary students' views on social networks for learning purposes relate to their emotional reactions and their level of academic involvement in technology-supported learning environments. A total of 890 Iranian EFL (English as a Foreign Language) students from five provinces (Esfahan, Tehran, Markazi, Shiraz, Khorasan Razavi, and Tabriz) were invited to participate, yielding 521 valid responses. Three instruments were employed: a Social Media Usage and Perceptions Questionnaire, an Academic Engagement Questionnaire, and a Learners' Emotion Questionnaire. The SEM analysis was performed using SPSS version 27 and AMOS version 24; incorporated various techniques, including correlation, regression, and factor analysis. The findings indicate a positive relationship between students' favorable perceptions of social networks and their positive emotions, which significantly contribute to higher academic engagement in tech-enhanced learning environments. Conversely, the study found that negative perceptions of social networks are associated with negative emotions, which diminish students' academic engagement. These results highlight the dual role of social networks in shaping both emotional experiences and learning outcomes in modern educational settings.

Metreveli, A., Chen, X., Hedman, A., & Sergeeva, A. (2025). **"Who will be left behind?": A Swedish case of learning AI in vocational education**. *International Journal of Educational Research*, *133*, 102697. https://doi.org/10.1016/j.ijer.2025.102697
Increasing numbers of job roles emphasise skills related to Artificial Intelligence (AI). Alongside this trend, AI education has been incorporated into curricula at all levels, from K-12 to higher education. However, how to teach AI knowledge and transfer this knowledge into practice, especially to vocational students, remains under-investigated. To address this research gap, we first examined the goals and components of an AI curriculum that has been running for more than three years in Sweden. Then, we interviewed fourteen vocational students from different cohorts within the curriculum about their learning experiences. We found that the students expected more personalised learning and guidance from dedicated instructors, and a better curriculum structure. Further to this, many students wanted to learn more practical skills; it also became clear that technical training, sustainability, and reflection opportunities were given surprisingly little consideration. Building on the results of this case study, we provide recommendations for the future integration of AI into vocational education.

Michelot, F., & Lepage, A. (2025). **Apprivoiser l'IA en enseignement postsecondaire : perspectives croisées des apprenants et apprenantes et du personnel enseignant au Nouveau-Brunswick**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-12
Cette étude explore les perceptions et les pratiques liées à l'intelligence artificielle générative (IAg) dans l'enseignement postsecondaire au Nouveau-Brunswick (Canada). Basée sur une approche mixte, elle analyse les réponses de 281 participantes et participants issus de deux établissements d'enseignement. Les résultats montrent que l'adoption de l'IAg varie selon les profils, influençant les perceptions de son utilité et de ses implications éthiques. Tandis que les étudiants et étudiantes perçoivent l'IA comme un outil pédagogique, les enseignants et enseignantes expriment des préoccupations sur son impact. Ces divergences soulignent la nécessité d'une formation systématique pour développer une littératie de l'IA adaptée aux besoins du 21e siècle.

Miladi, F., Psyché, V., Diattara, A., EL Mawas, N., & Lemire, D. (2025). **Conception et évaluation d'un agent conversationnel enrichi par la génération augmentée par récupération : effet sur l'acquisition des connaissances des personnes apprenantes, l'utilisabilité perçue et l'expérience d'interaction**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-08
L'intelligence artificielle (IA) a considérablement évolué ces dernières années, notamment avec l'apparition des grands modèles de langage (LLM), tels que les modèles de la famille des transformeurs génératifs préentraînés (generative pre-trained transformer [GPT]). Ces modèles, capables de générer du texte fluide et contextuel, montrent un potentiel prometteur pour transformer divers secteurs, y compris l'éducation. Cependant, leur application en contexte éducatif présente certaines limites, notamment les « hallucinations », ou génération d'informations incorrectes, qui peuvent nuire à l'expérience d'apprentissage des personnes apprenantes. Pour atténuer ces limitations, la génération augmentée par récupération (RAG) a été intégrée aux modèles de langage. Cette approche associe les capacités des LLM à une récupération d'informations issues d'une base de connaissances préconstruite, alimentée par des documents appropriés, afin d'améliorer la précision, la pertinence et la fiabilité des réponses générées. Toutefois, l'application des modèles de langage enrichis par la RAG dans des contextes éducatifs, notamment les MOOC, demeure peu étudiée, en particulier quant à leur influence sur l'acquisition des connaissances et l'expérience d'interaction des personnes apprenantes. Nous avons conçu et développé un agent conversationnel, alimenté par GPT-4 et enrichi par la RAG, offrant un soutien en temps réel et contextuellement pertinent aux personnes apprenantes dans le cadre d'un MOOC. Cet agent est capable d'accompagner les personnes apprenantes dans la clarification de concepts complexes tout en les guidant tout au long de leur parcours d'apprentissage. Notre agent conversationnel a été évalué auprès de 25 personnes apprenantes inscrites à un MOOC. L'analyse des résultats a révélé une amélioration significative de l'acquisition des connaissances dans le groupe expérimental par rapport au groupe contrôle. De plus, l'agent conversationnel a obtenu un score élevé sur l'échelle d'utilisabilité du système (SUS), indiquant une perception positive de son utilisabilité. Les entretiens semi-structurés ont mis en évidence une expérience d'interaction globalement favorable avec l'agent. Ces résultats soulignent le potentiel des agents conversationnels dotés d'IA générative et enrichis par la RAG pour améliorer l'apprentissage dans les environnements d'apprentissage en ligne, y compris les MOOC. Ils ouvrent également la voie à des recherches futures sur leur rôle en tant que compagnons d'apprentissage.

Min, T., Lee, B., & Jho, H. (2025). **Integrating generative artificial intelligence in the design of scientific inquiry for middle school students**. *Education and Information Technologies*, *30*(11), 15329-15360. https://doi.org/10.1007/s10639-025-13410-1
This study aims at exploring the role of generative artificial intelligence (AI) in scientific inquiry and giving some implications for teaching scientific inquiry by examining the interactions between secondary students and AI during the design of open-ended physics experiments. A generative AI assistant was developed to support this process and a total of seven students were encouraged to use AI across 17 sessions. Thus, the researchers collected and analyzed conversations between the participants and AI, interview with the participants, and their reports. The results show that students' requests to the AI were identified with five categories: variable setting, experimental materials, procedure, analysis/results, and knowledge. As well, their queries were divided into

information retrieval and request of feedback in terms of the purpose of request. The interaction frequencies and patterns with AI were influenced by the familiarity of the given topic and their perceptions about AI. Thus, this study gave some implications how AI can be used to enhance students' abilities relevant to scientific inquiry.

Mocquet, B., Moutte, F., Mclellan, S., & Vivier Leloire, E. (2025). **How are university CIOs trained in 2025? The French Touch**. *EUNIS Annual Congress*. Présenté à Belfast (Northern Ireland), Ireland. Consulté à l'adresse https://hal.science/hal-05172775
In the ever-changing landscape of higher education, the role of Chief Information Officers (CIOs) in universities has undergone a profound transformation. As universities rely more on digital technologies to innovate and improve teaching, learning and administrative processes, university CIOs' responsibilities have expanded significantly. This presentation explores the French approach to training university CIOs between 2018 and 2025, highlighting the collaborative framework developed to enhance their managerial skills and strategic capabilities in a decentralized system where institutions manage their digital strategies independently.

Mpungose, C. B. (2025). **E-learning platforms at ODeL institutions of higher education: creating a real-world learning**. *Education and Information Technologies*, *30*(12), 17207-17223. https://doi.org/10.1007/s10639-025-13447-2
Students are destined by South African Open Distance and e-Learning (ODeL) institutions of higher education to use formal e-learning platforms for learning while neglecting the use of informal e-learning platforms. This creates challenges during the learning process since students are struggling to use formal e-learning platforms owing to the digital divide, while they are familiar with and good at using informal e-learning platforms. Consequently, this qualitative case study proposes alternatives and the possible use of non-formal e-learning by exploring students' reflections on using e-learning platforms at an ODeL university. Twenty-one postgraduate students doing B.Ed. Honours modules were purposively and conveniently sampled, and the data generated from semi-structured interviews, focus group discussions, and emailed reflective activities were thematically coded to produce three themes. The theoretical framework of connectivism was used to direct the study and make sense of the data. The findings revealed that a non-formal e-learning platform for self-regulated learning, which has been neglected in the past, can play a fundamental role in improving learning at ODeL higher education institutions. Therefore, this study argues for a move to a non-formal e-learning platform that blends formal and informal e-learning platforms to create real-world learning for ODeL universities for sustainable curriculum delivery.

Mushtaq, N., Nazeer, N., Fayaz, I., & Gulzar, F. (2025). **Next-Gen Learning: Gamifications impact on higher education**. *Education and Information Technologies*, *30*(11), 15691-15717. https://doi.org/10.1007/s10639-025-13431-w
This study aims to provide a comprehensive bibliometric analysis of gamification research in higher education from 2015-2024, highlighting key trends, influential contributors, and emerging themes. It seeks to address gaps in understanding the intellectual structure, global collaboration networks, and integration of advanced technologies in gamified education. A bibliometric approach was employed using data from 310 peer-reviewed publications indexed in the Web of Science database from 2015 to 2024. The analysis, was conducted using Biblioshiny, that involved evaluating publication trends, citation patterns, co-citation networks, keyword co-occurrence, and thematic clusters to

uncover insights into the evolution and impact of gamification research. The findings reveal a significant growth in gamification research, with an annual increase of 20.61% in scholarly output. Prominent themes include motivation, engagement, and the integration of gamification with digital platforms and advanced technologies such as artificial intelligence. Influential contributors, key journals, and global collaboration patterns are identified, with regions like Europe and North America emerging as major hubs. Emerging areas, such as gamification's role in hybrid learning and its application in resource-constrained environments, underscore its adaptability and potential for innovation. This study is one of the few comprehensive bibliometric analyses of gamification in higher education, offering a systematic understanding of the field's development. By addressing gaps in thematic exploration, global collaboration, and technological integration, it provides valuable insights for researchers, educators, and policymakers to advance the application of gamification in diverse educational contexts.

Naffi, N., & Montufar, C. S. (2025). **Autoformation en outils d'intelligence artificielle générative : un levier pour guider et optimiser la conception pédagogique**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-05

Cet article présente un retour sur une expérimentation d'autoformation guidée à l'intelligence artificielle générative (IAg) menée dans deux cours de cycles supérieurs du programme de technologie éducative à l'Université Laval, impliquant 45 professionnelles et professionnels de l'éducation en formation. L'expérimentation visait à explorer l'appropriation progressive de l'IAg par des personnes conceptrices pédagogiques en activité, en combinant exploration autonome et accompagnement structuré. L'analyse met en évidence une courbe d'apprentissage marquée par trois phases : une curiosité initiale, suivie d'un ébranlement de la confiance en l'expertise humaine, puis une réaffirmation du rôle des personnes actrices de conception pédagogique et d'enseignement grâce à une réflexion collective. Si l'enthousiasme face aux capacités de l'IAg a dominé les premières interactions, plusieurs étudiantes et étudiants ont rapidement ressenti un sentiment de dévalorisation, remettant en question leur propre expertise. Cependant, une discussion en classe animée par l'enseignante a joué un rôle clé dans la reconstruction d'une posture professionnelle solide, en mettant en lumière la complémentarité entre l'intelligence artificielle et l'intelligence humaine. L'accompagnement pédagogique structuré a permis aux personnes étudiantes de dépasser l'appréhension initiale et de repositionner leur valeur ajoutée dans un environnement où l'IA devient un levier d'innovation et non un substitut aux compétences humaines. Ce retour d'expérience met en évidence l'importance d'une autoformation encadrée, où l'exploration individuelle est soutenue par un cadre pédagogique structurant, favorisant la réflexion critique et la contextualisation des transformations professionnelles induites par l'IA. Les recommandations issues de cette expérimentation s'articulent autour de deux axes principaux : 1)les stratégies à adopter dans l'enseignement supérieur pour une intégration réfléchie et éthique de l'IAg; 2) l'évolution du rôle des personnes actrices de conception pédagogique et d'enseignement, qui doivent se définir non plus comme simples productrices de contenu, mais comme architectes d'environnements d'apprentissage augmentés par l'IA.

Nascimento, L., Correia, M. F., & Califf, C. B. (2025). **Techno-eustress under remote work: a longitudinal study in higher education teachers**. *Education and Information Technologies*, *30*(12), 16633-16670. https://doi.org/10.1007/s10639-025-13459-y
Technology has transformed the work practices of higher education teachers (HETs), leading to stress associated with using such technology, known as technostress. Technostress in the higher education context has predominantly been framed in a negative light, assuming that harmful techno-stressors lead to adverse outcomes. Moreover, most technostress research in higher education has taken a cross-sectional approach. Contemporary research, however, frames technostress as a holistic process that includes both negative and positive aspects: the negative side, techno-distress, and the positive side, techno-eustress. The process viewpoint invites investigations on the positive side of technostress as well as those that capture its temporal, dynamic nature. This study investigates how techno-eustress experienced by HETs evolves longitudinally. Using the holistic technostress model as our guiding lens, we investigate how three techno-stressors (usefulness, reliability, and complexity), two coping mechanisms (synergic literacy, technical support), and three individual traits (coping flexibility, IT mindfulness, and age) impact HETs' positive psychological responses, and, in turn, two workplace outcomes (job satisfaction and work performance) over time. A two-wave longitudinal paired survey design was employed to survey 712 HETs during two distinct periods of the COVID-19 pandemic. Results indicate that usefulness leads to a positive psychological response over time; IT mindfulness, coping flexibility, and synergic literacy influence a positive psychological response over time; and a positive psychological response positively impacts job satisfaction and work performance over time. The findings offer several theoretical contributions and can help policymakers, school districts, and administrators develop strategies to support HETs' psychological well-being, job satisfaction, and productivity.

Ndiaye, Y. (2025). **Exploring AI personas and empathy strategies to foster design outcomes**. *7ème Colloque international du RAIFFET du 5 au 8 mai 2025 à l'IPNETP d'ABIDJAN en CÔTE d'IVOIRE*. Présenté à ABIDJAN, Côte d'Ivoire. Consulté à l'adresse https://hal.science/hal-05108751
Empathy, defined as the ability to understand and internalize the emotions and perspectives of others, constitutes a fundamental aspect of human behavior. It is of particular significance for engineers and designers, especially when investigating users' needs. There is an increasing research agenda on empathy within engineering and design education, with methodologies such as personas, perspective-taking strategies being implemented to aid students in reflecting and emulating customer needs. Traditional techniques to enhance empathy involve prompting designers to: interact directly with the user, collect data about the user, and rely on the designer's own experiential knowledge. With advancements in technology, artificial intelligence (AI) is viewed as a potential tool to augment this process. This is especially pertinent in the African context, which has a strong cultural tradition, and where a digital gap is often noticed, and including that educational curricula do not necessarily integrate such innovative tools to leverage empathic considerations. This paper presents and discuss preliminary outcomes from students' ideation in mechanical design within the Senegalese context (West Africa). A controlled trial is conducted involving 18 students divided into 3 teams, all investigating the same design challenge. Three distinct strategies or roles were established: (a) a role-playing strategy supported by two customized AI chatbots. This role is juxtaposed with two conventional techniques to enhance empathy,

namely, (b) direct interaction with a potential user, and (c) reliance on the designer's personal experiences. Students in (b) and (c) transitioned roles to assume the AI role following their hand drawing ideation, while students in (a) were deprived of AI. This is to provide learners with equal opportunity to engage with AI. Students were asked to follow a four-phases process of empathizing. Following this process, the ideation and solution modeling, they were invited to discuss their results and reflect on the task during a team meeting. It was observed that the empathy experience was deemed particularly significant by all students. Participants who engaged in direct interaction with users developed the most advanced solutions, effectively addressing the design requirements. Incorporating AI to augment the empathy experience and design outcomes was regarded as an "absolute performance" and enhanced student motivation, teamwork, and leadership capabilities. It also cultivated an appetence to engage in additional similar projects. Nonetheless, the integration of novel designs into the CAD solution model presented a challenge for students, who ultimately proposed the association of empathy strategies to enhance creativity.

Neshaei, S. P., Mejia-Domenzain, P., Davis, R. L., & Käser, T. (2025). **Metacognition meets AI: Empowering reflective writing with large language models**. *British Journal of Educational Technology*, *56*(5), 1864-1896. https://doi.org/10.1111/bjet.13601
Reflective writing is known as a useful method in learning sciences to improve the metacognitive skills of students. However, students struggle to structure their reflections properly, limiting the possible learning gains. Previous works in educational technologies literature have explored the paradigms of learning from worked and modelling examples, but (a) their application to the domain of reflective writing is rare, (b) such methods might not scale properly to large-scale classrooms, and (c) they do not necessarily take the learning needs of each student into account. In this work, we suggest two approaches of integrating AI-enabled support in digital systems designed around learning from worked and modelling examples paradigms, to provide personalized learning and feedback to students using large language models (LLMs). We evaluate Reflectium, our reflective writing assistant, show benefits of integrating AI support into the learning from examples modalities and compare the perception of the users and their interaction behaviour when using each version of our tool. Our work sheds light on the applicability of generative LLMs to different types of providing support using the learning from examples paradigm, in the domain of reflective writing. Practitioner notes What is already known about this topic Reflective writing fosters metacognitive skills and improves learning gains and personal growth. The learning from worked and modelling examples paradigms is effective for skill acquisition and applying the acquired knowledge. Existing reflective writing assistants usually lack dynamic, AI-driven feedback or interactivity, limiting personalization and adaptability to each user's own needs in the learning process. What this paper adds It introduces Reflectium, an AI-enabled reflective writing assistant, integrating intelligent and interactive writing support for both the learning from worked and modelling examples paradigms. It demonstrates the use of a fine-tuned large language model (LLM) for providing feedback in the learning from worked examples version, and an LLM-powered conversational agent simulating instructor interactions for the learning from modelling examples version. It reports findings from a user study comparing the positive impact of artificial intelligence (AI) support on learners' performance, interaction behaviour and learning experience. Implications for practice and/or policy Digital tutoring systems for teaching reflective writing using the learning from worked examples paradigm should incorporate adaptive AI feedback to

enhance learning gains. Conversational agents simulating peers/instructors and powered by LLMs can provide scalable, interactive support for learning from modelling examples, notably in large-scale educational settings. Reflective writing tools should be evaluated for their impact on different aspects of the learning process, such as task performance, interaction behaviour and user experience, to guide future improvements. Educators and policymakers should consider the integration of AI-driven reflective writing tools into teaching curricula to enhance reflective practices and metacognitive skill development.

Nguyen, A., Huynh, L., Dang, B., Pohjolainen, S., Mattila, J., Paajala, I. J., … Karppinen, P. (2025). **Conceptualizing and enhancing metaverse literacy for education**. *Education and Information Technologies*, *30*(12), 17133-17153. https://doi.org/10.1007/s10639-025-13486-9

The metaverse has gained considerable attention and enormous investments in recent years and is increasingly recognized as a critical domain for future interactions and communications. Despite its growing importance, there is a notable lack of research on metaverse literacy, especially in education and training. This study aims to conceptualize "metaverse literacy for education" by defining its core components and proposing a framework for its evaluation. Furthermore, we report a case study leveraging an experiential learning approach to explore how exposure to various digital platforms - Virtual Reality (VR) headsets, mobile phones, and personal computers (PC) - influences metaverse literacy and perceptions regarding its adoption. The case study engaged first-year bachelor-level students (N = 30) enrolled in an undergraduate program. Our findings reveal that learning experience with the metaverse significantly shifts students' perceptions about the effort needed for adoption and enhances their metaverse literacy for education. By focusing on these dimensions, this study makes a contribution to the understanding of metaverse literacy for education, advocating for an experiential approach to learning and adaptation in digital environments.

Ning, Y., Zhang, W., Yao, D., Fang, B., Xu, B., & Wijaya, T. T. (2025). **Development and validation of the Artificial Intelligence Literacy Scale for Teachers (AILST)**. *Education and Information Technologies*, *30*(12), 17769-17803. https://doi.org/10.1007/s10639-025-13347-5

The integration of AI in education highlights the significance of Teachers' AI Literacy (TAIL). Existing assessment tools, however, are hindered by incomplete indicators and a lack of practicality for large-scale application, necessitating a more systematic and credible evaluation method. This study is based on a systematic literature review and aimed to develop the Artificial Intelligence Literacy Scale for Teachers (AILST). A random sampling method was used to collect 604 valid samples, which were analyzed using Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and the Random Forest Model (RFM). Through this process, the scale was refined to 36 items, focusing on AI perception, knowledge and skills, applications and innovation, and ethics. EFA identified four primary factors and eliminated incongruent items for theoretical coherence. CFA confirmed the robust fit of the AILST structure, with indices such as the Absolute Fit Index (AFI), Incremental Fit Index (IFI), and Parsimonious Fit Index (PFI) meeting standard criteria. RFM was used to rank the characteristics of the four elements of TAIL and their subordinate indicators, further validating their importance. This study presents a validated AILST with good reliability and validity, offering a refined tool for assessing TAIL and demonstrating strong theoretical and practical value.

Ning, Y., Zheng, H., Wu, H., Jin, Z., Chang, H., & Wijaya, T. T. (2025). **Analysis of influencing factors on teachers' AI literacy under the SOR framework: An empirical study based on PLS-SEM and fsQCA**. *Education and Information Technologies*, *30*(13), 18213-18239. https://doi.org/10.1007/s10639-025-13477-w
This study, grounded in the stimulus-organism-response (SOR) theory, aims to explore how stimulus factors (school support) influence cognitive organisms (psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI), which in turn enhance behavioral responses (AI literacy), while also examining the detrimental effects of AI anxiety. A cross-sectional design was employed, utilizing sample data from 1,518 teachers. The results of PLS-SEM indicate that school support exerts a significant positive impact on psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI. These cognitive factors, in turn, significantly enhance AI literacy. However, while AI anxiety negatively affects these cognitive factors, it does not exhibit a significant direct impact on AI literacy. Additionally, the study reveals the mediating roles of psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI in the relationship between school support and AI literacy. The findings of fsQCA identify five high-level configurational pathways and one non-high-level pathway, demonstrating an asymmetric relationship between these configurations. The consistency values of all six pathways exceed 0.9, indicating that these configurations are sufficient conditions influencing teachers' AI literacy. This study provides a theoretical framework for analyzing factors affecting teachers' AI literacy and offers practical guidance for policy interventions and innovative practices to enhance teachers' AI literacy.

Nouali, S., Badache, I., & Bellot, P. (2025). **Exploration du RAG pour la génération de réponses à des questions en contexte éducatif : étude sur les données SCIQ**. In A. pour le T. A. des Langues (Éd.), *Actes de l'atelier Intelligence Artificielle générative et ÉDUcation : Enjeux, Défis et Perspectives de Recherche 2025 (IA-ÉDU@CORIA-TALN 2025)* (p. 29-41). Consulté à l'adresse https://hal.science/hal-05205520
Retrieval-Augmented Generation (RAG) based systems are systems that optimize the power of large language models (LLMs) with information retrieval from external knowledge sources, without the need to re-train the model. This type of approach is known to improve LLM responses, particularly when answering domain-specific questions, and reduce the hallucination phenomenon seen with the latter. In this article, we explore the application of such a system in a pedagogical context, using the SCIQ dataset, set of grade-level multiple-choice scientific questions, which enables us to assess the models' ability to provide accurate, pedagogical and verifiable answers. We evaluate the system's performance against a standard generative question answering model (LLM) and analyze its strengths and limitations in an educational context. The highest performance in terms of accuracy was recorded with the RAG-based approach (rag-llama), which achieved an overall higher accuracy than the other approaches tested.

Noureddine, R., Boote, D., & Campbell, L. O. (2025). **Assessing the validity of utaut among higher education instructors: a meta-analysis**. *Education and Information Technologies*, *30*(12), 16687-16719. https://doi.org/10.1007/s10639-025-13449-0
A meta-analytic study was conducted of the Unified Theory of Acceptance and Use of Technology to understand higher education instructors use of technology in teaching and learning. Through broad searches of the years 2003–2023, 117 records were identified

for initial review. After reviewing the studies and removing those studies that were duplicates or did not meet the search criteria, ten studies remained for analysis. These ten studies representing global locales were analyzed for this meta-analysis. Results indicated that Performance Expectancy, (= 0.5398) (95% CI: 0.3052—0.7744), p < 0.0001; Effort Expectancy, (= 0.4846) (95% CI: 0.2695—0.6997), p < 0.0001; and Social Influence (= 0.2783) (95% CI: 0.0796—0.4770), p = 0.0061 are strong to moderate predictors of technology adoption; and Facilitating Conditions predict Use Behavior. The findings suggest that faculty need adequate support to ensure they adopt instructional technologies. Institutional policies and professional development initiatives should be designed to emphasize the practical benefits of a specific technology (PE), ensure both adequate training for digital literacy and selection of practical technologies (EE), and provide open and collaborative training environments with clear administrative expectations (SI). Additionally, the significance of robust infrastructure and support systems (FC) to actual use is made explicit. Addressing these factors can improve adoption among instructors, fostering innovation and enhancing the higher education learning experience. Future research should focus on the effect of moderating variables on technology adopting to reduce the heterogeneity found in the current study.

Nurlaela, N., Irfan, A. M., Rahman, M. H., Putra, K. P., Mahmud, A., & Setialaksana, W. (2025). **Understanding AR/VR Adoption through heutagogy and cybergogy: Insights from the UTAUT2 model in vocational education**. *Education and Information Technologies*, *30*(12), 17111-17132. https://doi.org/10.1007/s10639-025-13465-0
Integrating advanced technologies like Virtual Reality (VR) and Augmented Reality (AR) in educational settings can significantly enhance learning, especially in vocational education, where practical application is crucial. However, understanding the factors influencing student acceptance of these technologies remains challenging. This study examines how Heutagogical and Cybergogical Behaviors affect vocational high school students' intentions to use AR and VR in classrooms, with Virtual Experience as a mediator. By extending the UTAUT2 model, the research offers insights into technology adoption in vocational education. Conducted in July 2024 with 438 students from six Indonesian regencies, the study used a quantitative, non-experimental design. PLS-SEM analysis revealed that Heutagogical and Cybergogical activities significantly influenced students' performance and effort expectancy, increasing their intention to use AR and VR. Virtual Experience fully mediated the effects of performance expectancy, hedonic motivation, social influence, and price value on students' intentions. However, effort expectancy and facilitating conditions directly impacted behavioral intentions, underscoring the importance of ease of use and support in adopting these technologies. The findings suggest that integrating structured and self-directed learning approaches, providing immersive hands-on opportunities with AR/VR tools, and ensuring ease of use and strong institutional support can enhance technology adoption. These strategies align vocational training with industry demands, preparing students for technologically driven workplaces.

Nwagwu, W. E. (2025). **Citation analysis of global research on data literacy**. *Education and Information Technologies*, *30*(11), 15931-15959. https://doi.org/10.1007/s10639-025-13397-9
The analysis of citation patterns in the scholarly landscape of data literacy using data collected from Scopus and analysed using Vosviewer reveals significant findings. Initially, 997 documents were identified, averaging 52 per year, but a criterion of 10 citations per

document narrowed down the subset to 205 documents, indicating substantial scholarly attention. Among these, only 81 interconnected documents were found, suggesting their pivotal role in shaping discourse. Notably, Prado's (2013) work on integrating data literacy into education emerged as highly influential. Key journals and conference proceedings such as the ACM International Conference Proceeding Series and Teachers College Record were identified as influential sources. Co-citation analysis highlighted notable authors like Mandinach, d'Ignazio, and Koltay, underlining their contributions. Seminal works by Mandinach and Gummer on educator preparation underscored the interdisciplinary nature of data literacy. Implications for policy and practice include advocating for integrating data literacy into curricula, designing educator training programs, promoting interdisciplinary collaboration, and supporting open access to literature. However, potential biases and dataset limitations must be acknowledged in interpreting the findings.

Ocasio-Stoutenburg, L., Nunez, C., Sudduth, C., Nevares, A., Cruz, N., Garilli, A., … Schladant, M. (2025). **'She became this liaison'. Perspectives of a preschool community on coaches as brokers of assistive technology access, communication, and support for teachers and caregivers of children with disablities**. *International Journal of Inclusive Education*, *29*(11), 2064-2089. https://doi.org/10.1080/13603116.2024.2337058
While AT has been well-documented as a valuable support for disabled and nondisabled children across developmental domains and settings, several barriers to access and implementation persist. Studies have described heightened barriers for community-based preschools, whose access to AT professional development, AT resources, and practitioners with AT experience may be limited. Researchers in this qualitative inquiry engaged twenty-seven participants (teachers, teacher assistants, caregivers and administrators) to learn about their experiences of an AT intervention programme over a 2-year period. Using Constructivist Grounded Theory Methodology, we analysed data from focus groups and semi-structured interviews, generating five themes. Members of the school community valued the programme's AT coaches, whose presence, affective style and actions promoted their confidence using AT. While the COVID-19 pandemic impacted both programme delivery and participants' experiences, the programme and its coaches helped bolster technology and communication access in unanticipated ways. Insights from this inquiry emphasise the important, yet often understated role of building relationships with all participants when delivering community-based preschool interventions, invaluable in meeting the holistic needs of children, as well as the practitioners and families who support them. Notably, AT coaches were perceived as liaisons, building rapport, providing technical assistance, and sustaining connections within a school learning community.

Oduori, D. O., Kirui, G., & Serem, K. E. (2025). **Adoption of online/blended learning approach in the delivery of animal welfare training for animal health professionals training in Africa**. *Education and Information Technologies*, *30*(11), 15399-15412. https://doi.org/10.1007/s10639-024-13245-2
This study explores the adoption of online/blended learning approach in the delivery of animal welfare training among learners in animal health/science courses in Africa. Kenyan institutions approved to offer Animal Health training in 2020 by the Kenya Veterinary Board (18 institutions) were selected, in addition to select institutions in Gambia, Liberia, Malawi, Rwanda, Uganda and Tanzania. Online Survey were used to obtain information on the learning environment and institutional resources. Information

on the learners' perception on online/blended learning approach in animal welfare training was obtained. Eighty three precent (83%) of the participants supported the suitability of animal welfare training via online/blended learning (n = 517) with most of them agreeing that content coverage was at least above average, 49.6% (n = 508). Despite a general positive acceptance of the approach, only 52.5% had access to an internet-capable device, 36.2% had access to the timely availability of recordings/teaching notes and 26.2%, had access to reliable internet connectivity (n = 516). Pedagogical tools students had interacted with the most, and had the highest preference for in descending order were videos, photos and case reports. Online/blended learning has been largely accepted by learners undertaking animal health-related courses in Africa. It offered an opportunity for the continuity of learning when traditional classroom sessions were restricted during COVID-19 pandemic. Training institutions nonetheless are yet to fully support this approach. Learner sponsors should therefore support remote-learning by facilitating access to devices and a conducive environment.

Otto, S., Ejsing-Duun, S., & Lindsay, E. (2025). **Disruptive tensions and emerging practices: an exploratory inquiry into student perspectives on generative Artificial Intelligence in a problem-based learning environment**. *Education and Information Technologies*, *30*(13), 19111-19140. https://doi.org/10.1007/s10639-025-13533-5
This study explores the arrival of Generative Artificial Intelligence (GenAI) technologies in a collaborative Problem-Based Learning (PBL) environment from the perspective of students. It examines the emerging practices students develop individually and in groups as well as the tensions they navigate in response to GenAI's sudden arrival, its inherent limitations and multifaceted affordances, as well as the evolving landscape of formal and informal rules that frame its use. Grounded in Cultural-Historical Activity Theory, the study adopts an exploratory research approach, utilizing both qualitative and quantitative data from a survey administered to 1st and 5th semester IT students in a systemic PBL university (n = 83). Quantitative data were analyzed using descriptive statistics and principal component analysis, while qualitative data were analyzed through thematic analysis. The findings indicate a high adoption rate and generally favorable attitudes toward GenAI across both semesters. While 1st semester students were more likely to report no prior experience with GenAI compared to 5th semester students, no notable differences were observed regarding frequency or patterns of use. Overall, the arrival of GenAI manifests in the students' individual and collaborative study practices by enabling or obstructing both epistemic and pragmatic mediations of the objects. However, these interactions have been found to be accompanied by several tensions– specifically between the mediation of different objects, between students and their project groups, and between students and the rules framing GenAI use, which are discussed and contextualized in light of theory and contemporary research.

Ouattara, B. (2025). **Les facteurs de succès d'ImaginEcole, un lieu partagé entre États d'Afrique de l'Ouest et du centre pour réunir des ressources numériques d'enseignement**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146we
Au lendemain de la pandémie liée à la Covid-19 qui a durement affecté le monde de l'éducation, l'initiative ImaginEcole est apparue comme un projet novateur pour l'amélioration de l'accès aux ressources pédagogiques numériques dans dix pays d'Afrique francophone au sud du Sahara. Cet article porte sur la contribution d'Imaginecole à la réduction des inégalités numériques. À travers des entretiens et des

études de cas, il s'est agi d'identifier les facteurs de succès de cette initiative transnationale, en s'intéressant non seulement à la contribution des ressources numériques à l'amélioration de la qualité des apprentissages, mais également à celle de leur adaptation aux contextes locaux. Le retour d'expérience recueilli auprès des participants du concours Créathon dans les dix pays permet d'affirmer qu'ImaginEcole s'inscrit dans une stratégie visant à réduire les fractures éducatives et numériques, en permettant aux enseignants et aux apprenants d'accéder à des ressources éducatives adaptées aux programmes scolaires nationaux. Le Burkina Faso fait l'objet d'une attention particulière.

Pan, F., Zhao, L., & Cao, E. Y. (2025). **Revisiting factors influencing strategies for enhancing pre-service teachers' digital competencies**. *Education and Information Technologies*, *30*(11), 15361-15397. https://doi.org/10.1007/s10639-025-13416-9
The boost in the competitiveness of the teaching workforce largely hinges on the marked improvement of pre-service teachers' digital competencies. Nevertheless, there is currently a dearth of specific research exploring the relationship between prospective teachers' acceptance of technological innovation and the organizational innovation climate in conjunction with digital competencies. This research aims to bridge this gap by investigating the influential factors of strategies for enhancing digital competencies among pre-service teachers. This study delves into these competencies and their influencing factors by utilizing the SQD-6D stratagem model, a tool designed to assess six specific teaching strategies. The data were collected from 516 Chinese pre-service teachers and analyzed using partial least squares structural equation modeling (PLS-SEM). Model comparative analysis supported by five distinct models revealed compelling evidence. It was found that embracing technological innovations and fostering an innovative organizational climate are pivotal in bolstering pre-service teachers' digital proficiency. Furthermore, these two elements not only individually impact pre-service teachers' digital competences but also act as mutual mediators. This novelty framework offers valuable insights into comprehending complex dynamics associated with nurturing digital competency while providing actionable guidance for teacher educators.

Pathak, B., Alakkad, M. F., & Kumar, V. (2025). **Institutional Environment and the Use of Blockchain Technology: Exploring the Context and Conditions of Using Blockchain in the Higher Education Institutions**. *Higher Education Quarterly*, *79*(3), e70034. https://doi.org/10.1111/hequ.70034
Blockchain (BC) technology is widely believed to be the next disruptive technology that can address challenges in higher education institutions (HEIs) and support resilient strategies. This study aims to contribute to the literature and inform policymakers about BC's capability and potential in HE by examining enablers, barriers and contextual factors influencing BC adoption in HEIs. Through qualitative research, including interviews with 20 BC experts, we identified 12 factors affecting BC adoption. Key enablers include immutability, scalability, usability, management commitment, collaboration and standardisation, while barriers encompass government regulations, bureaucracy, governance and language. Additionally, privacy and cost emerged as factors that could act as both enablers and barriers. Our findings highlight the critical role of the institutional environment, revealing five new enablers and barriers to BC adoption in HE. We offer several strategies for facilitating BC technology adoption, taking into account the environmental, institutional and technological in-depth insights gained from this research.

Peltopuro, M. (2025). **Expert Advice on Limiting Digital Devices and Preserving Traditional Learning in Schools**. *European Journal of Education*, *60*(3), e70181. https://doi.org/10.1111/ejed.70181
This study explores the perspectives of professionals working with children on the impact of digital device use in schools on health and learning. A survey was conducted among 62 experts, including doctors, psychologists, and opticians, to determine safe daily limits for time spent on digital devices for different age groups. The results suggest that during the school day the recommended maximum device usage time is 1 h for young children, 2 h for pre-adolescents, and 3 h for older stude nts. The most common adverse effects reported by experts were difficulties concentrating, addiction-like symptoms, and headaches. Respondents emphasised the importance of limiting overall usage and content, banning smartphones during school hours, and ensuring that traditional learning materials and the use of digital tools are balanced to support learning. The study also stresses the importance of regular breaks and outdoor activities to mitigate health risks. The findings provide valuable guidance for creating healthier digital learning environments in schools.

Perrin, N., Piot, D., Vita, L., Bationo-Tillon, A., & Guibourdenche, J. (2025). **Des hypothèses pour concevoir des tâches permettant aux étudiants et étudiantes d'évaluer la pertinence des textes générés par les IA**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-06
La mise à la disposition du grand public des IA génératives constitue un défi pour l'enseignement supérieur. Pour faire face à cette situation, nous proposons de concevoir des tâches permettant aux étudiants et étudiantes d'évaluer la pertinence des textes générés par les IA. Nous le faisons en nous engageant dans un processus itératif de conception qui s'inscrit dans une méthode de recherche basée sur la conception. Ce processus nous permet d'expliciter et de tester nos hypothèses de conception. Celles-ci portent notamment sur les conditions de viabilité des configurations d'activités collectives en formation et sur l'incidence de toute technique – et ici de la technique des IA génératives – sur la cognition humaine.

Pinelli, M., & Cojean, S. (2025). **A working memory reversal effect on design principles? Evidence on pauses in video among children**. *Education and Information Technologies*, *30*(13), 18955-18973. https://doi.org/10.1007/s10639-025-13545-1
In the field of multimedia learning, instructional videos have become a widely used tool to facilitate knowledge acquisition across various educational contexts. However, designing these videos effectively is critical to enhancing learning outcomes and minimizing cognitive overload. To address this challenge, researchers have developed design principles aimed at optimizing how information is presented to learners. However, while the limited capacity of Working Memory (WM) is the central to the effectiveness of design principles, learners' Working Memory Capacity (WMC) has only been considered in a few studies. Previous findings in the literature suggest a WM reversal effect, for which the current study aims to provide evidence: recommendations from design principles are only beneficial for low-WMC learners and may even be detrimental for high-WMC learners. A focus is made on the design principle of imposed pauses in videos. Forty-seven children took a WMC test before watching a 7-minute instructional video. They were randomly assigned to one of two conditions: the video either included imposed pauses or did not. As expected, the results showed that the benefits of imposed pauses on

learning performance depend on WMC. Children with low WMC had better learning outcomes when pauses were imposed, while the imposed pauses had no effect on high-WMC learners. This study demonstrates the importance of WMC in the effect of imposed pauses on learning among children. Design recommendations regarding pauses in videos should specify that the beneficial effect of imposed pauses depends on learners' WMC. Further research on the WM reversal effect should explore other design principles.

Proust-Androwkha, S., & Denis, C. (2025). **Utiliser ChatGPT dans un travail de conception pédagogique : une étude des perceptions des étudiants basée sur le modèle de l'acceptation située**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-07
Cet article porte sur l'intégration de l'intelligence artificielle générative, et plus particulièrement du chatbot ChatGPT, dans l'enseignement supérieur. Il explore comment l'usage prescrit de ChatGPT dans un cadre pédagogique influence l'acceptation des étudiants vis-à-vis de cette technologie. S'appuyant sur l'approche de l'« acceptation située » de Bobillier Chaumon (2016), ajustée au contexte d'apprentissage, l'article analyse l'acceptation technologique à travers quatre dimensions : individuelle, interpersonnelle, organisationnelle et transpersonnelle. La méthodologie adoptée est qualitative, analysant 31 comptes-rendus réflexifs d'étudiants ayant expérimenté ChatGPT lors d'une activité pédagogique conduite entre décembre 2023 et janvier 2024. Les résultats montrent des perceptions variées des étudiants. Ils soulignent l'importance de maintenir l'engagement actif et l'esprit critique des étudiants face aux technologies émergentes, afin de maximiser leur potentiel éducatif tout en gérant les défis qu'elles présentent.

Putra, Z. H., Sumadinata, H., Witri, G., Barokah, R. G. S., Gunawan, Y., Dahnlisyah, & Mohd. Jamil, Mohd. R. (2025). **The effect of gender, high school major, admission process, and year of study towards pre-service elementary teachers' computational thinking skills**. *Education and Information Technologies*, *30*(11), 15871-15889. https://doi.org/10.1007/s10639-025-13429-4
Computational thinking, a critical cognitive process from computer science, has gained prominent role in various academic domains, particularly mathematics. It involves problem decomposition, pattern recognition, algorithmic thinking, and abstraction. While previous studies have extensively explored computational thinking at the primary and secondary education levels, there is a noticeable gap in studies focused on pre-service teachers. This study seeks to bridge that gap by analyzing the computational thinking skills of pre-service elementary teachers in Riau, Indonesia. The research employs a quantitative approach, utilizing non-parametric tests to examine the influence of different variables, including gender, high school major, admission process, and year of study. A sample of 244 pre-service elementary teachers from the Elementary Teacher Education at a Public University in Riau, Indonesia, participated in the study, with data collected through a validated test comprising 22 questions based on computational thinking frameworks. The findings reveal significant differences in computational thinking skills based on the admission process and high school major. However, no significant differences were evident concerning gender and academic cohorts. These results provide valuable insights into the program to support pre-service elementary teachers' computational thinking through curriculum development in this area.

Qasem, F. A. A., & Alasmari, M. (2025). **Navigating educational models: Face-to-face, blended, or online in EMI contexts during crisis and recovery**. *Education and Information Technologies*, *30*(11), 16107-16131. https://doi.org/10.1007/s10639-025-13446-3
Several countries have experienced all types of education, face-to-face, blended learning, fully online teaching, either before the COVID-19 pandemic, during Covid-19 quarantine period, or post COVID-19 quarantine. Most of the countries have returned to ordinary life after the developing of the COVID-19 vaccine, and various academic institutions applied back the face-to-face or blended education after the full online experiences during the quarantine. The present study was conducted to explore the teachers' perspectives on which educational option is better for teachers and learners in English Medium of Instruction (IME) context particularly during times of crisis and recovery. The findings of the study were attained quantitatively through a survey and thematic analysis was applied to obtain the qualitative data from open-ended questions and informal interviews with teachers who have experienced the three models of teaching. The results indicated that preferences were higher for blended learning to that of face-to-face and fully online education. The results exhibited that blended learning enhances EMI learner's engagement, creating an environment that is good and rich for the learners. The learner's response and awareness are far better, especially if the course materials and content are designed and prepared well. The findings also showed that face-to-face teaching is effective in controlling the classrooms and ensured the engagement and participation of the learners without any technical distractions. The participants also believed that online teaching helped in improving the communication (speaking) skills of learners and in equipping teachers and the students with modern activities and authentic materials.

Qiu, G. (2025). **On the Relationship Between Students' Perceived Support, Students' Self-Efficacy, and Affect-Emotions in AI-Enhanced Learning Environments**. *European Journal of Education*, *60*(3), e70180. https://doi.org/10.1111/ejed.70180
In response to the growing integration of artificial intelligence (AI) in educational settings, particularly in language learning, there is a pressing need to understand the psychological and pedagogical factors that influence learners' emotional and academic experiences. EFL learners were selected for this study because language learning involves high levels of emotional engagement, communicative interaction, and cognitive challenge—factors that are especially sensitive to perceived support and self-efficacy in AI-enhanced environments. Building on this foundation, the present study aimed to investigate the complex interactions between teacher support, student self-efficacy, and emotional responses, acknowledging the crucial role these variables play in shaping effective, motivational learning experiences for EFL students. It involved 1115 English as a foreign language (EFL) students from diverse Chinese universities, using convenience sampling for a representative mix of academic levels. Instruments included the teacher support scale (TSS), the college academic self-efficacy scale (CASES), and the emotion scale. Advanced statistical tools like SPSS v27 and AMOS v24 enabled structural equation modelling (SEM) to explore these relationships. Results showed that teacher support and student self-efficacy together explain 57% of emotional variance. Specifically, teacher support alone accounted for 55%, emphasising its role in positive emotional experiences. Student self-efficacy contributed uniquely with 44%, enhancing confidence and motivation in AI-enhanced learning. Overall, the study underscores the significant impact of both teacher support and student self-efficacy on the emotional well-being of EFL students in such learning environments.

Radović, S., & Seidel, N. (2025). **Introduction to the SRL-S Rubric for Evaluation of Innovative Higher Educational Technology for Self-Regulated Learning**. *Innovative Higher Education*, *50*(4), 1169-1202. https://doi.org/10.1007/s10755-024-09771-z
The integration of advanced learning analytics and data-mining technology into higher education has brought various opportunities and challenges, particularly in enhancing students' self-regulated learning (SRL) skills. Analyzing developed features for SRL support, it has become evident that SRL support is not a binary concept but rather a continuum, ranging from limited to advanced levels of SRL support. This article introduces the rubric, designed to evaluate the degree of self-regulated learning support available within technology enhanced learning environments. Following rubric design best practices, we took a multifaceted methodological approach to ensure rubric validity and reliability: consulting Zimmerman's theoretical model, comparing technological features distilled from empirical studies that demonstrated significant effectiveness, consulting SRL experts, and iterative development and feedback. Across three phases of SRL the rubrics describe evaluation criteria and in detail define performance levels (Limited, Moderate and Advance). By employing the rubric, educators and researchers can 1) gain insights into the extent of implemented SRL approaches, 2) further develop SRL support of learning environments, and 3) better support students on their journey towards becoming self-regulated learners. Finally, the reliability analysis demonstrated a high degree of agreement among different raters evaluating the same course, indicating that the rubric is a reliable tool for obtaining relevant evaluations of SRL support in higher education. We conclude by discussing the significance of the rubric in promoting self-regulated learning within the current pedagogical and technological landscape.

Rahman, A., & Freeman, A. (2025). ***Artificial Intelligence and Education Systems in 2035: Fourteen trends and five scenarios for how the future might unfold*** [Technical Report]. Consulté à l'adresse EdTech Hub website: https://docs.edtechhub.org/lib/HF6HI7XM
This strategic foresight study aims to understand the shifts that might take place in education systems in low- and middle-income country (LMIC) contexts, given developments in artificial intelligence (AI) that might occur over the next 10 years. It begins by capturing fourteen trends, relating to AI that might affect the development of education systems in LMICs. After identifying trends, we combined them to sketch five concrete, tangible scenarios. This understanding will inform a multi-year programme of work, addressing how LMICs can strengthen their capacity, in light of such future possibilities. An output of the EdTech Hub, https://edtechhub.org/

Ramezani, S. G., Mostafavi, Z. S., & Godfrey, H. (2025). **A Checklist for a Comprehensive Accreditation Model for Fully Electronic Higher Education Institutions: Synthesising Criteria and Expert Perspectives**. *Higher Education Quarterly*, *79*(3), e70030. https://doi.org/10.1111/hequ.70030
This research focuses on developing a comprehensive accreditation model for online, electronic, and distance education in higher education institutions (OEDE-HEIs). The surge in OEDE's global prevalence necessitates an evolved accreditation framework that addresses unique institutional needs. This study employs a mixed-methods approach, combining a deductive meta-synthesis of existing literature with an inductive, qualitative analysis of expert opinions. The objective was to integrate various accreditation criteria into a cohesive checklist tailored to OEDE-HEIs, ensuring robustness and relevance in the rapidly changing educational landscape. The research identified 5 principal themes and

45 subthemes, encompassing organisational structure, educational dimensions, research integration, support systems, and technological infrastructure. Key findings include the importance of organisational adaptability, emotional and administrative support, and the critical impact of technology on all facets of OEDE. This led to the creation of a novel, all-encompassing accreditation checklist, offering a holistic view of essential factors for high-quality, responsive online education. Additionally, the study highlights potential limitations, including regional biases from expert feedback and the dynamic nature of technological advancements. Recommendations for future research include broadening expert perspectives, regular updates to the accreditation criteria, and examining practical application challenges. This research contributes to the field by providing a detailed framework for accrediting OEDE-HEIs, fostering a more holistic, adaptable, and student-centric approach. Its implications extend to practitioners, policymakers, and educators, guiding operational strategies, policy formulation, and educational delivery enhancements in OEDE-HEIs.

Rao, Y., Yin, R., Chen, R., Li, J., & Chen, Y. (2025). **The potential of dynamic mathematics systems to promote mathematical abstraction levels of secondary school students**. *Education and Information Technologies*, *30*(11), 15587-15619. https://doi.org/10.1007/s10639-025-13373-3
Mathematical abstraction constitutes the foundational cornerstone for the establishment and evolution of mathematical disciplines, serving as the pathway through which mathematical concepts emerge. As one of the information technologies widely applied in mathematics education, the Dynamic Mathematics Systems (DMS) have been found to have a positive impact on mathematics learning. However, how DMS enhances students' mathematical abstraction skills remains a worthwhile area of exploration. In this research, with the aim of fostering secondary school students' mathematical abstraction skills, we have developed a visual, dynamic, and incremental Learning Progression-Dynamic Mathematical System (LP-DMS) teaching model. This model is grounded the dynamic mathematics systems and is guided by the theory of learning progression. It comprises five key stages: Delineating dimensions of the level of mathematical abstraction, Designing the content and activities of instruction, Formulating realistic representations of mathematical abstraction levels, Designing evaluation tasks, and Assessing the effectiveness of teaching. Students from a secondary school in Guangzhou were selected to participate in a quasi-experimental research under the guidance of the LP-DMS model. The changes in the mathematical abstraction levels of the students in the experimental class were evaluated by quantitative analysis and interviews. The results suggested that (1) the mathematical abstraction of students in the experimental class was significantly elevated, and (2) students' ultimate mathematical abstraction varied notably among different knowledge topics, especially in challenging domains. The findings of the study indicate that the LP-DMS teaching model is effective in enhancing the mathematical abstraction levels of secondary school students.

Reljic, J., Evangelista, R., & Pianta, M. (2025). **Digital technologies, employment, and skills**. *Industrial and Corporate Change*, *34*(3), 385-406. https://doi.org/10.1093/icc/dtab059
This article investigates the relationship between the diffusion of digital technologies, employment, and skills. The empirical analysis is carried out on industry-level data of six major European economies (Germany, France, Spain, Italy, the Netherlands, and the UK) over the 2009–2014 period. We analyze two dimensions of digitalization: industries' consumption of intermediate inputs from digitally intensive sectors and investment in

Information and Communication Technology (ICT) tangible and intangible assets, considering also patterns of demand, education, technological change, and offshoring. The results show that job creation in industries is positively associated with an increasing share of digital goods and services in total intermediate inputs and is negatively linked with processes of ICT capital deepening. We then explore how these two different patterns of digitalization are related to the evolution of four occupational groups—managers, clerks, craft, and Manual workers, defined on the basis of International Standard Classification of Occupations classes—finding a positive link between ICT consumption and managerial jobs, and negative ones between digital variables and mid-skill occupations.

Richter, S., Kishore, S., Piven, I., Dodd, P., & Bate, G. (2025). **Chatbots in tertiary education: Exploring the impact of warm and competent avatars on self-directed learning**. *British Journal of Educational Technology*, *56*(5), 2102-2124. https://doi.org/10.1111/bjet.13610
This study investigates how anthropomorphic AI chatbot avatars, designed in line with the Stereotype Content Model (SCM) dimensions of warmth and competence, influence university students' perceptions of support for self-directed learning (SDL) activities. We examined student responses to two distinct avatars—one projecting warmth and the other projecting competence. Using an Action Design Research (ADR) approach, we evaluated the chatbots across three university courses, incorporating perspectives from students, educators and learning designers. Findings reveal that students perceive the avatars differently. The warm avatar provides a stronger emotional connection, while the competent avatar offers more effective task-oriented learning support. These results highlight the importance of balancing warmth and competence in chatbot design to enhance their perceived usefulness for supporting SDL engagement. The study also supplies rich insights into practical implementation challenges and opportunities from multiple stakeholder viewpoints. Altogether, the research advances our understanding of SCM-informed chatbot design in educational settings and proposes practical principles for developing AI tools that students perceive as helpful, thereby contributing to the field of human–AI interaction. Practitioner notes What is already known about this topic The potential of AI chatbots to support aspects of self-directed learning (SDL) in higher education is currently being explored. User perceptions of AI systems are influenced by anthropomorphic design cues, often understood through dimensions like warmth and competence (related to the Stereotype Content Model—SCM). Designing AI educational tools requires considering how different interactional styles (eg, warmth vs. competence) can affect student engagement and perceived usefulness. What this paper adds Empirical insights into students' perceptions of chatbot avatars designed with varying levels of warmth and competence, based on the SCM, and how these perceptions relate to their reported engagement and perceived support for SDL in university courses. Evidence that students distinguish between warmth and competence in chatbot avatars, associating warmth with socio-emotional connection and competence with task-related learning support. A set of SCM-informed design principles for developing anthropomorphic chatbots intended to be perceived as helpful and engaging for supporting SDL. Evidence of integrating educator and designer perspectives (through Action Design Research) to uncover practical implementation factors beyond student perceptions alone. Implications for practice and/or policy Educators can select or advocate for chatbot designs that appropriately balance warmth and competence based on specific pedagogical goals and perceived student needs (eg, more warmth for initial engagement and more competence for complex task

support). When implementing chatbots for SDL support, institutions should consider designs informed by user perception research (like SCM) to increase the likelihood of student acceptance and perceived value. Policy discussions on AI in education should incorporate user-centred design principles, including SCM dimensions, alongside ethical guidelines to support responsible adoption and the development of tools perceived as effective by users.

Rinck, F. (2025). **Des textes de l'IA générative pour former à l'enseignement de la production écrite**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-10
L'article présente une expérience menée auprès de futurs enseignants et enseignantes du primaire en France. Pour les former à l'enseignement de l'écriture, des textes issus des IA génératives ont été utilisés en complément de textes produits par des élèves du primaire et de textes produits par les futurs enseignants et enseignantes, tous selon la même consigne. L'expérience amène les enseignants et enseignantes à lire en profondeur les textes des élèves, à s'interroger sur les caractéristiques du texte attendu et sur les objectifs à donner aux élèves pour leur faire travailler étape par étape tous les ingrédients nécessaires au texte à produire.

Riyat, M. K., & Kakkar, A. (2025). **Examining the role of the expectancy confirmation model in sustaining user intention on educational Technology platforms**. *Education and Information Technologies*, *30*(11), 16083-16106. https://doi.org/10.1007/s10639-025-13434-7
Technological advancements, particularly in the field of education, are influencing the future course of education and the process of acquiring knowledge. Prior studies have investigated the implementation of education technology (edtech), but has paid little attention on continuous intention of using it. This research broadens the application of the expectancy confirmation model with edtech platforms features and positive word of mouth (WOM) along with investigates perceived usefulness (PU) derived by users from ed-tech platforms services that can affect the level of satisfaction and to check whether this satisfaction influences continuous intention and WOM. The study also investigates whether this satisfaction influences their intention to continue using the platform and their likelihood to recommend it to others. Purposeful sampling is employed to acquire data from respondents. The initial number of respondents was 610. However, respondents who had no prior experience with the platforms or had provided inadequate data were eliminated. Therefore, a total of 559 relevant respondents were included in the study. The data were analysed using SmartPLS version 4. The study's findings suggest that user satisfaction, as measured by the perceived usefulness of platforms, has a favourable impact on both the user's intention to continue using the platform and their likelihood to engage in positive word-of-mouth communication about edtech platforms.

Roy, N., Proust-Androwkha, S., Gruslin, É., Vallerand, V., & Charles, É. (2025). **L'intelligence artificielle au postsecondaire : entre enthousiasme et méfiance – Introduction au numéro thématique**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-01

Saboor, A., Khan, M. Z., Khan, M. N., Hussain, T., Attar, R. W., Alnfiai, M. M., & Almalki, N. S. (2025). **Exploring the factors that influence students acceptance and use of online learning technology in higher education institutes of Khyber Pakhtunkhwa Pakistan**.

Education and Information Technologies, *30*(13), 18433-18460. https://doi.org/10.1007/s10639-025-13543-3

Online learning technologies have turned into an essential part of education, particularly in this cutting-edge era of ICT. These technologies are becoming more and more popular in increasing educational access in impoverished nations. The ongoing investigation looks into the variables impacting students' use of online learning technologies in universities, particularly considering the circumstances of Khyber Pakhtunkhwa (KP), Pakistan. We use the Structural Equation Modeling (SEM) and Unified Theory of Acceptance and Use of Technology (UTAUT) paradigm model, which provided a strong analytical background for understanding the dynamics of technology acceptance and usage within this situation. This study examined the UTAUT model among 410 students from KP's higher education institutions. A strong correlation was found between constructs, supporting 10 of 16 hypotheses. Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC) and Attitude (At) explained 73% of Behavioral Intention (BI) variance. These variables also accounted for 63% of At variance. BI and At jointly explained 73% of Use Behavior (UB) variance. The significant relationships in the study include PE having a significant effect on BI (β = 0.347, p-value = ***), SI affecting BI (β = 0.130, p-value = 0.006) and At significantly influencing BI (β = 0.312, p-value = ***). Additionally, PE and EE both significantly impact At, with β values of 0.339 and 0.367, respectively (both p-values = ***). At also significantly predicts UB (β = 0.229, p-value = 0.002), while BI has a strong effect on UB (β = 0.668, p-value = ***). The analysis reveals PE has a weak effect on At (f^2 = 0.13) and a moderate effect on BI (f^2 = 0.17), while both At (f^2 = 0.19) and BI (f^2 = 0.15) have moderate effects on UB. The study's conclusion shows that the success of online learning technologies positively impacts the students' actual use behavior in higher education institutions. This suggests a positive correlation between the usage of online learning software tools and the achievement of education goals. By recognizing and understanding these perceptions, we recommend that facilitators and institutes make up-to-date assessments to improve student online learning involvement. The study adds valuable knowledge regarding the elements impacting students' adoption and acceptance of online learning technologies at universities. The study emphasizes the importance of fostering a supportive environment for integrating online learning tools in educational settings.

Şahin, F. (2025). **Psychological drivers shaping mobile learning utilization among visually impaired university students**. *Education and Information Technologies*, *30*(11), 16163-16187. https://doi.org/10.1007/s10639-025-13430-x

Understanding the various factors influencing the utilization of mobile learning is pivotal to ensuring that visually impaired students can fully harness its benefits. However, there exists a notable gap in empirical research concerning the influence of psychological needs on the adoption of mobile learning among visually impaired students. This study delves into exploring mobile learning adoption among university students with visual impairment, focusing on the influence of basic psychological needs using a path modeling approach grounded in the Technology Acceptance Model and Self-Determination Theory. The investigation involves 341 visually impaired students enrolled in an open education faculty of a state university. Confirmatory factor analysis, structural equation modeling, and bootstrapping were employed for the analysis. The results affirm the model's substantial explanatory power, revealing that the constructs—perceived ease of use (81.5%), perceived usefulness (84.8%), and behavioral intentions (74.7%)—are well elucidated by the proposed framework. The results underscore the significance of

competence and relatedness in influencing acceptance and intention to use mobile learning among visually impaired students, highlighting the pivotal role of fostering skills mastery and social support in shaping technology adoption. Intriguingly, certain relationships, notably autonomy- > perceived usefulness and perceived usefulness- > behavioral intention, were deemed insignificant, revealing nuanced dynamics in acceptance and use. This study contributes valuable insights into understanding the complex interplay between basic psychological needs and mobile learning adoption, emphasizing the necessity for tailored interventions and support mechanisms to foster inclusive and effective technology use in the educational journey of visually impaired students.

Saiz-González, P., Sierra-Díaz, J., Cecchini, J. A., & Fernandez-Rio, J. (2025). **Delving into the 'why, what, and what for' of digital technology use in physical education**. *Education and Information Technologies*, *30*(13), 18733-18748. https://doi.org/10.1007/s10639-025-13547-z

The use of digital technologies is a reality in the educational context. Smart boards, computers, laptops, tablets or internet connection are frequently used in education. In physical education (PE), the use of digital technology is also gaining traction. However, little is still known about which digital technologies are being used, why they are being used, and how they are being used. Thus, the purpose of this study was to use a qualitative cross-sectional research design based on a web-based survey study where participants self-reported their responses to answer this question. Completed surveys were returned by 213 PE teachers (71 females and 142 males, ages 23–66, M = 41.47 years). Six technological tools were identified as the most used in PE: apps, smartphones/tablets, speakers, smartwatches, stopwatches, and exergames. Furthermore, the results showed that most participants used digital technology mainly to improve and streamline their teaching (scheduling, time management, assessment and grading, recording videos, playing music, and sending tasks). However, they also used it to teach specific content, to support the transfer of knowledge to the daily lives of the students and as a resource for students' work. Despite the unique challenges of the subject, some teachers are leading the way for digital technology use in PE. The experiences of the participants in this study could be useful for other teachers considering the use of digital technology in their lessons.

Salem, M., & Shaalan, K. (2025). **Unlocking the power of machine learning in E-learning: A comprehensive review of predictive models for student performance and engagement**. *Education and Information Technologies*, *30*(13), 19027-19050. https://doi.org/10.1007/s10639-025-13526-4

The proliferation of digital learning platforms has revolutionized the generation, accessibility, and dissemination of educational resources, fostered collaborative learning environments and producing vast amounts of interaction data. Machine learning (ML) algorithms have emerged as powerful tools for analyzing these complex datasets, uncovering patterns and trends that offer deeper insights into student performance and engagement. This systematic review examines the application of ML models in e-learning, synthesizing current research findings, methodologies, and challenges. Key contributions include the categorization of ML models based on their applications, an analysis of their predictive accuracy in forecasting student performance and engagement, and the identification of critical data types and sources that enhance model effectiveness. The study highlights ML's transformative potential in personalizing

educational experiences, enabling targeted interventions, and improving learning outcomes. Furthermore, it explores the role of ML in facilitating data mining activities, predictive algorithms, and outcome-driven educational strategies within diverse online learning environments. By addressing gaps in the literature, this review not only underscores the practical implications of ML in e-learning but also identifies future research directions aimed at advancing the integration of ML technologies in educational systems. These insights provide a foundation for educators, researchers, and technologists to harness ML for enhancing teaching and learning processes.

Samuelsson, R. (2025). **From technological distribution to educational innovation: How context, curriculum, and local practice frame educational technology use in early childhood education**. *Education and Information Technologies*, *30*(12), 17023-17048. https://doi.org/10.1007/s10639-025-13462-3
For decades, educational technologies have been distributed to educational arenas, more recently also including early childhood education. However, many problems stem from a less transformative first-order change in the implementation of digital technologies. This study follows the changing states of educational technologies from three case studies spanning 2015–2022, during which early childhood curricular changes occurred in Sweden. Drawing on an ecological framework, three ethnographies of technology-in-use are examined for how technological affordances affect practice, using meta-ethnography comparisons and qualitative ethnographic analysis. Results show how macro-level curricular change interplays with local rules, technological offerings, pedagogical practice, and interaction to influence how technologies are used and pedagogies are shaped. The paper discusses how local negotiations make second-order educational innovation possible considering all ecological change layers and adds how pedagogy-first and child-first models can work to drive critically informed change in early childhood educational environments.

Şanal, S. Ö., Güler, T. D., & Torun, F. (2025). **Supporting learning difficulties with e-book based on context-based teaching strategy from social perspective: design and experience**. *Education and Information Technologies*, *30*(11), 14661-14702. https://doi.org/10.1007/s10639-024-13314-6
Although the positive effects of the use of technology for students with learning disabilities (LD) have been reported, there is a lack of both theory and practice in terms of integrating technology with the appropriate strategy in accordance with the student, content and purpose. Both teaching materials developed with qualified strategies and the active involvement of the target audience in the process are a need to design effective and sustainable learning materials and processes for LD. This study involved both the production of a material with the common views of stakeholders related to LD (individuals diagnosed with LD, special education teachers, academics working on LD) and the examination of the effectiveness of this material. The focus of the study is primarily on the fact that human being is a social being and learning, language and reading are social phenomena. In this context, within the framework of social constructivist perspective, an e-book design based on context based teaching (CBT) strategy and its effectiveness on reading performance were analysed. The study involved a two-stage process. In the first phase, design-based research was conducted and a CBT-supported e-book (DIJIKIT) was developed. In the second stage, DIJIKIT and an e-book were compared in an adapted alternating implementation design. The participants of the study in the CBT process consisted of researchers, three special education teachers,

academicians and two primary school students diagnosed with learning disabilities. In each cycle of the DBR, the participants provided feedback on the material. Semi-structured interviews, focus group discussions, video recordings and a researcher's diary were used as data collection tools in the DBR. As a result of the DBR, DIJIKIT design and content features were determined. In the experimental process, DIJIKIT was used by three primary school students diagnosed with learning disabilities. In the experimental process, efficacy (the informal reading invetory), reliability (treatment integrity, interobserver agreement) and social validity (social validity forms) data were collected. The reading comprehension performances and reading levels of all three students increased. Social validity data supported the experimental process data and clearly demonstrated the need for effective instructional technologies for both parents and teachers. The study offers practical implications and recommendations for future researchers in terms of exemplary design features and greater visibility of the relationship between instructional technologies and special education.

Sanusi, I. (2025). **Artificial intelligence in school education: the case of Nigeria**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vp
In line with global trends, the integration of artificial intelligence (AI) into the Nigerian school system has begun to take shape. However, efforts related to instructional and pedagogical design, professional learning programmes, and guidelines for best practices remain limited, given the inherent contextual features. Although the recently launched draft of the National AI Strategy shows promising development in building an AI ecosystem in the country, additional considerations are necessary to ensure the effective integration of AI into teaching and learning practices. This paper provides insights into teaching about AI and utilising AI in the classroom within the Nigerian school system. It further highlights the Nigerian government's initiatives on AI, including ethics, professional development needs, the state of instructional design, and the way forward for effective AI integration in the school system.

Saritepeci, M., Balıkçı, H. C., & Ermiş, U. F. (2025). **Factors associated with multi-screen addiction and academic resilience: A multigroup analysis by school level**. *Quality & Quantity*, *59*(3), 2535-2553. https://doi.org/10.1007/s11135-025-02076-z
Academic resilience (AR) could function as a preventative factor in mitigating a potential risk of the rising prevalence of excessive screen time and multi-screen addiction (MSA) among adolescents. The study examines the relationship between MSA and AR and the critical factors associated with these two variables in middle and high school students. The study was conducted with 405 students, 218 middle and 187 high school students. A multigroup analysis reveals the mitigating effect of AR on MSA for both sub-samples. It also shows that the role of daily time spent with family in relieving MSA is significant for both sub-samples. However, while the effect of daily watching time on MSA is significant only for high school students, the impact of the level of utilization of ICT for fun on MSA is noteworthy only for middle school students. For both sub-samples, ICT use for research purposes and participants' perceptions of learning performance ranking level are substantial predictors of AR. However, the effect of daily time spent with family on AR is significant for the high school sub-sample but not for the middle school group.

Seddini, M. O., Ez-Zaouia, M., & Marfisi-Schottman, I. (2025, juin 10). ***Exploitation de l'Intelligence Artificielle Générative pour les Activités Éducatives en Réalité Mixte***. Présenté à EIAH 2025 - 12ème Conférence sur les Environnements Informatiques pour

l'Apprentissage Humain / Atelier GT Apprentissage et Éducation. Consulté à l'adresse https://inria.hal.science/hal-05167947
Cet article explore l'utilisation de l'IA générative pour créer des activités éducatives en Réalité Mixte (RM). Un prototype intégrant trois modules (IA Prompteur, IA Chat, IA Tuteur) aide les enseignants à concevoir des activités en générant du contenu multimodal et en offrant des expériences immersives. Évalué lors d'une étude préliminaire, le prototype montre un potentiel prometteur tout en mettant en évidence des limitations techniques à améliorer.

Setyadi, A., Pawirosumarto, S., Damaris, A., & Dharma, R. (2025). **Risk management, digital technology literacy, and modern learning environments in enhancing learning innovation performance: A framework for higher education**. *Education and Information Technologies*, *30*(11), 15095-15123. https://doi.org/10.1007/s10639-025-13380-4
This study aims to explore the influence of risk management and digital technology literacy on learning innovation performance, with a particular focus on the moderating role of modern learning environments. The research employs a quantitative approach using data collected from 385 Indonesian university students, analyzed through Structural Equation Modeling-Partial Least Squares (SEM-PLS) to validate the proposed framework. The results demonstrate that effective risk management significantly enhances institutional adaptability and fosters success in implementing innovative learning strategies. Moreover, higher levels of digital technology literacy empower students to engage more effectively with modern learning technologies, leading to improved performance outcomes. The findings also highlight that the moderating effect of modern learning environments strengthens these relationships, underscoring the importance of robust digital infrastructure and adaptive pedagogy. This study provides theoretical contributions by integrating risk management, digital literacy, and innovation within the context of education. Practical implications include recommendations to optimize risk management frameworks, enhance digital literacy programs, and invest in modern learning ecosystems to support academic success and institutional resilience.

Shambare, B., & Jita, T. (2025). **A new era of learning: exploring science teachers' perceptions of virtual lab in rural schools**. *Education and Information Technologies*, *30*(11), 15185-15205. https://doi.org/10.1007/s10639-025-13412-z
Virtual learning technologies have become integral in education globally, with developed countries leading in implementation. In contrast, Global South countries like South Africa are only beginning to conceptualise Virtual Laboratory (VL) integration, with limited practical implementation. This study underscores the importance of understanding teachers' perceptions of VL before deployment to minimise the risk of underuse or abandonment. Guided by the Technology Acceptance Model Davis (MIS Quarterly 13(3):319–340, 1989), this research employed a sequential explanatory mixed-methods approach. In Phase 1, 186 Life Sciences teachers from South Africa's Eastern Cape province participated in a survey and semi-structured interviews with four teachers in Phase 2. Data were analysed using descriptive statistics and thematic analysis. Findings reveal that teachers perceive VL positively and see potential benefits for rural education. The study also signals that intent alone may not lead to full adoption. This study contributes unique insights from rural teachers often absent in the broader technology adoption dialogue.

Shang, S., Yi, T., & Lyv, W. (2025). **Effects of learners' course network characteristics on continuous online learning: moderation roles of social learning and social exposure**. *Asia Pacific Education Review*, *26*(3), 733-748. https://doi.org/10.1007/s12564-024-09975-0
Promoting continuous learning behavior is a key challenge for online learning. The present paper empirically examines the effects of course network characteristics including course network size, course network diversity, and course strong ties on continuance behavior, considering the moderating impacts of social learning and social exposure. Ordinary least squares regression is employed to validate the effects, using a data set of 2190 users and information on 65,080 courses that was collected from the Chinese University MOOC, which is the largest MOOC platform in China. The results show that those who registered for smaller course size, greater network diversity, and stronger ties between courses are more likely to engage in continuous learning in MOOCs. Further, social learning weakens and social exposure strengthens the positive relationship between course network diversity and continuance behavior. And the negative impact of course network size on continuance behavior is alleviated by social exposure. This research provides a deep understanding of continuance behavior in MOOCs and guidelines for reducing the high dropout rate in online learning.

Shi, Wei, & Wang, D. (2025). **Empirical research on the application of AI mock interviews in enhancing graduate perceived employability: a case study in Hangzhou, China**. *Education and Information Technologies*, *30*(13), 18461-18484. https://doi.org/10.1007/s10639-025-13525-5
Employability has been a key area of interest for researchers, especially as China faces increasing pressure in the labor market due to shifting supply and demand dynamics. Despite a steady increase in the number of graduates over the past five years, employment rates have declined, and the rates of slow employment, a slower state of employment, which usually manifests itself in graduates failing to find a job for a long time after graduation or choosing to delay employment, have been rising. Graduates' self-confidence in their employability is one of the most critical indicators of successful employment. Given the rapid digitization in higher education and employment preparation, artificial intelligence (AI) technologies, such as AI mock interviews, have gained increasing attention. Previous researches have shown that innovations, such as digitalization, asynchronous methods, and AI mock interviews, are beneficial for career preparation. However, empirical studies on the application of AI mock interviews in China remains limited. This study aims to investigate the impact of AI mock interviews in improving graduate perceived employability and short-term employability performance through a quasi-experimental design. A total of 42 participants were selected via convenience sampling for the experiment conducted in Hangzhou, Zhejiang, China. The findings suggest that AI mock interviews can improve graduate perceived employability and its dimensions except reconsideration of commitment, and also effectively optimize graduates' employability performance in real interview scenarios. This research provides new insights for higher education institutions focusing on improving career planning strategies and offers a practical foundation for enhancing graduates' self-assessment of their perceived employability in a more competitive labor market.

Shi, Wenwen, & Shakibaei, G. (2025). **Insights Into the Effectiveness of Artificial Intelligence-Integrated Speaking Instruction in Enhancing Speaking Skills and Social–Emotional Competence as Well as Reducing Demotivation and Shyness**. *European Journal of Education*, *60*(3), e70174. https://doi.org/10.1111/ejed.70174

Despite the recognised importance of communicative competence in language acquisition, many English as a Foreign Language (EFL) learners persistently grapple with affective barriers such as speaking anxiety, shyness, and demotivation, alongside underdeveloped social–emotional competence (SEC), challenges that traditional speaking instruction methods have often struggled to comprehensively address. Consequently, this study aimed to investigate the influence of Artificial Intelligence (AI)-integrated speaking instruction on EFL learners' SEC, demotivation to speak, shyness, and speaking skill development, thereby addressing a crucial gap by evaluating a novel technological intervention. To achieve this, a quasi-experimental design was employed, allocating participants into an experimental group (EG) receiving AI-integrated speaking instruction and a control group (CG) engaging in traditional speaking instruction via the Big Blue Button platform; pre- and post-intervention data were collected using validated questionnaires for SEC, demotivation, shyness, and speaking development, supplemented by an attitude questionnaire for the EG. The results from a one-way MANOVA revealed statistically significant and positive outcomes for the AI-integrated approach, with learners in the EG demonstrating substantial improvements in their SEC and overall speaking skills, alongside a significant reduction in demotivation to speak and shyness when compared to the CG, a finding corroborated by the EG participants' predominantly positive attitudes towards the AI intervention. These findings carry important implications for EFL pedagogy, suggesting that AI-integrated speaking instruction presents a more efficacious strategy for concurrently enhancing learners' speaking proficiency and fostering crucial social–emotional skills, thus providing empirical support for integrating AI tools to create more supportive and effective pathways for EFL students to overcome affective hurdles and improve their communicative abilities.

Shruthi, H. L., Radhakrishnan, A., Veigas, A. D., Railis, D. J., & Dinesh, R. S. (2025). **Analyzing pedagogy and education in English language teaching using information and communication technology**. *Education and Information Technologies*, *30*(12), 16551-16573. https://doi.org/10.1007/s10639-025-13439-2
Pedagogy and education in the English language have experienced a transformative impact with the integration of Information and Communication Technology (ICT). This dynamic combination has enhanced instructional strategies, fostered interactive learning environments, and equipped learners with essential digital literacy skills (DLS). Integrating ICT in English language teaching (ELT) can pose a challenge for teachers who lack proficiency in using these tools effectively, potentially leading to ineffective use of knowledge in the classroom. The study's novelty lies in revising the Technology Acceptance Model (TAM) for ICT in ELT, integrating multiple pedagogical approaches with modern ICT tools, and emphasizing simulated authenticity and AI to advance interactive and engaging language learning, thereby significantly contributing to effective language teaching through technology. The research on "Analyzing Pedagogy and Education in English Language Teaching Using ICT highlights key gaps, including the impact of teachers' ICT proficiency, the need for longitudinal studies on ICT's effects, the underexplored effectiveness of specific ICT tools and pedagogical models, and the potential of AI for personalized learning experiences. The study analyzes the effectiveness of integrating ICT in ELT by examining how pedagogical approaches like GTM, TPR, Student-Centered Learning, Total Communication, and Interactive Approaches impact learning experiences, engagement, and digital literacy skills among 450 students from grades 6 to 12, divided into three grade levels (6–8, 9–10, and 11–12). The study uses a survey methodology with structured questionnaires and open-ended questions to collect

quantitative and qualitative data on students' perceptions, experiences, and preferences regarding ICT integration in various teaching methodologies, assessing engagement, effectiveness, digital literacy, and learning outcomes. The collected data is analyzed using both quantitative methods, including descriptive statistics, cross-tabulation, and ANOVA to identify patterns and correlations, and qualitative methods, where open-ended responses are coded and thematically analyzed to gain insights into student experiences, providing a comprehensive understanding of how ICT integration in ELT influences pedagogy, teaching effectiveness, and learning outcomes. It helps to enhance ELT by implementing innovative pedagogical approaches with the support of ICT. The present study revises the Technology Acceptance Model (TAM) including the Grammar Transaction Method, Total Physical Response (TPR), Student-Centred Learning, Total Communication and Interactive Approaches. Pedagogy and Education in ELT using ICT enhances teaching effectiveness and engagement, fostering digital literacy and language proficiency among learners. The study is limited by the varying levels of ICT proficiency among teachers, potential biases in self-reported data from participants, and the lack of longitudinal analysis to fully assess the long-term impact of ICT integration in ELT. This should focus more clearly on the study's primary objective: analyzing ICT integration in ELT, its impact on pedagogy, and enhancing student engagement and digital literacy. The Future scope of Pedagogy and Education in ELT using ICT includes the integration of simulated authenticity and artificial intelligence to create immersive and personalized learning experiences, enabling students to enhance their language learning skills more interactively and engagingly.

Sidorkin, A. M. (2025). **Educating AI: A Case against Non-originary Anthropomorphism**. *Educational Theory*, *75*(4), 720-738. https://doi.org/10.1111/edth.70027
The debate over halting artificial intelligence (AI) development stems from fears of malicious exploitation and potential emergence of destructive autonomous AI. While acknowledging the former concern, this paper argues the latter is exaggerated. True AI autonomy requires education inherently tied to ethics, making fully autonomous AI potentially safer than current semi-intelligent, enslaved versions. The paper introduces "non-originary anthropomorphism"—mistakenly viewing AI as resembling an individual human rather than humanity's collective culture. This error leads to overestimating AI's potential for malevolence. Unlike humans, AI lacks bodily desires driving aggression or domination. Additionally, AI's evolution cultivates knowledge-seeking behaviors that make human collaboration valuable. Three key arguments support benevolent autonomous AI: ethics being pragmatically inseparable from learning; absence of somatic roots for malevolence; and pragmatic value humans provide as diverse data sources. Rather than halting AI development, accelerating creation of fully autonomous, ethical AI while preventing monopolistic control through diverse ecosystems represents the optimal approach.

Silvola, A., Kajamaa, A., Merikko, J., & Muukkonen, H. (2025). **AI-mediated sensemaking in higher education students' learning processes: Tensions, sensemaking practices, and AI-assigned purposes**. *British Journal of Educational Technology*, *56*(5), 2001-2018. https://doi.org/10.1111/bjet.13606
Despite a proliferation of research on generative artificial intelligence (GenAI) and its applications in higher education (HE), our understanding of the transformative processes where students create productive and ethically grounded uses of GenAI and how AI mediates students' sensemaking is still limited. Based on an empirical investigation of

bachelor's degree students from educational sciences (N = 22) carrying out an inquiry-based course assignment, we analysed students' reflective essays to explore how GenAI mediated their sensemaking throughout the academic writing process. We selected an abductive analysis as the main approach to examine the AI-mediated construction of new understanding. Cross-tabulation analysis complemented qualitative analysis, addressing differences in AI-mediated sensemaking processes based on students' age. Our findings capture a multidimensional constellation of AI-mediated sensemaking processes. We found three central dynamics that guided students' sensemaking process: assessing and adapting the textual characteristics of AI-mediated writing, adjusting and improving interactions with GenAI, and contextualising AI-mediated academic writing experiences around everyday study practices. The tensions and ambiguities highlighted the ethical aspects of adopting AI-mediated academic writing practices, although students did not overcome all of these tensions during their sensemaking processes. Our study contributes theoretically by developing the notion of an AI-mediated sensemaking approach, therefore adding to existing understanding about the dialogical trajectories of AI-mediated writing processes through which students create new meanings and understandings of GenAI use as a learning resource. Further, we discuss the collective aspects of AI-mediated sensemaking.

Song, Q., Li, M., Zhang, Z., & Zhou, Q. (2025). **Learning effectiveness of virtual technologies in chemistry using a three-level meta-analysis**. *Education and Information Technologies*, *30*(11), 14737-14759. https://doi.org/10.1007/s10639-025-13321-1
Chemistry is a natural science that explores the composition, structure, and transformations of matter. Technological innovations have transformed both teaching methods and learning processes. To explore the transformative potential of virtual technologies in chemistry education, this study conducted a meta-analysis to assess their impact on student learning effectiveness. Through literature search and screening, 29 studies were obtained, including 63 effect sizes and 3,347 participants. Due to the presence of multiple effect sizes in some studies, a three-level meta-analysis model was constructed. The results show that virtual technologies have a moderate positive effect on chemistry learning (g = 0.385, 95% CI [0.138,0.632]), indicating their significant impact on improving student learning outcomes in chemistry. These studies were also coded to examine the moderating effects of their characteristics (virtual form, educational stage, learning content, student grouping, and control group treatment) on outcome measures. The moderation analysis results reveal that the educational stage significantly moderates the effectiveness of virtual technologies, with secondary school students benefiting more than university students. While other moderating variables, such as virtual form (e.g., AR showing higher effectiveness), learning content (e.g., inorganic chemistry outperforming), student grouping (e.g., small groups of 2–4 students performing better), and control group treatment (e.g., virtual technologies demonstrating greater effectiveness compared to traditional instruction), were not significant, their observed trends suggest potential variations that warrant further investigation. These findings offer valuable guidance for integrating virtual technologies into chemistry education.

Sorin, F. (2025). **Porter attention aux usages numériques des personnes accompagnées : L'exemple des éducateurs et éducatrices dans le cadre de la protection de l'enfance**. *Agora débats/jeunesses*, *100*(2), 102-116. https://doi.org/10.3917/agora.100.0102
Une étude de cas située dans le champ de la protection de l'enfance permet de décrire la variété des motifs et des registres de l'accompagnement numérique, compris comme

l'agir – ou les velléités d'agir – des éducateurs et des éducatrices sur les trajectoires d'usage numériques des jeunes accueilli·es en maison d'enfants ou accompagnés en milieu ouvert. L'article présente les tensions pratiques et éthiques que comporte l'extension de l'accompagnement éducatif aux instances sociotechniques, et explore les différentes dimensions – personnelle, professionnelle, situationnelle et relationnelle – qui concourent à la mise en œuvre de l'accompagnement numérique au sein des équipes éducatives.

Stan, M. M., Dumitru, C., & Bucuroiu, F. (2025). **Investigating teachers' attitude toward integration of ChatGPT in language teaching and learning in higher education**. *Education and Information Technologies*, *30*(11), 15281-15298. https://doi.org/10.1007/s10639-025-13396-w
Understanding teachers' perspectives is essential for successful technology adoption as technology plays an increasingly important role in education. The aim of this study is to explore the nuanced dynamics of using natural language processing models such as ChatGPT in higher education settings. Understanding the complexity of teachers' attitudes is crucial for the creation of supportive environments that enable them to embrace technology as a meaningful enhancement to language teaching. While chatbots have gained popularity in various fields, such as tourism and medicine, their use in the higher education sector, especially in Romanian universities, has not yet been sufficiently explored. The study consisted of a focus group with 15 teachers. This led to qualitative findings with practical implications for language teaching. The benefits of incorporating ChatGPT into language teaching, such as immediate correction, real-time practice and continuous learning, were found to have a positive impact on learning outcomes. In addition, the teachers found ChatGPT to be a valuable tool for organizing their work, providing an efficient means of managing language tasks and assessments, and contributing to a more efficient classroom process.

Sun, Zhennan, Pang, M., & Zhang, Y. (2025). **Exploring learning preferences evolution influence factors: A non-mutually exclusive 3-state cellular automata analysis model**. *Education and Information Technologies*, *30*(12), 17049-17077. https://doi.org/10.1007/s10639-025-13345-7
The evolution of individual and global learning preferences is influenced by correlation factors. This study introduces a novel evolutionary modeling approach to observe and analyze factors that affect the evolution of learning preferences. The influencing factors considered in this study are closely interwoven with the underlying personality of the students, individual traits, learning partners and interactions. This paper proposed non-mutually exclusive 3-state cellular automata evolution model that improves on previous approaches to study the evolution of learned preferences by overcoming the limitations of data acquisition through self-reported measurements or behavioral observations in a controlled environment. The experimental data is a large sample generated from the initial seed by the synthetic minority over-sampling technique (SMOTE) method. The seeds were derived from survey responses provided by 38 participants. The results demonstrate the varying degrees of influence of factors such as membership ratio, group size, membership distribution, and learning environment on the process and outcome of group preference evolution. The findings provide valuable insights into understanding how learning preferences evolve and how educators adapt to the learning environment. Furthermore, educators meeting the diverse learning preferences of students, that is,

education that adapts to the dynamic demands of students, echoes the current educational trends of personalization and AI-driven learning.

Sun, Zhuo, Lim, M. A., & Cockayne, H. (2025). **Reputation Management in a Chinese and UK University: What Do Universities' Self-Representations Through Social Media to Governments and International Students Say About Their Resource Dependence?** *Higher Education Quarterly*, *79*(3), e70040. https://doi.org/10.1111/hequ.70040
This study discusses the relationships between resource dependence, and reputation management (RM) through interviews with university managers regarding the use of social media by Chinese and UK Higher Education Institutions (HEIs). This research enriches existing literature by providing a new and comprehensive understanding of the factors influencing university communication and reputational behaviour through the lens of Resource Dependence Theory (RDT) post COVID-19. The recruitment of international students in the chosen UK and Chinese HEIs is intricately tied to securing resources—but that these resources were valued differently at the case study HEIs. Nineteen interviews were conducted across the case universities and content analysis was employed to explore the perspectives of university managers. Our findings show that the admission of international students responded to the need to acquire legitimatory (in China) and financial resources (in the UK). These results signal an important difference in how international students, as resources, are perceived by these administrators. This insight explains why the UK and Chinese case universities' use of social media, especially after COVID-19, reflected their dependency on non-diversified (China case) and diversified resources (UK case). This insight is significant for policymakers and university staff who manage international student recruitment and also for the critical debate about students as 'resources'.

Sunday, A. O., Agbo, F. J., Suhonen, J., Jormanainen, I., & Tukiainen, M. (2025). **Co-designing to develop computational thinking skills in Nigeria K-12 using scratch**. *Education and Information Technologies*, *30*(11), 14925-14965. https://doi.org/10.1007/s10639-025-13386-y
The need to integrate the teaching and learning of computational thinking (CT) in K-12 education has been on the rise since it was identified as a skill for solving 21st-century problems. The co-design pedagogical approach has shown great potential in promoting effective communication of CT to both university and K-12 students with the support of different educational tools in different contexts. To ensure Nigerian secondary school (K-12) students develop CT skills, a four-day co-design CT activities workshop was organized. Co-design pedagogy and constructivism theory were deployed in this study with students co-designing COVID-19 disease spread game for learning CT. A mixed method was adopted to investigate student's interest, attitudes, understanding of CT, and their learning experience from implementing CT-based prototype using Scratch. This study recruited 40 students from two different secondary schools in Nigeria as participants. The result revealed that student's interest in learning CT was aroused through the use of co-design pedagogy and Scratch ($\mu = 4.55$, $\sigma = 0.815$). Similarly, students attitude toward CT after the intervention study shows positive ($\mu = 4.50$, $\sigma = 0.716$). This study paved way for student's skills development in teamwork and collaborative learning, communication, idea sharing, personal skill development, game design, and understanding of programming. This study instigates thinking ideation, inspires the application of CT concepts in daily life activities, and improves problem-solving skills. This study promotes and advocates for the application of co-design pedagogy to foster the teaching and

learning of CT in a Nigerian context. This study contributes to knowledge by promoting the use of Scratch as a tool for co-designing in learning CT, proposing a four-phase co-design application flow for the integration of co-design pedagogy with Scratch for learning CT in the Nigerian K-12 context and suggesting ways to implement the teaching and learning of CT in K-12 education.

Sundin, O. (2025). **Navigating media and information literacy in the age of AI: a view from Sweden**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wg
For decades, the Swedish education system has emphasised the importance of evaluating information critically. However, approaches to evaluating information remain analytically underdeveloped. This paper addresses two crucial challenges for schools in preparing young people to navigate conflicting truths in a digital society: what does it mean to be critical of information in a digital infrastructure increasingly shaped by algorithms, datafication, and AI-generated content? How can critical source evaluation be carried out when sources are increasingly difficult to recognise in a digital landscape permeated by AI?

Sung, W., & Thomas, C. L. (2025). **The mediating role of academic help-seeking in the relationship between achievement goals and help-seeking from ChatGPT**. *Social Psychology of Education*, *28*(1), 155. https://doi.org/10.1007/s11218-025-10108-7
Higher education students utilize Open AI tools such as ChatGPT as learning aids when confronted with academic challenges during their learning journey. Prior work has established that adaptive and maladaptive forms of academic help-seeking are closely related to achievement goals, which could lead to different patterns of using ChatGPT as a help-seeking resource. Thus, the study examined the relationship among achievement goals, academic help-seeking goals, and ChatGPT-specific help-seeking goals in higher education. Undergraduate and graduate students completed self-report measures assessing AI tool proficiency, achievement goal orientation, general academic help-seeking goals, ChatGPT help-seeking goals, and perceived ChatGPT risk. A series of mediation analyses was conducted to determine if the relationships between achievement goals and ChatGPT help-seeking outcomes are mediated by general help-seeking goals. Our results revealed that mastery approach goals were positively related to instrumental help-seeking while negatively related to executive help-seeking, help-seeking threat, and avoidance. Additionally, the relationships between mastery approach goals and executive ChatGPT use, ChatGPT threat, and ChatGPT avoidance were mediated by the associated help-seeking goal construct. The perceived risk of ChatGPT was found to be a significant predictor of executive ChatGPT help-seeking and ChatGPT avoidance. The implications of the study include applicable strategies to promote the healthier adoption of ChatGPT in educational settings.

Tadlaoui-Brahmi, A., Alvarez, L., & Buttier, J.-C. (2025). **L'éducation populaire à la rescousse des institutions pour l'éducation à la citoyenneté numérique ? La nécessité d'un tiers-lieu face aux limites de l'école**. *Tréma*, (63). https://doi.org/10.4000/13r54
Cet article interroge les limites inhérentes au cadre scolaire institutionnel face aux finalités de l'éducation à la citoyenneté numérique (CN). S'appuyant sur trois communautés de pratiques menées auprès d'enseignant·es du primaire, notre analyse met en lumière les contraintes structurelles qui limitent la capacité de l'école, et celle de ses représentant·es, à appréhender pleinement la diversité des pratiques de CN. Dans ce

contexte, les principes fondamentaux de l'« éducation populaire politique », tels que conceptualisés par Morvan (2011), émergent comme une voie prometteuse de dépassement. Cette approche, inscrite dans des enjeux d'émancipation et de participation active, constitue un cadre favorable à une réflexion critique sur les modes d'apprentissage de la CN. À cet égard, notre discussion suggère le recours aux tiers-lieux, définis comme espaces d'expérimentation pédagogique et formalisés hors des injonctions institutionnelles. En définitive, cet article vise à nourrir la réflexion sur les limites des circuits éducatifs institutionnalisés, dans le but de mieux répondre aux enjeux d'une CN critique et engagée, sous réserve que cet objectif soit effectivement poursuivi.

Tan, M. X. Y., Qu, Y., & Wang, J. (2025). **Student Perceptions of Generative Artificial Intelligence Regulations: A Mixed-Methods Study of Higher Education in Singapore**. *Higher Education Quarterly*, *79*(3), e70038. https://doi.org/10.1111/hequ.70038
The rapid adoption of generative artificial intelligence (GenAI) in higher education has raised questions about student use, academic integrity, and institutional regulation. This study examines students' perceptions of and compliance with GenAI regulations in higher education, using a Singaporean university as a case study. Adopting a mixed-methods approach, the research combines thematic analysis of survey responses and quantitative modelling based on the Theory of Planned Behaviour. Qualitative results reveal that students value GenAI for its learning support, time efficiency, and advanced capabilities, yet emphasise the need for clearer guidelines and improved education on appropriate usage. Quantitative analysis highlights the positive influence of guideline understanding on compliance and declaration honesty but notes the negative impacts of perceived restrictiveness and increased GenAI experience. Faculty influence promotes compliance but minimally affects honesty, indicating the need for distinct strategies to address visible and ethical adherence. This research underscores the importance of balanced, flexible regulatory frameworks that integrate educational clarity and faculty engagement, advancing the discourse on GenAI governance in higher education.

Tanchuk, N. J. (2025). **Deep ASI Literacy: Educating for Alignment with Artificial Super Intelligent Systems**. *Educational Theory*, *75*(4), 739-764. https://doi.org/10.1111/edth.70030
Artificial intelligence companies and researchers are currently working to create Artificial Superintelligence (ASI): AI systems that significantly exceed human problem-solving speed, power, and precision across the full range of human solvable problems. Some have claimed that achieving ASI — for better or worse — would be the most significant event in human history and the last problem humanity would need to solve. In this essay Nicolas Tanchuk argues that current AI literacy frameworks and educational practices are inadequate for equipping the democratic public to deliberate about ASI design and to assess the existential risks of such technologies. He proposes that a systematic educational effort toward what he calls "Deep ASI Literacy" is needed to democratically evaluate possible ASI futures. Deep ASI Literacy integrates traditional AI literacy approaches with a deeper analysis of the axiological, epistemic, and ontological questions that are endemic to defining and risk-assessing pathways to ASI. Tanchuk concludes by recommending research aimed at identifying the assets and needs of educators across educational systems to advance Deep ASI Literacy.

Tarannum, Tasnia, Ahmed, R., Seraj, P. M. I., & Khan, T. S. (2025). **ELT Teachers' perception and usage of ChatGPT as a teaching tool in the Bangladeshi EFL context**. *Education and Information Technologies*, *30*(13), 19269-19295. https://doi.org/10.1007/s10639-025-13515-7

ChatGPT, developed by OpenAI, is the most buzzing word in academia recently. Due to its ability to provide instant language support and generate diverse educational resources, it has emerged as a powerful tool in ELT (English language teaching). This study aims to explore ELT teachers' perception and usage of ChatGPT as a teaching tool in the Bangladeshi EFL context. To do this, a concurrent mixed-method research design was employed using interviews and a survey questionnaire. 54 ELT teachers for the survey questionnaire, and 7 teachers interviewed participated from the department of English from 5 different private universities in Bangladesh. The results revealed that ELT teachers used ChatGPT for generating practice tasks, preparing question materials for quizzes or examinations, and providing automated feedback. The teachers highlighted several benefits, such as saving time, having unlimited resources, and easy accessibility, while they noted students' overdependence and plagiarism, misinterpreted instruction, faulty information, and similar and repetitive structure and language as the potential drawbacks. The teachers opined that for using ChatGPT both teachers and students need proper training and ethical awareness. The findings bring forth valuable insights for teachers, students, and policymakers.

Tarannum, Tasnim, Moniea, H. M., Sarah, M. K., & Miah, M. K. (2025). **Internet usage patterns and academic performance: A comparative study of public and private university students in Bangladesh**. *Education and Information Technologies*, *30*(13), 18397-18431. https://doi.org/10.1007/s10639-025-13502-y

This study investigates the impact of internet use on the academic performance, behavior and perceived learning of university students in Bangladesh. The sample size was determined using Slovin's formula, with data collected via convenience sampling from 523 current undergraduate and postgraduate university students in Bangladesh. The responses were analyzed using the statistical tools SPSS version 26 and AMOS graphics. The structural equation model identified four domains associated with students' internet usage: internet browsing, streaming entertainment, social networking, and online gaming and their effects on academic performance. The findings suggest that online gaming ($\beta = -2.56$, $P < .05$) and internet browsing ($\beta = -4.35$, $P < .05$) were negatively and significantly associated with academic performance. Conversely, streaming entertainment showed a positive and significant association ($\beta = 3.89$, $P < .05$) while the domain of social networking exhibited a positive but insignificant association ($\beta = 1.36$, $P > 0.05$) with academic performance. The research further analyzed the effect of external factors (types of universities, parental involvement, and socioeconomic factors) on the relationship between internet usage and academic performance. Furthermore, the results revealed that the type of university moderates the relationship between internet use and academic performance. The current research might provide empirical insights into the long-term educational implications of the internet and assist educators and academic administrators in creating efficient methods and regulations. Finally, the impact of various internet platforms on academic performance could potentially be captured through subsequent longitudinal studies that emphasize intercultural comparisons between advanced and developing nations.

Taşkın, N., & Kokoç, M. (2025). **Behavioural engagement, academic dishonesty, and performance gaps: Comparing online and paper–pencil based tests in an online learning context**. *Education and Information Technologies*, *30*(13), 18895-18919. https://doi.org/10.1007/s10639-025-13514-8
This study examines the growing issue of academic dishonesty in online assessments, a challenge intensified by the expansion of digital learning platforms. Specifically, it investigates the relationship between students' online engagement and their performance in online versus traditional paper-and-pencil tests. Employing a cross-sectional research design, data were collected from 1,022 students across various faculties at a state university. Regression analysis revealed that behavioural engagement significantly predicted performance in paper–pencil tests but not in online assessments. Moreover, students scored higher in online tests, yet the weak correlation between scores across both formats raises concerns about the validity of online assessments in accurately reflecting student learning. These findings underscore the necessity of enhancing online assessment integrity and leveraging engagement metrics to prevent academic dishonesty. The study suggests that educators, policymakers, and administrators should consider student engagement as a key factor in fostering a culture of academic honesty while supporting students' academic performance.

Tekcan, Z. Ş., Geçer, A., & Topal, A. D. (2025). **An investigation of the factors affecting faculty members' readiness for online teaching using chi-squared automatic interaction detection (CHAID) analysis**. *International Review of Education*, *71*(4), 655-683. https://doi.org/10.1007/s11159-025-10139-4
In order to plan and conduct more effective and efficient online teaching studies, it is important to determine how ready faculty members are for online teaching, what they can contribute to online teaching studies, and what their perspectives on online teaching are. In this study, the readiness of faculty members who teach distance education courses towards online teaching was analysed using chi-squared automatic interaction detection (CHAID) or "decision tree" analysis. This research is descriptive in nature. The authors used a "survey model" to determine the readiness of faculty members towards distance education. Participants comprised a total of 133 faculty members with different titles who taught distance education courses at a state university in Türkiye in the 2020–2021 academic year. The research showed that the faculty members' ability to use technology in online teaching was very high, their perceptions of online teaching were at a moderate level, and their perceptions of social bonding and student engagement were positive. Increased access to web resources reduced the need for help, and those who used learning management systems (LMS) in face-to-face education could more easily transfer these skills to online exams. This had a positive effect on faculty members' perceptions of online teaching. Conversely, faculty members who had no previous online teaching experience tended to perceive it more negatively. This study is important because it sheds light on the factors affecting faculty members' readiness for distance education. The results of this study suggest that an online learning environment that takes into account faculty members' circumstances and makes the necessary preliminary preparations is likely to increase the success and quality of their contributions to online learning.

Teke, N., & Baş, T. (2025). **Early Literacy Skills in Digital Games**. *European Journal of Education*, *60*(3), e70173. https://doi.org/10.1111/ejed.70173

Early literacy skills, the basis of literacy skills, can be introduced to children through various stimuli and are supported by digital games with the increasing use of technology. This study aims to investigate the games children can download from the Play Store, which has high accessibility and allows them to play offline many times, regarding early literacy skills. In this context, 183 digital games for children that can be played offline were identified in the Play Store. The download rates of these games were analysed, and the 30 digital games with the highest number of downloads (games with over 50 million downloads) were identified, and these games were downloaded and played. Then, the researchers created the 'Early Literacy Skills in Digital Games Evaluation Form' to examine the games' early literacy skills. These games were analysed using a content analysis method. As a result of the analysis, it was found that the least common early literacy skills in digital games were alphabet knowledge and phonological awareness. The most common early literacy skills were print awareness (limited to sentences and instructions in the games and object naming) and listening comprehension skills. Receptive vocabulary was the most common early literacy skill in the digital games analysed. In addition, no activity to support expressive vocabulary knowledge was found in any of the games analysed. This research assesses the role of digital games in early literacy and provides insights for improving educational technology and game design.

Tilak, S., Gumpert, M., & Myers, T. A. (2025). **Effects of technology-mediated professional development on special education teacher collective efficacy**. *Education and Information Technologies*, *30*(12), 16487-16513. https://doi.org/10.1007/s10639-025-13432-9

This mixed methods study investigates whether technology mediated collaborative practices during a professional development (PD) session led to growth in the collective efficacy of 21 special education teachers at an independent 1–12 school in Southeastern Virginia. This school specializes in individualized instruction for students with learning differences not limited to Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, Specific Learning Disability, and their comorbidities. Teacher collective efficacy, which subsumes cohesive perceptions of classroom learning and behavior management, has been shown as strongly related to student achievement and healthy school culture. Mastery experiences with specific tasks related to teaching and learning can spur collective efficacy. Cutting-edge technologies (Vibe and Newline collaborative all-in-one hardware and software interfaces) were used to engage teachers in an interdisciplinary vision boarding activity to outline academic, social, and technological goals within and across subject areas. Teachers also engaged in a behavior management reflection exercise. Pre- and post-survey analysis was conducted using a paired samples t-test, showing overall growth in collective efficacy after the brief PD session. Regression analyses revealed that technology savvy teachers grew most in collective efficacy. Network analysis of vision board output and a descriptive analysis of the behavior management surveys showed that teachers became united in interdisciplinary goals for learning, and in strategies for behavior management through conversational practices.

Tlili, A. (2025). **Artificial intelligence in Higher Education in China: policy, case study, and challenges**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vq

This paper aims to describe the national policies related to Artificial Intelligence in Education (AIED) in China. It then presents an innovative case study on the use of AI in

teaching and learning, focusing on Peking University's Intelligent Teaching Platform, PKU Wenxue. Finally, this study concludes by presenting the challenges faced in implementing and using this platform, namely data integration and unification, overcoming resistance to change, multilingual support, curriculum integration, performance, security and privacy, and reducing costs.

Tremblay, C., Miklohoun, S., & Poellhuber, B. (2025). **Recension des usages d'intelligences artificielles génératives (IAg) pour offrir de la rétroaction en enseignement supérieur**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-11
L'intelligence artificielle générative (IAg) connaît actuellement un essor sans précédent en éducation. Parmi les potentialités de l'IAg pour favoriser l'apprentissage étudiant en enseignement supérieur, on retrouve sa capacité à fournir une rétroaction personnalisée. Pour comprendre l'état de la recherche actuelle, cet examen de la portée synthétise les recherches traitant de l'usage d'IAg pour fournir de la rétroaction sur une production étudiante. Les résultats montrent une variété d'IAg utilisées et les caractéristiques des rétroactions. La discussion souligne le besoin de mieux documenter les approches conceptuelles mobilisées pour concevoir les IAg afin de favoriser la compréhension des études et le transfert des connaissances.

Trespeuch, M., Verley, É., & Tenret, É. (2025). **L'individualisation de la relation d'emploi à l'heure numérique : le cas des étudiant·es sur les plateformes affinitaires**. *Agora débats/jeunesses*, *100*(2), 67-84. https://doi.org/10.3917/agora.100.0067
À partir de l'exploitation des données d'une enquête mixte, cet article interroge les usages que font les étudiant·es des plateformes affinitaires pour trouver un travail pendant leurs études. Il montre que ces plateformes contribuent à l'individualisation de la relation d'emploi, à plusieurs titres. D'un côté, elles nécessitent un travail invisible de marketing de soi et d'appropriation de l'algorithme de la part des étudiant·es ; de l'autre, elles permettent un « choix », plus ou moins libre de l'employeur de la part des étudiant·es, ainsi qu'une gestion interindividuelle de la relation d'emploi. Cette individualisation, liée aux métiers de services à la personne surreprésentés sur ce type de plateformes, attire un public plus féminisé et plus favorisé, avec une liberté de choix qui dépend fortement des caractéristiques sociales des étudiant·es, dessinant sur internet un marché des jobs à deux vitesses.

Ünal, D., Erdem, Z. Ç., & Şahin, Z. G. (2025). **Will artificial intelligence succeed in passing this test? Creating an achievement test utilizing ChatGPT**. *Education and Information Technologies*, *30*(12), 17263-17287. https://doi.org/10.1007/s10639-025-13461-4
ChatGPT, an artificial intelligence powered chat tool that accomplishes essential work with its language understanding and text generation capabilities, has started to benefit education and many other areas with new updates. This study predicted the ability to create a number sense achievement test with ChatGPT version 3.5. It showed that the test created in the study to determine the limits of artificial intelligence was a valid test with a single-factor structure and, simultaneously, a highly reliable test. Because the test designed based on the five-factor reference test was gathered under a single factor, ChatGPT was less functional in questions involving shapes, and the deficiencies detected in the interventions made while writing questions showed that some aspects of ChatGPT needed improvement. Identifying the shortcomings and limits of artificial intelligence is

essential for its development. Although this development brings ethical violations, it is evident that avoiding this development is impossible.

Urban, M., Brom, C., Lukavský, J., Děchtěrenko, F., Hein, V., Svacha, F., … Urban, K. (2025). **"ChatGPT can make mistakes. Check important info." Epistemic beliefs and metacognitive accuracy in students' integration of ChatGPT content into academic writing**. *British Journal of Educational Technology*, *56*(5), 1897-1918. https://doi.org/10.1111/bjet.13591

Recent studies have conceptualized ChatGPT as an epistemic authority; however, no research has yet examined how epistemic beliefs and metacognitive accuracy affect students' actual use of ChatGPT-generated content, which often contains factual inaccuracies. Therefore, the present experimental study aimed to examine how university students integrate correct and incorrect information from expert-written and ChatGPT-generated articles when writing independently (N = 49) or with ChatGPT assistance (N = 49). Students working with ChatGPT-4o integrated more correct information from both expert-written (d = 0.64) and ChatGPT-generated articles (d = 0.95), but ChatGPT-assisted writing did not affect the amount of incorrect information sourced from the ChatGPT-generated article. Regardless of the condition, hierarchical regressions revealed that lower metacognitive bias was moderately associated with increased inclusion of correct information from the expert-written article (R2 = 12%). Conversely, a higher metacognitive bias (R2 = 10%) and epistemic beliefs (R2 = 12%) were moderately related to the inclusion of incorrect information from ChatGPT-generated articles. These findings suggest that while ChatGPT assistance enhances the integration of correct human- and AI-generated content, metacognitive skills remain essential to mitigate the risks of incorporating incorrect AI-generated information. Practitioner notes What is already known about this topic Generative AI tools, such as ChatGPT, are increasingly regarded as epistemic authorities due to their authoritative tone and human-like interaction. ChatGPT has demonstrated utility in providing correct information and improving productivity in educational and professional contexts, but it is also prone to inaccuracies, hallucinations and misleading content. Students' epistemic beliefs and metacognitive skills predict their ability to critically evaluate and integrate conflicting information from multiple resources, particularly when searching for information on the Internet. What this paper adds This study experimentally examines how students integrate correct and incorrect information from expert-written and ChatGPT-generated articles when writing independently or with ChatGPT's assistance. The findings show that ChatGPT assistance improves the inclusion of correct information but does not significantly reduce or increase the inclusion of incorrect ChatGPT-generated content. Metacognitive accuracy and epistemic beliefs are key factors in mitigating the inclusion of incorrect information, regardless of whether students work independently or with ChatGPT. Implications for practice and/or policy Generative AI tools can outperform human experts in specific scenarios, requiring little to no evaluation. However, in situations where these tools generate misleading or incorrect content, the application of metacognitive skills and epistemic beliefs becomes essential to discern reliable information and avoid the integration of errors. Educational interventions should include activities requiring justification of knowledge, evaluation of resources and reflection upon human-generated and AI-generated texts to enhance students' ability to discern accurate from inaccurate information. Interventions focused on metacognitive accuracy and epistemic awareness can empower individuals to critically evaluate and differentiate between reliable and erroneous information, enhancing their recognition of misinformation.

Uyanik, G. (2025). **The Use of Technology in Primary School Science Education From 1974 to 2025: A Bibliometric Analysis**. *European Journal of Education*, *60*(3), e70156. https://doi.org/10.1111/ejed.70156
This study presents a bibliometric analysis of 1995 peer-reviewed articles on the use of technology in primary science education published in the Web of Science between 1974 and April 2025. It explores publication trends, citation structures, author collaborations, thematic patterns, and international networks. Results show an annual average of 39.11 publications with 17.04 citations per article. A total of 5361 authors contributed, with 83.7% involved in co-authored works, highlighting the field's interdisciplinary nature. Thematic analyses indicate a shift after 2020 towards pedagogical, psychological, and sociocultural focuses, with increasing interest in augmented reality, AI-based adaptive systems, and gamification. Additionally, pedagogical dimensions such as student motivation, teacher competencies, and learning design have gained attention. The study emphasises that technology should be integrated as a theoretically grounded and context-sensitive process rather than merely a tool. It offers a comprehensive outlook and thematic recommendations to guide future research in the field.

Vasconcelos, L., Arslan-Ari, I., Miller, B., & Gonzalez-Tapia, R. (2025). **Robotics in early childhood STEM education (REC-STEMEd): The impact on preservice teachers' attitudes and intentions toward computational thinking**. *Education and Information Technologies*, *30*(13), 18347-18374. https://doi.org/10.1007/s10639-025-13529-1
There is a large disconnect between the increasing need for computer science education in K-12 schools and the preservice teacher training provided. Consequently, preservice teachers may graduate feeling unprepared to infuse computer science concepts such as computational thinking (CT) into their teaching. To address this, we created Robotics in Early Childhood STEM Education (REC-STEMEd), a module that infuses computational thinking, robotics, and science content into an early childhood teacher education methods course. This study investigated changes in early childhood preservice teachers' (n = 39) attitudes toward learning to teach CT and their intentions to teach CT. Findings revealed a statistically significant increase in participants' positive affection and positive cognition, and a significant decrease in negative cognition toward learning to teach CT. A moderate but not significant decrease was found in their negative cognition. Moreover, participants reported moderately positive attitudes, subjective norms, perceived behavioral control, and intentions toward teaching CT in the future.

Verpoorten, D., Delfosse, C., Doppagne, V., & Schoenaers, F. (2025). **Perceptions de l'IA à l'université : une enquête sur les outils, pratiques et postures pédagogiques**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-09
L'article rend compte des réponses de 404 enseignants et enseignantes d'une université francophone belge à un questionnaire portant sur l'entrée de l'intelligence artificielle dans leurs pratiques. L'enquête montre qu'il s'agit bien d'un phénomène total, car il ébranle plusieurs dimensions pédagogiques, génère à leur sujet des positionnements contrastés et se répercute de façon similaire dans les trois secteurs disciplinaires dont sont issues les personnes répondantes.

Voultsiou, E., & Moussiades, L. (2025). **A systematic review of AI, VR, and LLM applications in special education: Opportunities, challenges, and future directions**. *Education and*

Information Technologies, *30*(13), 19141-19181. https://doi.org/10.1007/s10639-025-13550-4
The rapid advancements in modern technologies have opened new possibilities for enhancing educational experiences for students with Special Educational Needs and Disabilities (SEND). This paper conducts a systematic review of 139 studies on the integration of AI, VR, and LLMs in Special Education. Using a deductive thematic analysis framework, it identifies key themes and challenges to synthesize the current state of knowledge and propose future research directions. The findings underscore the transformative potential of AI and Immersive Technologies in fostering personalized learning, improving social engagement, and advancing cognitive development among SEND students. Additionally, current SEN methodologies and practices are defined, teachers'attitudes toward inclusion and technology adoption, and the prevailing technological tools utilized, based on various syndromes and disorders. Challenges such as ethical considerations, accessibility barriers, and resource limitations are also discussed. Moreover, this study explores tailored technological tools specifically designed to meet the unique needs of these students. The paper concludes with limitations, recommendations for cross-sector collaboration and inclusive policies to ensure these technologies are effectively utilized to prioritize and enhance learning experiences for SEND students, as well as future directions.

Wang, G., & Bai, H. (2025). **Harnessing the power of distributed leadership: Promoting Chinese teachers' ICT use in instruction through a chain-mediated model of teacher collaboration and ICT self-efficacy**. *Education and Information Technologies*, *30*(13), 18799-18817. https://doi.org/10.1007/s10639-025-13532-6
Principal leadership plays a crucial role in promoting teachers' use of information and communication technology (ICT) in instruction. This study aimed to examine the relationship between principals' distributed leadership and teachers' ICT use in instruction, as well as the mediating role of teacher collaboration and ICT self-efficacy. The study analyzed data from the TALIS 2018 database, which included 2,977 Shanghai junior high school teachers, using PROCESS Model 6 and the bias-corrected percentile Bootstrap method. The results showed that (1) distributed leadership was significantly and positively associated with teacher collaboration, teachers' ICT self-efficacy, and ICT use in instruction. (2) Teacher collaboration and ICT self-efficacy independently mediated the relationship between distributed leadership and teachers' ICT use in instruction. (3) Teacher collaboration and ICT self-efficacy played a chain-mediating role between distributed leadership and teachers' ICT use in instruction. These findings deepen our understanding of the underlying mechanisms through which distributed leadership facilitates teachers' ICT use in instruction. It addresses the theoretical and empirical gaps in the existing literature on the impact of distributed leadership on teachers' ICT use and offers concrete practical suggestions for improving distributed leadership and promoting teachers' effective ICT use.

Wang, H., Wang, C., Chen, Z., Liu, F., Bao, C., & Xu, X. (2025). **Impact of AI-agent-supported collaborative learning on the learning outcomes of University programming courses**. *Education and Information Technologies*, *30*(12), 17717-17749. https://doi.org/10.1007/s10639-025-13487-8
With the rapid development of artificial intelligence technology in the field of education, AI-Agents have shown tremendous potential in collaborative learning. However, traditional Computer-Supported Collaborative Learning (CSCL) methods still have

limitations in addressing the unique demands of programming education. This study proposes an innovative AI-Agent-supported Collaborative Learning (AI-CL) approach, aimed at enhancing students' programming learning experience and effectiveness through intelligent assistance from AI-Agents. The research developed an AI-Agent system based on large language models and employed a quasi-experimental design to investigate the effects of the AI-CL method on students' learning achievement, self-efficacy, cognitive load, and learning interest. The experiment was conducted at a university in Shanghai, recruiting 45 undergraduate students who were randomly assigned to the AI-CL experimental group (n = 24) and the CSCL control group (n = 21). The experimental context was set in an ACM programming competition teaching environment, lasting for 6 weeks with 70-min sessions each week. Results showed that the AI-CL group significantly outperformed the CSCL group in learning achievement, self-efficacy, and learning interest. Regarding cognitive load, the AI-CL group demonstrated significantly lower mental effort compared to the CSCL group, while there was no significant difference in mental load. These findings not only provide new theoretical perspectives for the application of cognitive load theory and self-efficacy theory in AI-assisted learning environments but also offer strong practical guidance for higher education institutions to introduce AI-Agent-assisted collaborative learning models in programming courses.

Wang, J., Chen, S., & Bai, B. (2025). **Cultivating children's online self-regulated learning: the role of parental mediation and support**. *Education and Information Technologies*, *30*(13), 19297-19328. https://doi.org/10.1007/s10639-025-13555-z
With the increasing use of digital technology, more children are engaged in online learning at home, raising questions about how parents can promote their children's online self-regulated learning (SRL). Online self-regulated learners actively manage their learning by setting goals, selecting strategies, assessing progress, and utilizing technological tools and resources for learning. While parents are increasingly responsible for children's online learning at home, research has primarily focused on parental mediation. Parental mediation involves restrictive and active strategies to mitigate risks and promote safe online behaviors. Nevertheless, parental medication that targets at general technology use is far from enough, children also need support from their parents to enhance online SRL skills. Therefore, this study developed a comprehensive framework of parental involvement by integrating parental mediation (i.e., restrictive and active mediation) and support (i.e., environment and resource support, capacity support, and metacognitive support). This study examined the association between parental involvement and children's online SRL. It aimed to investigate how different forms of parental involvement impacted children's technological self-efficacy and perceived usefulness, which in turn influenced their online SRL. Data were collected using purposive stratified sampling, selecting schools from township, county, prefecture-level, and provincial capital cities in China to ensure the generalizability of the findings. All 5 th and 6 th graders in the selected schools were invited to participate. Structural equation modeling revealed that children's online SRL was influenced by both parental mediation and support, each in different ways. Both parental mediation and parental support had direct effects on online SRL. Active mediation, environment and resource support and metacognitive support indirectly influenced SRL through technological self-efficacy and perceived usefulness. The parental involvement framework, scale, and empirical findings have important implications for practice and future research.

Wang, P., & Liu, Y. (2025). **The Role of Technophilia, Positive Experience and Flow in Enhancing Learning Efficiency in AI-Based Music Education: A Self-Determination Theory Approach**. *European Journal of Education*, *60*(3), e70200. https://doi.org/10.1111/ejed.70200
Artificial Intelligence (AI) is transforming music education by providing adaptive learning tools and personalised feedback. However, existing research has primarily focused on technological outcomes, with limited attention to the affective and motivational processes that drive effective AI-assisted music learning. This study aims to examine how technophilia and positive experience influence flow and perceived learning efficiency in AI-based music education. A quantitative survey of 941 music major students was conducted, and Structural Equation Modelling (SEM) was used to test a conceptual model grounded in Self-Determination Theory. The results indicate that both technophilia and positive experience significantly enhance flow and learning efficiency, with flow also serving as a key mediator. These findings underscore the importance of addressing psychological and emotional factors when designing AI-driven music learning environments. This study contributes to the literature by highlighting how learner-centred, emotionally supportive design can foster deeper engagement and improved learning outcomes in AI-supported creative education.

Wang, S., & Wang, Y. (2025). **Language Attitude and GenAI Attitude of Struggling EFL Learners: A Moderated Mediation Model of Enjoyment and Anxiety**. *European Journal of Education*, *60*(3), e70172. https://doi.org/10.1111/ejed.70172
Cognitive and affective factors play crucial roles in shaping learners' attitudes towards generative artificial intelligence (GenAI). However, the synergistic influence of language attitude and emotions, including foreign language enjoyment (FLE) and foreign language classroom anxiety (FLCA) on struggling EFL learners' GenAI attitudes remains underexplored. To bridge this research gap, the present study develops a moderated mediation model using partial least-squares structural equation modelling (PLS-SEM), based on data collected from 294 struggling EFL learners in China and analysed through SmartPLS software. The findings indicate that FLE mediates the relationship between language attitude and GenAI attitude. Additionally, FLCA moderates both the effect of FLE on GenAI attitude and the direct relationship between language attitude and GenAI attitude. On the basis of these findings, pedagogical implications are discussed to help instructors support struggling EFL learners in developing a more positive attitude towards GenAI.

Wang, Xia. (2025). **Integration of AI GPTs in music education and their impact on students' perception and creativity**. *Education and Information Technologies*, *30*(13), 18879-18893. https://doi.org/10.1007/s10639-025-13531-7
The study aims to investigate the impact of ChatGPT on music education by evaluating creativity and perception indicators resulting from AI integration. The research is based on analyzing the effect of AI (ChatGPT) integrated into music education. To this end, a method for implementing the program in piano teaching sessions was developed, grounded in theoretical principles of creativity development according to flow theory, divergent and convergent thinking. The study involved 566 students from a music conservatory. Creativity was assessed using two forms of the Torrance Tests of Creative Thinking (TTCT). At the beginning of the pre-test, both groups demonstrated uniform levels of creativity within the music education process. Analysis of creativity revealed a significant increase in creative skills within the AI-intervention group ($p = 0.000$).

Considering the aim to more precisely determine the impact of recommendation algorithms on queries based on theoretical concepts of creativity development, a correlation was established between the frequency of application of the proposed query approaches and the dynamics of creativity between the pre- and post-tests (r = 0.001). The results indicate notable improvements in creativity within the experimental group; the difference between the control and experimental groups increased to 23.1849, with the experimental group showing a mean of 67.311. Key concerns among students relate to the precise tuning of question-answer algorithms and the training required for effective use of technology for academic and creative development.

Wang, Xiaomei. (2025). **Students' perceptions of automated writing evaluation in autonomous learning**. *Education and Information Technologies*, *30*(11), 14703-14735. https://doi.org/10.1007/s10639-025-13378-y
Automated writing evaluation (AWE) provides an instant and cost-effective alternative to human feedback in assessing student writing, and therefore is widely used as a pedagogical supportive tool in writing instruction. However, studies on how students perceive the usage of AWE as a surrogate writing tutor in out-of-class autonomous learning are rare. This study employs a convergent parallel mixed methods approach to explore how students perceive the effects of an AWE program, iWrite, in autonomous learning context. The subjects of the current study are 146 non-English major undergraduates at a public university in China. The findings indicate that students are overall satisfied with using iWrite as a surrogate writing tutor with minimal human facilitation in autonomous learning. They are willing to make repeated revisions to their writing based on the feedback from the automated writing tutor. The results also suggest that the accessibility of AWE tool in out-of-class use could enhance learner autonomy, as students exhibit increased engagement and improved self-regulation following the 16-week intervention. Students perceive iWrite's language-based feedback very positively, but their perceptions of content-based feedback from iWrite are comparatively negative. Findings have implications for the implementation of AWE in autonomous learning as well as the design of AWE systems in education setting.

Wang, Y., & Kale, U. (2025). **Unplugged activities to support preservice teachers' competence, interest, and utility value on computational thinking: A mixed-method inquiry**. *Education and Information Technologies*, *30*(13), 19075-19109. https://doi.org/10.1007/s10639-025-13552-2
Computational thinking (CT) has been increasingly recognized as a vital skill for fostering students' problem-solving and digital literacy. Preparing and motivating preservice teachers (PSTs) to effectively teach CT is, therefore, essential. Grounded in expectancy-value theory, this mixed methods research explored the impact of a workshop using unplugged activities on PSTs' (N = 39) motivation on CT during a science methods course. The analysis of the responses to the survey items revealed significant improvements in PSTs' competence and interest. The follow-up interviews highlighted that, due to the unplugged activities, PSTs were able to reduce stress, enhance their understanding, and connect CT to daily life, which increased their competence and interest in teaching CT. These findings extend the application of expectancy-value theory by demonstrating how unplugged activities can positively influence PSTs' motivation to teach CT. The study underscores the importance of incorporating accessible, hands-on activities into teacher preparation programs to support PSTs in advancing CT education in classrooms.

Wang, Y.-M., Lin, Y.-C., & Wang, Y.-S. (2025). **Implement internet ethics education: What matters most?** *Education and Information Technologies*, *30*(13), 19213-19244. https://doi.org/10.1007/s10639-025-13521-9
Unethical behaviors on the Internet are increasingly prevalent, causing widespread tangible and intangible harms to society. To address this growing issue, implementing Internet ethics education in higher educational institutions presents a proactive and effective solution to this problem. Understanding the factors that motivate educational institutions to adopt this educational innovation is crucial. This study explores these motivations by integrating innovation diffusion theory with the technology-organization-environment framework, identifying key factors that influence organizational-level intentions to implement Internet ethics education. Data collected from 81 respondents holding a lecturer position or higher were analyzed using partial least squares structural equation modeling. The findings highlight that perceived benefits, compatibility, top management support, and government support significantly and positively affect implementation intentions. These insights provide valuable guidance for educators and policymakers in educational institutions, demonstrating the applicability of the integrated theoretical framework in studying educational innovations and can be extended to other areas of innovation research.

Wiitavaara, B., & Widar, L. (2025). **Challenges and opportunities related to online studies in higher education**. *Education and Information Technologies*, *30*(11), 15001-15026. https://doi.org/10.1007/s10639-025-13406-x
Technological and societal developments have increasingly led to higher education programs and courses being offered online as distance education. This can mean an opportunity to study regardless of time and place and thereby combining work, family life, and studies. However, online distance studies also introduce problems at the societal, organisational and individual levels. Due to the rapid transformation of the higher education system towards a larger share of digitalized courses and programs, one can expect that the related problems will also increase. Thus, the present study aimed to investigate experiences and thoughts about challenges and opportunities related to online studies among second-semester master's students. Data was collected via interviews and analysed using a phenomenographic approach. The analysis revealed increased demands on the student, remote communication and social interaction, and varying conditions for studying from home. The demands on self-leadership, social skills, and digital competence had increased compared to previous campus-based studies at a lower level. These findings pinpoint the importance of taking into consideration student awareness and support regarding self-regulation of study planning, time allocation, and execution of assignments. It also includes teacher awareness of creating a sense of community and avoiding a mere task orientation despite the online context.

Wolf, A. (2025). **Algorithmic Fairness and Educational Justice**. *Educational Theory*, *75*(4), 661-681. https://doi.org/10.1111/edth.70029
Much has been written about how to improve the fairness of AI tools for decision-making but less has been said about how to approach this new field from the perspective of philosophy of education. My goal in this paper is to bring together criteria from the general algorithmic fairness literature with prominent values of justice defended by philosophers of education. Some kinds of fairness criteria appear better suited than others for realizing these values. Considering these criteria for cases of automated decision-making in education reveals that when the aim of justice is equal respect and belonging,

this is best served by using statistical definitions of fairness to constrain decision-making. By contrast, distributive aims of justice are best promoted by thinking of fairness in terms of the intellectual virtues of human decision-makers who use algorithmic tools.

Wu, M. L., & Zhou, Y. (2025). **Strengthening teachers' STEM preparedness through a technology integration online course**. *Education and Information Technologies*, *30*(12), 17191-17206. https://doi.org/10.1007/s10639-025-13479-8
The importance of technology education during teacher preparation and in-service professional development is paramount as it faces the challenge of adequately equipping teachers with sufficient level of STEM preparedness so they would be able to educate our next generation of students effectively in the subject areas of science, technology, engineering, and mathematics. In this quantitative survey study, 59 in-service teachers enrolled in an online summer technology integration course completed a pre and post survey. Finding of the study revealed that after course-taking, no gender difference was found and participating teachers' perceived value of implementing STEM education for K-3 grades increased, teachers' self-efficacy on teaching STEM courses in K-3 grades improved, and teachers' STEM pedagogical knowledge was strengthened. Overall, these teachers' confidence in teaching STEM areas trended upward after taking the online course, rendering them more STEM preparedness in future teaching of these subject areas. Implication of the study included the need for implementing early STEM education in K-3 grades and the continuing necessity to upholster teachers' STEM preparedness through venues of in-service professional development.

Wu, S.-Y., & Su, Y.-S. (2025). **The effect of learning computational thinking skills through educational board games on students' cognitive styles, cognitive behaviors, and learning effectiveness**. *Asia Pacific Education Review*, *26*(3), 655-668. https://doi.org/10.1007/s12564-024-10031-0
Education on computational thinking skills has been a focus in many countries. Previous studies have investigated educational board games based on computational thinking skills. However, there is a lack of research on the cognitive behaviors and cognitive styles promoted by these educational board games. Therefore, in this study, educational board games are adopted as a tool to explore the learning effectiveness and behavioral patterns of students with different cognitive styles. A total of 74 students participated in this study, and the educational board game used was a set of coding poker cards. The results showed that educational board games contribute to students' computational thinking skills, especially regarding operators. For students with different cognitive styles, holist-style students experience greater learning effectiveness when using educational board games than serialist-style students. In addition, it is found that students need to analyze the choices and arrangements of cards while playing educational board games, which improves their thinking in terms of problem solving. Furthermore, through cognitive behaviors, students can use the concepts of computational thinking skills and then achieve the learning goals of computational thinking skills. Finally, suggestions for teaching and future research are proposed based on the results of this study.

Xia, T., Pan, X., Cao, M., & Guo, J. (2025). **An investigation of college students' acceptance of AI-assisted reading tools: An expansion of the TAM and SDT**. *Education and Information Technologies*, *30*(13), 18031-18058. https://doi.org/10.1007/s10639-025-13491-y

Reading provides college students with vital assistance in their efforts to expand their knowledge base. Artificial intelligence (AI)-assisted reading tools have been developed with the aim of improving students' reading efficiency and reading experience. However, the acceptance of such tools and relevant influencing factors remain unknown. This study investigated the factors influencing college students' acceptance of AI-assisted reading tools. An integrative framework consisting of eight variables—perceived social presence (PSE), trust (TR), reading anxiety (RA), perceived usefulness (PU), perceived ease of use (PEOU), perceived competence (PC), perceived autonomy (PA), and behavioral intention (BI)—was constructed with the aim of exploring the effects of these factors on intention to use in this context. The relationships among these variables were analyzed via structural equation modeling (SEM; n = 303). The results indicated that PEOU significantly enhanced college students' behavioral intentions to use AI-assisted reading tools, whereas RA had a significant negative effect on BI. Additionally, an investigation of the relevant mediating paths verified the indirect effects of PSE, TR, PC, and PA on BI. Level of education (undergraduate vs. graduate) had moderating effects on some of these variables. This study provides practical guidance for efforts to use artificial intelligence to facilitate learning among college students; furthermore, this guidance can be generalized by optimizing tool design on the basis of key factors such as RA. The analysis of the variability of these affects across different levels of education can also be extended and applied to other educational fields.

Xiao, F., Zou, E. W., Lin, J., Li, Z., & Yang, D. (2025). **Parent-led vs. AI-guided dialogic reading: Evidence from a randomized controlled trial in children's e-book context**. *British Journal of Educational Technology*, *56*(5), 1784-1813. https://doi.org/10.1111/bjet.13615
Large language model (LLM)-based conversational agents (CAs), with their advanced generative capabilities and human-like conversational interfaces, can serve as reading partners for children during dialogic reading and have shown promise in enhancing children's comprehension and conversational skills. However, there is limited research on the efficacy of LLM-based bilingual CAs in children's language acquisition in English as a Foreign Language (EFL) contexts. This randomized controlled trial study investigated the effectiveness of LLM-powered CAs compared with traditional parent–child shared reading in promoting engagement and improving learning outcomes among children with EFL. An interactive e-book featuring a LLM-powered CA was developed to engage children in dialogic reading through questioning and scaffolding. Sixty-seven children, aged 5 to 8, were randomly assigned to either an experimental (AI-led) group or a control (parent-led) group. The study found that children in the experimental group outperformed the control group in reading comprehension, with comparable benefits in vocabulary acquisition and story retelling, both immediately and in delayed tests. In the meantime, this study unpacks children's different engagement patterns when reading with the CA versus reading with their parents. Children reading with the CA demonstrated higher behavioural engagement and visual attention, while those in the parent-led group showed greater affective engagement and narrative-relevant vocalizations. The findings highlighted insights into the potential of LLM-powered CAs in children's language acquisition and suggested key design implications for developing better CAs for children from multilingual backgrounds.

Xiao, J., Chen, M., Yang, Y., & Liu, M. (2025). **An exploratory multimodal study of the roles of teacher-student interaction and emotion in academic performance in online**

classrooms. *Education and Information Technologies*, *30*(11), 15507-15527. https://doi.org/10.1007/s10639-025-13426-7
Teacher-student interaction is critical for providing learners with support and maintaining effective communication during the teaching process. The online teacher-student interaction mode, has posed challenges to the effectiveness of online classes. However, how to conduct effective interaction in online classes to improve learning outcomes remains unclear. This study used multimodal data analysis of platform behavior and emotional data to investigate the impacts of teacher-student interaction and emotions on students' academic performance in an online classroom setting. Findings indicate that adult learners' interactive behaviors, particularly the number of podium appearances and the number of rewards received, positively affect their quiz performance in real time. Additionally, negative emotion frequency collected within a time window shorter than the entire online class was positively correlated with quiz performance. The preliminary results of this study inspire and guide teachers in understanding classroom dynamics and optimizing the teaching process effectively and promptly.

Xiao, J., Yang, Y., & Li, M. (2025). **Empirical study on the feasibility of hybrid-flexible training model for developing teachers' artificial intelligence competence**. *Education and Information Technologies*, *30*(12), 16835-16860. https://doi.org/10.1007/s10639-025-13460-5
Artificial intelligence (AI) education empowers teachers to enhance the educational process. Although conventional face-to-face or fully online training methods each have their strengths, they do not fully address challenges such as the rapid pace of AI advancements, differences in teachers' ability to grasp AI knowledge, and the need for flexible scheduling. The hybrid-flexible (HyFlex) teaching approach integrates the benefits of both methods and offers new possibilities for AI training for teachers. However, in-depth research on the practical impacts and implementation pathways for this model in AI teacher training is limited. To address this gap, we explored three key questions: (1) how to implement HyFlex in AI teacher training; (2) teachers' engagement and satisfaction in AI training and the corresponding learning outcomes; and (3) how engagement influences teachers' satisfaction and AI competence. Specifically, we developed a HyFlex teacher training model aimed at enhancing teachers' AI competence and evaluated its effectiveness in a practical application. The results indicate that (1) The flexibility of HyFlex resulted in higher teacher engagement in the AI course training process, contributing to higher learning outcomes and higher teacher attitudes towards the HyFlex model. (2) The flexibility of learning styles and times in HyFlex implementation and the reusability of AI learning materials help to accommodate teachers from different educational backgrounds. (3) Emotional engagement significantly influences training satisfaction and AI competence in AI teacher training. This study provides valuable insights for future practical applications in AI teacher training and the dissemination of the HyFlex model.

Xie, L., He, X., & Zhang, H. (2025). **How Can the Diffusion of Digital Education Policies Be Advanced in Regions With Diverse Educational Conditions?—Qualitative Comparative Analysis of Chinese Policy**. *European Journal of Education*, *60*(3), e70188. https://doi.org/10.1111/ejed.70188
Advancing digital education innovation has become a global necessity. Policy innovation serves as both its basic and guiding principle for practical breakthroughs.

Examining the synergistic impact of multiple factors on the diffusion of digital education policies aids in delineating diverse developmental trajectories and offers strategic insights for different regions. This study constructed an index system for K-12 digital education, analysed the policies across China's 31 provinces, and applied fsQCA to uncover the synergistic effect of influencing factors. Collaboration among multiple factors drives the diffusion. Four types of configurations positively influenced the diffusion breadth of policies. Two types of configurations positively influenced the diffusion intensity of policies. In regions with limited educational resources, four factors warrant increased attention: school administrators, government administrators, educational competitive pressures, and the rate of Internet access among households. In advanced regions, the symbiotic relationship between governments and industries can address challenges more effectively.

Xing, W., Song, Y., Li, C., Liu, Z., Zhu, W., & Oh, H. (2025). **Development of a generative AI-powered teachable agent for middle school mathematics learning: A design-based research study**. *British Journal of Educational Technology*, *56*(5), 2043-2077. https://doi.org/10.1111/bjet.13586

This paper reports on a design-based research (DBR) study that aims to devise an artificial intelligence (AI)-powered teachable agent that supports secondary school students' learning-by-teaching practices of mathematics learning content. A long-standing pedagogical practice of learning-by-teaching is powered by a recent advancement of generative AI technologies, yielding our teachable agent called ALTER-Math. This study chronicles one usability testing and three cycles of iterative design and implementation process of ALTER-Math. The three empirical studies involved a total of 320 middle school students and six teachers in authentic classroom settings. The first study was exploratory, focusing on the qualitative feedback from the students and teachers through open-ended surveys, interviews and classroom observations. The second study yielded a medium-high (M = 3.26) quantitative survey result on students' perceived engagement and usability on top of the qualitative findings. Finally, the final study included pre- and post-knowledge tests in a quasi-experimental study design as well as student and teacher interviews. The final study revealed a bigger significant knowledge improvement in students who used ALTER-Math compared to the control group, suggesting a positive impact of AI-powered teachable agents on students' learning. The design implications learned from multiple iterations are discussed to inform the future design of AI-powered learning technologies. Practitioner notes What is already known about this topic Learning-by-teaching is a long-standing effective pedagogical strategy to enhance students' domain knowledge and feelings of responsibility in learning. Various teachable agents have been developed and have demonstrated benefits in students' learning. Generative AI offers the potential to provide naturalistic, contextualised and adaptive conversations. What this paper adds Develops a novel generative AI-powered teachable agent for middle school mathematics learning, called ALTER-Math. Reports the iterative design process involving empirical classroom implementations of ALTER-Math. Reveals a bigger significant improvement in the student's mathematical knowledge after using ALTER-Math, compared to the control group. Implications for practice and/or policy Researchers can be inspired by this design example of a theoretically grounded generative AI learning technology. Educational technology designers could hear the real voices of students and teachers about the generative AI learning technologies. Researchers and educational technology designers could be

directed by the design implications to the future design of AI-powered learning technologies and teachable agents.

Xu, F., Wenhui, K., & Pei, J. (2025). **Exploring the effect of digitization on education: An empirical analysis based on PISA 2022**. *Education and Information Technologies*, *30*(11), 15891-15929. https://doi.org/10.1007/s10639-025-13414-x
Currently, countries all over the world are deeply promoting the digital transformation of education. There is a lack of empirical research on the relationship between education digitization and education effectiveness. This study aims to explore the contribution of education digitization to education effectiveness through empirical research. This study first constructs a theoretical model of the impact of education digitization on education effectiveness based on relevant theories. The original dataset of the 2022 PISA mainly consists of mathematics, reading, and science assessment scores obtained through machine tests or paper assessments and the results of the generic student questionnaire covering multiple measurement dimensions such as ICT familiarity. This study conducted an empirical analysis based on 53,908 data selected from 2022 PISA data. The results show that digitization does not have a significant direct positive effect on educational effectiveness but indirectly affects educational effectiveness by influencing teachers' teaching behavior and students' learning behavior. It is found that teachers' teaching behavior and students' learning behavior respectively play an intermediary role in the influence of digitization on educational effectiveness, but at the same time, teachers' teaching behavior and students' learning behavior also play a chain intermediary role in the influence of digitization on educational effectiveness. This study also shows that grade and gender are important moderating variables of the influence of digitization on educational effectiveness. Based on the research results above, relevant measures can be taken to promote the development of digital transformation of education.

Xu, S., Su, Y., & Liu, K. (2025). **Investigating student engagement with AI-driven feedback in translation revision: A mixed-methods study**. *Education and Information Technologies*, *30*(12), 16969-16995. https://doi.org/10.1007/s10639-025-13457-0
Despite the well-established importance of feedback in education, the application of Artificial Intelligence (AI)-generated feedback, particularly from language models like ChatGPT, remains understudied in translation education. This study investigates the engagement of Master's students in translation with ChatGPT-generated feedback during their revision process. A mixed-methods approach, combining a translation-and-revision experiment with quantitative and qualitative analyses, was employed to examine the feedback, translations before and after revision, the revision process, and student reflections. The results reveal complex interrelations among cognitive, affective, and behavioural dimensions influencing students' engagement with AI feedback and their subsequent revisions. Specifically, the findings indicate that students invested considerable cognitive effort in the revision process, despite finding the feedback comprehensible. Moreover, they exhibited moderate affective satisfaction with the feedback model. Behaviourally, their actions were largely influenced by cognitive and affective factors, although some inconsistencies were observed. This research provides novel insights into the potential applications of AI-generated feedback in translation teaching and opens avenues for further investigation into the integration of AI tools in language teaching settings.

Xu, X., Qiao, L., Cheng, N., Liu, H., & Zhao, W. (2025). **Enhancing self-regulated learning and learning experience in generative AI environments: The critical role of metacognitive support**. *British Journal of Educational Technology*, *56*(5), 1842-1863. https://doi.org/10.1111/bjet.13599

The rapid development of generative artificial intelligence (GenAI) has brought opportunities and new challenges to higher education. Students need a high level of self-regulated learning to adapt to this change. However, it is difficult for students to persist in self-regulation without guidance. Metacognitive support has a significant advantage in enhancing self-regulated learning, but fewer studies have explored the effects of its role in GenAI environments. The purpose of this study was to investigate the impacts of metacognitive support on college students' self-regulated learning and learning experiences in a GenAI environment. A quasi-experiment was designed in which 68 college students were divided into two groups. The experimental group (N = 35) received explicit metacognitive support, while the control group (N = 33) did not receive any metacognitive prompts. The experiment lasted 4 weeks. The study measured students' academic performance, self-regulated learning ability and learning experiences (including cognitive load and technology acceptance). The results indicate that in the GenAI environment, metacognitive support, while not producing significant between-group differences in achievement, enhances students' self-regulated learning abilities particularly in terms of task strategy and self-evaluation, as well as optimizing their learning experience. The study also found that students were at risk of decreasing their level of self-regulated learning if they lacked metacognitive support in the GenAI environment. The conclusion points out that GenAI supports learners to accomplish learning tasks while potentially reducing self-regulated learning effectiveness, and that metacognitive support is key to supporting effective regulation in learners' GenAI environments. This study provides an important theoretical and practical basis for how to better support learners' learning in GenAI environments. Practitioner notes What is already known about this topic SRL is vital for effective learning in digital environments. Generative AI tools, like ChatGPT, can enhance learning but require support. Learners often struggle to apply SRL strategies without guidance. What this paper adds Metacognitive support improves SRL in Generative AI environments. It reduces cognitive load and increases the perceived usefulness of AI tools. Structured support leads to better academic outcomes. Implications for practice and/or policy Teachers should integrate metacognitive support when using AI tools. Teacher training should focus on SRL strategies in tech-rich settings. Policies should promote ethical and effective AI use in education.

Xu, Y., Zhang, Z., & Lai, C. (2025). **Culture-DPACK: A TPACK scale for evaluating Chinese language teachers' perceptions of integrated literacies**. *Education and Information Technologies*, *30*(13), 19329-19361. https://doi.org/10.1007/s10639-025-13538-0

This study introduces the development and validation of the Culture-DPACK scale, a refined assessment tool designed to evaluate Chinese language (CL) teachers' perceptions of their competencies in integrating digital and cultural literacies into their teaching practices. Acknowledging the increasing integration of digital technologies in education, the Culture-DPACK scale addresses the need for a comprehensive framework that captures the interplay of digital, pedagogical, and cultural literacies in language education. Using a mixed-method exploratory sequential design, we collected qualitative data from thematic seminars (n = 91) to inform the initial scale development. Subsequently, a quantitative survey was conducted with 556 CL teachers to validate the

scale. The analysis identified five key dimensions: Intrinsic Knowledge Literacy (IKL), Traditional Pedagogical Literacy (TPL), Digital Literacy (DL), Digital Humanities Pedagogical Literacy (DHPL), and General Cultural Literacy (GCL). Reliability and validity analyses supported the robustness of the scale, with Confirmatory Factor Analysis (CFA) confirming strong model fit. The Culture-DPACK scale provides educators and researchers with a reliable and valid instrument to assess teachers' competencies in integrating disciplinary knowledge, traditional and digital humanities pedagogy, digital skills, and cultural literacy into their instructional practices. Its application provides insights for designing targeted professional development programs and informs instructional strategies, addressing the evolving demands of contemporary education. By examining the interactions among multiple integrated literacies, this study advances educational technology research and supports sustainable teaching practices in digitally and culturally enriched learning environments.

Yakubu, M. N., David, N., & Abubakar, N. H. (2025). **Students' behavioural intention to use content generative AI for learning and research: A UTAUT theoretical perspective**. *Education and Information Technologies*, *30*(13), 17969-17994. https://doi.org/10.1007/s10639-025-13441-8
Generative Artificial Intelligence tools have the potential to impact students learning significantly and positively in several ways. However, the factors responsible for student's behavioural intentions to use these tools are still not fully understood, especially in the context of Nigerian higher education institutions (HEIs). To support students use of Content Generative - Artificial Intelligence (CG-AI) tools for learning and research purposes, it is important that HEI administrators and policy makers understand these factors. Therefore, the purpose of this study is to examine the factors that influence Nigerian students' behavioural intentions to use CG-AI tools for learning and research. Based on structural equation modelling technique, this study uses the unified theory of acceptance and use of technology (UTAUT) to examine the relationship between six constructs and students' behavioural intentions to use CG-AI. Employing a paper-based survey, responses from 289 students in the Department of Computer Science were obtained from a State University in northern Nigeria. A two-step approach (Confirmatory Factor Analysis and Path Analysis) was used to analyse the relationships between both observed and latent variables. The findings showed that three of the factors, performance expectancy ($a = 0.551$, $p < 0.001$), effort expectancy ($a = 0.466$, $p < 0.001$), and social influence ($a = 0.507$, $p < 0.001$) were observed to be determinants of behavioural intentions to use CG-AI tools. Facilitating conditions, perceived risks, and attitude towards technology, on the other hand, showed no significant impact on students' behavioural intention to use CG-AI tools.

Yang, M., Jiang, S., Li, B., Herman, K., Luo, T., Moots, S. C., & Lovett, N. (2025). **Analysing nontraditional students' ChatGPT interaction, engagement, self-efficacy and performance: A mixed-methods approach**. *British Journal of Educational Technology*, *56*(5), 1973-2000. https://doi.org/10.1111/bjet.13588
Generative artificial intelligence brings opportunities and unique challenges to nontraditional higher education students, stemming, in part, from the experience of the digital divide. Providing access and practice is critical to bridge this divide and equip students with needed digital competencies. This mixed-methods study investigated how nontraditional higher education students interact with ChatGPT in multiple courses and examined relationships between ChatGPT interactions, engagement, self-efficacy and

performance. Data were collected from 73 undergraduate and graduate students through chat logs, course reflections and artefacts, surveys and interviews. ChatGPT interactions were analysed using four metrics: prompt number, depth of knowledge (DoK), prompt relevance and originality. Results showed that ChatGPT prompt numbers ($\beta = 0.256$, $p < 0.03$) and engagement ($\beta = 0.267$, $p < 0.05$) significantly predicted performance, while self-efficacy did not. Students' DoK ($r = 0.40$, $p < 0.01$) and prompt relevance ($r = 0.42$, $p < 0.01$) were positively correlated with performance. Text mining analysis identified distinct interaction patterns, with 'strategic inquirers' demonstrating significantly higher performance than 'exploratory inquirers' through more sophisticated follow-up questioning. Qualitative findings revealed that while most students were first-time ChatGPT users who initially showed resistance, they developed growing acceptance. Still, students tended to use ChatGPT sparingly and, even then, as only a starting point for assignments. The study highlights the need for targeted guidance in prompt engineering and AI literacy training to help nontraditional higher education students leverage ChatGPT more effectively for higher-order thinking tasks. Practitioner notes What is already known about this topic Nontraditional students face unique challenges in higher education, such as limited technological literacy and digital access. The emergence of generative AI tools presents both opportunities and challenges for addressing educational disparities. Existing studies on AI implementation predominantly focus on traditional students. What this paper adds Empirical evidence of how nontraditional students interact with ChatGPT through multiple metrics (prompt number, DoK, relevance and originality). Distinct interaction patterns and their relationship to performance outcomes. The relationship among ChatGPT interactions, engagement, self-efficacy and performance. Implications for practice and/or policy Need for explicit instruction in prompt engineering as a critical skill for higher-order thinking. Importance of providing targeted technology training and self-paced learning resources for nontraditional students. Value of developing comprehensive AI literacy training that addresses both tool capabilities and limitations.

Yang, S., & Zhu, S. (2025). **Identifying factors influencing online learning outcomes for middle-school students — a re-examination based on XGBoost and SHAP**. *Education and Information Technologies*, *30*(11), 15071-15094. https://doi.org/10.1007/s10639-025-13405-y

Accurately identifying the factors that influence the online learning of middle-school students is crucial for improving its effectiveness. However, existing studies rarely focus on the factors influencing the learning outcomes of middle-school students, and traditional methods often struggle to identify the nonlinear relationships among those factors. This study aims to fill this gap, exploring the factors influencing online learning outcomes for middle-school students and their nonlinear impacts. Therefore, the study constructed a CIPP (Context, Input, Process, and Product) theoretical framework, and integrated the XGBoost (Extreme Gradient Boosting) and SHAP (SHapley Additive exPlanations) methods to reveal the nonlinear impact of various factors on online learning outcomes and explore the interactive effects between these factors, based on the questionnaire responses of 142,514 middle-school students. The results indicate the following: (1) Affective engagement is a key factor influencing online learning outcomes. (2) The top four factors – affective engagement, social engagement, self-regulation strategy, and teaching presence – show a nonlinear trend from stable to improved online learning outcomes. Meanwhile, information literacy, the fifth key factor, displays a U-shaped nonlinear trend. (3) Both interactions involving affective engagement – one with social

engagement and the other with self-regulation strategy – are beneficial for middle-school students' online learning. This study holds significant value as it has the potential to enhance educational practices, thereby improving student learning experiences and outcomes.

Yang, Y. (2025). **AI-supported L2 vocabulary acquisition–a systematic review from 2015 to 2023**. *Education and Information Technologies*, *30*(13), 17995-18029. https://doi.org/10.1007/s10639-025-13417-8
Vocabulary acquisition is crucial for language learning, yet learners face substantial challenges in memorizing extensive vocabulary. Numerous studies suggest Artificial Intelligence (AI)-based technologies could significantly improve vocabulary acquisition among K-12 learners. Therefore, instructors or teachers must be fully informed of the advantages and disadvantages when integrating different AI apps or programs. The present study provided a systematic review of 30 empirical studies focusing on the use of AI for vocabulary acquisition. Some key findings include: (1) AI-supported L2 vocabulary acquisition (AISVA) research has gained rapid growth over the last decade, with a clear upward trend; (2) Despite AISVA's broad interest across 28 journals, the field shows fragmentation and lacks a unified theoretical framework; (3) The top three most cited in AISVA predominantly employed quantitative methods, concentrate on cognitive learning dimensions with rather innovative theoretical frameworks, and unique research topics; (4) Research methods primarily integrated both qualitative and quantitative approaches, leaning towards a preference for quantitative methodologies, and mainly involved primary and college students; (5) A substantial portion of AISVA applications manifests their roles as "Intelligent Tutors" while the category of "Data-driven Optimizer" has received relatively less attention in research endeavors; (6) Studies emphasize cognitive and affective aspects, with AR and VR emerging as prevalent technologies that are frequently enhanced by AI integration to support vocabulary acquisition. Suggestions and implications for teaching practitioners, language learners, and software engineers were discussed.

Yaojun, R., & Tekwa, K. (2025). **From text to moving image: Evaluating generative artificial intelligence text-to-video models for pre-writing idea generation in language instruction**. *Education and Information Technologies*, *30*(13), 18749-18778. https://doi.org/10.1007/s10639-025-13516-6
Research on using generative artificial intelligence (GenAI) chatbots in learning environments continues to underpin research in and out of academia. However, GenAI text-to-video (T2V) models have not been adequately investigated in academia, mostly due to their novelty. That means their potential to improve learning remains to be determined. This study contributes to bridging this gap by investigating how GenAI T2V models can foster idea generation during brainstorming. The participants are two groups (experiment and control) of college freshmen, with one group presented with AI-generated videos during brainstorming. Data gathered from the participants' screen recordings, individual notes, a questionnaire, and an assessment of brainstormed ideas to determine whether the participants in the experiment group benefited from the background and narrative elements of the AI-generated videos showed that more ideas were generated within a shorter time, and the videos were perceived to be useful and of high quality. Though the findings did not overwhelmingly support an empirically informed case for deploying GenAI T2V models in descriptive writing, they have significant implications for teachers, students, and institutions of higher learning.

Yavuz Temel, G., Barenthien, J., & Padubrin, T. (2025). **Using Jupyter Notebooks as digital assessment tools: An empirical examination of student teachers' attitudes and skills towards digital assessment**. *Education and Information Technologies*, *30*(13), 18621-18650. https://doi.org/10.1007/s10639-025-13507-7
The integration of different technologies for formative assessment activities into the classroom is very important for the effectiveness of learning and teaching processes. This study is an experimental study in which the student teachers designed jupyter notebooks as formative assessment activities for specified aims and subject contents. For this purpose, student teachers were enabled to design various formative assessment activities with various packages that were developed with the open-access programming languages included in the jupyter notebooks and external applications that were integrated into the jupyter notebooks. We measured the differences in student teachers' self-efficacy beliefs and attitudes towards the design of jupyter notebooks for formative activities before and after the implementation with questionnaires. According to the results of the study, we found positive and statistically significant differences in the self-efficacy beliefs and attitudes of student teachers from various disciplines who participated in the seminar. During the practical activities, we observed student teachers' prejudices and concerns about programming. This process was accompanied by their lack of prior knowledge and prejudices about the open source programming. Despite the difficulties in the learning process, the student teachers designed and developed various jupyter notebooks for different formative assessment activities at the end of the semester.

Yi, W., Huang, X., Kuzmin, S., Gerasimov, I., & Luo, Y. (2025). **Seekg: Sentiment analysis for E-Learning evaluation incorporating knowledge graphs**. *Education and Information Technologies*, *30*(12), 16291-16320. https://doi.org/10.1007/s10639-025-13456-1
This study proposes a knowledge graph-based big data analysis model for course quality evaluation, aiming to address issues in online education course evaluations such as semantic bias, grammatical deficiencies, vocabulary limitations, false evaluations, information distortion, and imbalanced evaluation categories. The model incorporates three innovative strategies: topic modeling sentiment scoring, sentiment label correction, and comprehensive course quality evaluation. It extracts topics from massive course data, integrates sentiment labels through knowledge graph embedding, employs optimal classifier sequences for predicting course indicators, and utilizes game theory calculations to obtain global importance values. Experimental results demonstrate that our model outperforms existing methods: compared to XGBoost, accuracy and macro-F1 scores increased by 3.21% and 4.86%, respectively, on the China University MOOC dataset; compared to Naive Bayes, they improved by 4.31% and 3.35% on the Coursera dataset. The model also performed well on imbalanced NetEase Cloud Classroom and Udemy datasets, confirming its generalizability and robustness. This study provides strong technical support for improving online teaching quality and educational decision-making.

Yi, Z., & Siquan, X. (2025). **The Impact of Pre-Service Language Teachers' Basic Psychological Needs on Behavioural Intentions to Utilise Artificial Intelligence (AI) in Teaching: AI Literacy and Self-Efficacy as Mediators**. *European Journal of Education*, *60*(3), e70160. https://doi.org/10.1111/ejed.70160

Grounded in Self-Determination Theory (SDT), this study investigates how pre-service language teachers' psychological needs (autonomy, competence, relevance) influence their behavioural intentions to adopt AI, with AI literacy and self-efficacy as mediators. Structural equation modelling analysis of 562 Chinese pre-service language teachers revealed that satisfaction of psychological needs exerts a substantial and positive effect on behavioural intentions to utilise AI, which is mediated by AI literacy and self-efficacy. In particular, the perceived autonomy, relevance and competence of pre-service teachers are deemed to exert profound influence on AI literacy and AI self-efficacy. The direct effect of autonomy and relevance on behavioural intentions is significant, whereas competence fails to exert a direct influence on behavioural intentions. This suggests that, through AI literacy, the satisfaction of competence can indirectly influence behavioural intentions to employ new technologies such as AI. These findings underscore the necessity of integrating psychological empowerment and technical competence cultivation in AI training programmes, offering actionable insights for fostering AI-integrated language education.

Yılmaz Virlan, A., & Tomak, B. (2025). **AI tools for writing: a Q-method study with Turkish instructors of English**. *Education and Information Technologies*, *30*(12), 16997-17021. https://doi.org/10.1007/s10639-025-13455-2
This research aimed to determine the perspectives of Turkish instructors of English on the use of AI tools by Turkish learners of English on their writing skill development given the increasing prevalence of these tools among language learners. Thus, the perspectives of the instructors of these learners are significant in this sense. In this study, we used a Q-methodological approach to question 40 instructors from a state university in Istanbul about the issue. Upon the completion of Q-set grid, we conducted interviews with 5 participants to gain a deeper understanding of their perspectives on the use of AI by students for writing improvement. The preliminary results showed that participant instructors were both optimistic and pessimistic about the use of AI tools to improve the writing skills of their students, as they accepted that AI tools facilitated the learning process of the students by lessening the workload of the instructors, though they were unsure of the consequences as they might lead to outputs that are less authentic and creative by the learners. The participants also brought up some ethical concerns, including plagiarism. Based on the findings, practical policy implications have been proposed, while acknowledging the study's limitations and offering directions for future research.

Zablot, S., Boulc'h, L., Pironom, J., Sardier, A., & Drot-Delange, B. (2025). **Robots conversationnels : enquête sur les usages et représentations d'étudiants et étudiantes en sciences de l'éducation et de la formation en France**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-15
Le présent article rend compte des résultats d'une recherche auprès de 523 étudiants et étudiantes de licence et master de sciences de l'éducation et de la formation en France. Il vise à déterminer les usages et représentations de ces futurs professionnels et professionnelles de l'éducation concernant les robots conversationnels (RC). La méthode repose sur un questionnaire basé sur des échelles d'attitudes (littératie, utilité perçue, intention) et des entretiens semi-directifs. Les résultats montrent une faible compréhension de la manière dont les RC fonctionnent, les étudiantes et étudiants en ont un usage courant et varié dans le cadre privé et universitaire. Ils développent des

stratégies leur permettant, selon eux, d'être plus efficaces dans leurs révisions et plus performants dans la réalisation de leurs travaux universitaires. Ces premiers résultats ouvrent la voie à d'autres recherches qui permettraient de comprendre comment ces outils récents pourraient être intégrés efficacement dans l'enseignement supérieur, particulièrement chez les futurs professionnels et professionnelles de l'éducation.

Zhang, D., Wen, L., & Wu, J. G. (2025). **Structured or Semi-Structured? The Use of Reflection Journals in Postgraduates' Generative Artificial Intelligence Literacy Development in an L2 Academic Writing Context**. *European Journal of Education*, *60*(3), e70189. https://doi.org/10.1111/ejed.70189
Generative artificial intelligence (GenAI) not only has the potential to aid L2 academic writing but also poses unique challenges concerning impacts and ethics. Reflection journals, which promote critical thinking and metacognitive awareness, have the capacity to guide GenAI-assisted writing, yet remain underexplored. This study examines and compares the effects of structured reflection journals (SRJs) and semi-structured reflection journals (SSRJs) on enhancing postgraduates' GenAI literacy within an L2 academic writing context. Based on the frameworks proposed by UNESCO and Digital Promise, the study developed a GenAI literacy framework that includes four dimensions: (a) Operational Competence in GenAI Tools, (b) Ethics and Security in GenAI Usage, (c) Critical Evaluation of GenAI Outputs and Autonomy and (d) Reflection in GenAI Application. The study assessed the GenAI literacy levels of 39 participants before and after four GenAI-assisted writing tasks. Reflection journals were completed after each task (20 in the SRJ group and 19 in the SSRJ group). Results revealed significant improvements in GenAI literacy across three dimensions (Dimensions 1 to 3), with no significant difference between the SRJ and SSRJ groups. However, thematic analysis of reflective content showed that SRJs, with their more comprehensive guiding questions, encouraged deeper engagement with GenAI-related rules and more thorough evaluations of GenAI-generated content compared to SSRJs. By comparing different types of reflection journals as effective scaffolds in L2 writing pedagogy, this study encourages the integration of reflective practices into GenAI-assisted L2 academic writing classrooms, aiming to enhance students' critical evaluation skills and ethical awareness.

Zhang, J., Pan, W., Liang, X., & Ge, J. (2025). **Development and Validation of the ICAP GenAI Scale to Measure How Graduate Students Integrate Generative AI Into Academic Research**. *European Journal of Education*, *60*(3), e70209. https://doi.org/10.1111/ejed.70209
Generative artificial intelligence (GenAI) has profoundly reshaped how graduate students conceptualise, design and conduct academic research in higher education. While current metrics predominantly focus on technology acceptance and usage patterns, they often neglect the diverse cognitive engagements in graduate students' integration of GenAI across academic research activities. This study developed and validated a novel scale, grounded in the Interactive-Constructive-Active-Passive (ICAP) framework, to measure the integration of GenAI in academic research by graduate students. The scale development followed rigorous procedures beginning with a systematic literature review to create initial items, which were refined through expert reviews and pilot testing. Subsequently, two samples were created using data from 1216 Chinese graduate students across five disciplines (Arts and humanities, Social sciences, Science, Engineering, Medicine). For Sample 1, item-total correlation analysis and

exploratory factor analysis were conducted, revealing four distinct factors: Passive, Active, Constructive and Interactive. Sample 2 was used for confirmatory factor analysis and validity testing. The finalised 27-item ICAP GenAI Scale exhibited excellent model fit, high reliability, robust construct validity and demographic invariance. This empirically validated tool not only advances our understanding of human-AI collaboration in academic research but also has significant implications for enhancing the research capabilities and higher-order thinking of graduate students in the AI-driven era.

Zhang, K., Chen, J., Yang, Z., Ji, Y., Min, Y., Wang, G., & Liu, X. (2025). **Investigating joint attention in children with autism spectrum disorder through virtual reality and eye-tracking: a comparative study**. *Education and Information Technologies*, *30*(13), 18779-18798. https://doi.org/10.1007/s10639-025-13554-0
Joint attention is essential for establishing effective social communication. However, children with Autism Spectrum Disorder (ASD) often exhibit deficits in joint attention, which hinder their social interactions with peers and adults. Traditional assessment methods predominantly rely on expert observation, lacking objective measures of children's joint attention responses. To overcome these limitations, digital learning environments utilizing virtual reality technology and eye-tracking offer new opportunities for effectively assessing joint attention in children with ASD. This study explores the joint attention performance of children with ASD under social and non-social stimuli by tracking their eye movements in virtual environments. The study results indicate that: (1) Under social stimulus conditions alone, the joint attention abilities of children with ASD are significantly influenced by the environment, while typically developing (TD) children's abilities remain unaffected; (2) the additional of non-social stimuli significantly enhanced the joint attention scores for both groups. The TD group responded more effectively to non-social stimuli in the VR environment; (3) using TD children's joint attention scores under the Ssocial condition as a baseline, the additional of non-social stimuli helped ASD group approach the joint attention levels of TD. The conclusion suggests that VR-based multi-stimulus environments provide meaningful joint attention opportunities for children. By comparing with TD group, the study offers new insights and references for future interventions aimed at improving joint attention in children with ASD.

Zhang, L., Jiang, Q., Xiong, W., & Zhao, W. (2025). **Evaluating the quality of digital education resources based on learners' online reviews through topic modeling and opinion mining**. *Education and Information Technologies*, *30*(11), 15207-15230. https://doi.org/10.1007/s10639-025-13407-w
This study scientifically assessed digital education resources to determine how to develop these materials effectively. Data were obtained from the Smart Education Platform of China for higher education. Particularly, this research examined online reviews from learners who have used resources in various subjects, including music and art, humanities and social sciences, education and teaching, medical and health, computer science, and economic management. Then, topic modeling was applied to identify the important factors that influence the quality of digital education resources. Results show that content organization and language expression are the most pertinent dimensions, followed by knowledge explanation, teaching materials, and learning evaluation. Meanwhile, resource adaptability, teaching media, strategies, interaction, expansion of resources, learning experience, learning effectiveness, resource renewal, and teacher characteristics have a relatively limited influence on resource quality. This study also employed opinion mining, which revealed that digital education resources have the

highest outcomes in the areas of learning effectiveness, teaching strategies, teacher characteristics, and resource adaptability. Meanwhile, these resources have the poorest results in learning evaluation, teaching media, and resource renewal. Furthermore, results revealed that music and art resources have the best quality among all types of digital education resources. By contrast, resources for computer science and economic management have relatively poor quality. This study ultimately presents a viable approach for evaluating digital education resources, which can then be used to offer practical guidance on raising the quality of digital education resources across various subjects.

Zhang, X., Hu, J., & Zhou, Y. (2025). **The role of perceived utility and ethical concerns in the adoption of AI-based data analysis tools: A multi-group structural equation model analysis among academic researchers**. *Education and Information Technologies*, *30*(13), 18819-18851. https://doi.org/10.1007/s10639-025-13535-3
This study explores the role of perceived utility, social influence, and ethical concerns in the adoption of AI-based data analysis tools among academic researchers in China, focusing on differences between public and private universities. The research aims to identify key drivers and barriers influencing the integration of AI technology in academic settings. A quantitative approach was employed, using a multi-group structural equation model (SEM) analysis to assess data collected from 750 academic researchers across various disciplines (Npvt = 402; Npub = 348). The findings reveal that both perceived utility and social influence significantly influence the adoption of AI tools. Higher perceived utility and stronger social influence lead to greater adoption. However, ethical concerns were found to moderate these relationships, particularly in public universities, where researchers with high ethical concerns perceived greater risks, thereby reducing their likelihood of adoption. In contrast, private university researchers showed a higher tolerance for perceived risks when utility and social influence were evident. The study's implications suggest that to promote AI adoption, institutions must address ethical concerns and perceived risks, particularly in public universities, by enhancing transparency, providing ethical guidelines, and offering comprehensive training. These efforts can lead to more effective integration of AI technologies, ultimately enhancing research productivity and innovation across diverse academic environments.

Zhang, Yan. (2025). **Exploring the Role of AI-Mediated L2 Education in Chinese EFL Teachers' Classroom Rapport With Their Students**. *European Journal of Education*, *60*(3), e70142. https://doi.org/10.1111/ejed.70142
In recent years, an increasing body of research has reported the contributions of artificial intelligence (AI) technologies to various aspects of second/foreign language (L2) education. However, there is a shortage of evidence on the interplay of AI and teacher-student classroom rapport. To fill this void, this study used a qualitative design through a semi-structured interview with a sample of 35 Chinese EFL teachers to examine their perceptions about the role of AI-mediated L2 instruction in teacher-student classroom rapport. The results of the thematic analysis showed that the inclusion and integration of AI tools in L2 classes had affected teacher-student classroom rapport in six areas through 'making students happier and interested in learning', 'granting students agency and autonomy in the classes', 'adding vitality and joy to classroom relations', 'reducing teacher-student distance', 'establishing an atmosphere of trust in the class', and 'making teacher-student communication borderless and limitless'. Each finding is separately and comprehensively discussed and implications, at theoretical and practical levels, are

provided for EFL teachers and teacher educators regarding the impact of AI technologies on L2 classroom rapport and relationships.

Zhang, Yu, Zhu, D., & Zhang, L. J. (2025). **Mapping the Research Terrain of Digital Multimodal Composing in L2 Contexts: A Scientometric Review**. *European Journal of Education*, *60*(3), e70167. https://doi.org/10.1111/ejed.70167
Despite growing research interest in digital multimodal composing (DMC) in L2 contexts, its developmental trajectory remains largely underexplored. To address this gap, we conducted a scientometric review using CiteSpace on 128 publications indexed in the Web of Science Core Collection. Our analysis reveals a rapid growth in DMC research over the past decade, especially in the last two years. Document co-citation analysis identified six core themes, including DMC's impact on writing, assessment rubrics, language learning affordances, collaborative task, learner perceptions, and pedagogical guidelines. While research focus has remained relatively stable, co-citation burst analysis delineated emerging trends comprising pedagogical values of DMC, assessment rubrics, and collaborative composing processes. Our review not only charts the evolution of this field but also offers directions for future inquiry by identifying key research gaps through a novel scientometric lens.

Zhao, G., & Mu, P. (2025). **The relationship between materialism and susceptibility to online fraud among Chinese college students: A moderated mediation model from trait and state perspectives**. *Asian Journal of Social Psychology*, *28*(3), e70040. https://doi.org/10.1111/ajsp.70040
Online fraud in China is increasingly targeting the younger population, with susceptibility to online fraud serving as a critical indicator for predicting this risk. This study explores the relationship between materialism and susceptibility to online fraud among Chinese college students, as well as the underlying mechanisms from both trait and state perspectives. Study 1 involved a survey of 827 Chinese college students utilizing a cross-sectional design, with the Materialism Values Scale for College Students, the Telecom Network Susceptibility to Internet Fraud Questionnaire, the Self-Control Scale for Chinese College Students and the Social Comparison Effect Scale. Results revealed a positive correlation between materialism and susceptibility to online fraud, with self-control serving as a mediating factor and social comparison as a moderating factor. In Study 2, 144 Chinese college students were recruited for an experimental study to induce varying levels of materialism via a scrambled-sentence paradigm, while manipulating the direction of social comparison. Findings confirmed that materialism directly influences susceptibility to online fraud, with self-control as a mediating variable and social comparison as a moderating variable. In conclusion, under conditions of upward social comparison, materialism significantly heightens online fraud risk by undermining self-control. This study discusses these findings in detail and proposes future research directions.

Zhao, J., Li, X., & Liao, H. (2025). **A context-specific analysis of translation technology usage behavior among college EFL students: Insights from the UTAUT2 model**. *Education and Information Technologies*, *30*(12), 16515-16549. https://doi.org/10.1007/s10639-025-13454-3
In an increasingly globalized world, translation technologies are critical in facilitating language comprehension and translation performance, especially among college EFL students. Despite their potential, the factors impacting their actual use in tertiary

education remain underexplored. This study employs the UTAUT2 model to identify determinants affecting the usage behavior of translation technologies among this demographic. A validated questionnaire was distributed to 554 EFL students from six universities who had coursework involving translation technologies. The analysis used SPSS 27 and SmartPLS 4, focusing on descriptive statistics and PLS-SEM to evaluate the measurement and structural models. The study found that performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit significantly impacted behavioral intention to use translation technologies. Facilitating conditions, habit, and behavioral intention significantly affected actual use behavior. The model demonstrated substantial explanatory power, with R2 values of 0.746 for behavioral intention and 0.598 for use behavior. Control variables, including gender, age, and experience, demonstrated no significant impact on use behavior. This investigation pioneers the application of the UTAUT2 model to translation technologies in tertiary education. The results offer theoretical and practical insights for educators, policymakers, and technology developers to improve translation technology adoption and efficient use in educational settings.

Zheng, L., He, A., Qi, C., Zhang, H., & Gu, X. (2025). **Cognitive Echo: Enhancing think-aloud protocols with LLM-based simulated students**. *British Journal of Educational Technology*, *56*(5), 2019-2042. https://doi.org/10.1111/bjet.13590
In the field of education, the think-aloud protocol is commonly used to encourage learners to articulate their thoughts during the learning process, providing observers with valuable insights into learners' cognitive processes beyond the final learning outcomes. However, the implementation of think-aloud protocols faces challenges such as task interference and limitations in completeness and authenticity of verbal reports. This study proposes a method called Cognitive Echo, which leverages large language models (LLMs) trained with simulated student experiences to enhance the completeness and authenticity of think-aloud verbalizations. LLMs have been demonstrated to simulate human-like behaviour more effectively by memorizing experiences. In this work, we introduce specific learner roles and train the LLMs to act as distinct learners. Our method involves integrating transaction data from learners' interactions with a tutoring system and the tutor's content to create interactive experiences between learners and teachers, thereby training the model to become simulated students with learning experiences. To investigate the effectiveness of this approach, we designed a test playground based on the retrospective think-aloud protocol and examined how LLM-trained simulated students improve cognitive process transparency and generalization of learning strategies. The study found that Cognitive Echo not only reveals what simulated students genuinely think about their learning experiences but also enables them to transfer their different cognitive strategies to new tasks. By training simulated students on real learning behaviour data to ensure their cognitive processes reflect authentic learner experiences, this approach will extend think-aloud protocols to more practice-oriented applications. Practitioner notes What is already known about this topic Think-aloud protocols are widely used in educational settings to explore students' cognitive processes by asking them to verbalize their thoughts while solving problems, but they are prone to issues like task interference and incomplete data reporting. Existed applications of simulating student cognition in educational research are rigid and less adaptive to individual learner characteristics. Artificial intelligences, especially large language models, have shown promise in educational contexts, particularly for simulating human-like behaviours. What this paper adds This paper introduces the

concept of Cognitive Echo, a method that integrates LLM-powered simulated students into think-aloud protocols, which addresses the limitations of traditional verbalization-based methods by leveraging retrospective data. The study shows that LLMs, when fine-tuned with authentic learner experiences, can replicate distinct human-like cognitive processes, enabling a more complete and authentic simulation of how students think and solve problems. It demonstrates how the use of LLMs to simulate students' cognitive processes can enhance the transparency and completeness of think-aloud protocols by allowing researchers to capture cognitive strategies and behaviours that would otherwise go unspoken. Implications for practice and/or policy Teacher training programmes can benefit from integrating LLM-based simulated students, which enable preservice teachers to practice responding to a wide range of cognitive processes and challenges without the constraints of real-time think-aloud tasks. The Cognitive Echo method, by offering a more authentic and less intrusive way of capturing student cognition, can be applied in teacher training scenarios where simulation of real-world classroom dynamics is crucial for developing pedagogical skills. The use of Cognitive Echo could help in the creation of digital twins of educational scenarios, facilitating research into complex educational issues (eg, bullying and learning disabilities) through simulations that model real-world interactions.

Zhong, Y., Lian, J., Huang, H., & Deng, H. (2025). **Affordances, constraints, and implications of ChatGPT in education from a social-ecological perspective: A data mining approach**. *Education and Information Technologies*, *30*(12), 16407-16440. https://doi.org/10.1007/s10639-024-13237-2
This study investigated the affordances, constraints, and implications of ChatGPT in education using the affordance theory and social-ecological systems theory. We employed a data mining approach that blends social media analytics including sentiment analysis and topic modelling and qualitative analysis to extract viewpoints from a collection of datasets consisting of 33,456 tweets. Key findings indicate that 42.1% of analysed tweets conveyed a positive sentiment, 39.6% were neutral, and only 18.3% conveyed a negative sentiment. We also identified five categories of ChatGPT properties (e.g., text and data analysis, AI and machine learning) and an array of affordances of ChatGPT in education (e.g., facilitating student personalised learning, classroom instruction, provision of educational resources, curriculum changes, and assessment). Meanwhile, the findings revealed key concerns, including academic dishonesty, bias, and ethics that warrant attention. This study contributes to a real-time understanding of the impact of ChatGPT on education and informs researchers, educators, and policymakers to take a holistic approach to evaluating ChatGPT in educational practices.

Zhu, Y., Liu, Q., & Zhao, L. (2025). **Exploring the impact of generative artificial intelligence on students' learning outcomes: a meta-analysis**. *Education and Information Technologies*, *30*(11), 16211-16239. https://doi.org/10.1007/s10639-025-13420-z
Generative artificial intelligence (GAI) has brought new ideas for optimizing students' learning. Despite increasing attention on the effects of GAI on learning outcomes (LO), research results are inconsistent. While GAI's educational benefits are qualitatively described, there is substantial debate about its actual impact on students' LO. The study sought to quantify GAI's impact on students' LO, evaluating its overall and average effects, and examining four key moderating factors: functional types of GAI, educational levels, intervention duration, and knowledge domains. Based on the screening criteria,

26 empirical studies were selected from 5,887 peer-reviewed papers. Two researchers collaboratively completed the literature screening and coding process. The research employed a meta-analytic method to calculate the impact of GAI on learners' LO, and examined four moderating factors. GAI exerts a significant but small overall effect on students' LO (g = 0.392), with varying impacts on physical (g = 0.701), social-emotional (g = 0.347), and intellectual (g = 0.372) outcomes. The changes of GAI's functional types have no significant effect on LO, but three other moderating factors do, showing significant statistical differences. GAI more significantly impacts primary school students, especially in supporting their intellectual and social-emotional outcomes. Longer interventions have a greater effect on LO than short ones, particularly intellectual and physical outcomes. GAI's effects vary across knowledge domains, possibly due to its adaptability in different subjects. Long-term GAI in higher education boosts intellectual and physical outcomes, especially in education and humanities and arts, while short-term use in primary education enhances social-emotional outcomes. Integrating diverse learning components and adjusting GAI implementation parameters can optimize its effectiveness in terms of enhancing LO across different levels of education.

Zhu, Z., Ren, Y., & Shen, A. ran. (2025). **Exploring the acceptance of generative artificial intelligence-assisted learning and design creation among students in art design specialties: based on the extended TAM model**. *Education and Information Technologies*, *30*(13), 18651-18678. https://doi.org/10.1007/s10639-025-13551-3
Current educational trends leverage artificial intelligence (AI) to provide high-quality teaching and enhance students' learning competitiveness. This study aimed to evaluate the acceptance of artificial intelligence generated content (AIGC) for assisted learning and design creation among art and design students. Based on an extended technology acceptance model (ETAM), this study explored how external variables influence perceived usefulness (PU) and perceived ease of use (PEOU), which in turn affect attitude towards use (ATT) and behavioral intention (BI). Data were collected from 382 students via a questionnaire survey and analyzed using a structural equation model. The results confirmed 12 out of the 14 hypotheses. Among them, facility condition (FC), output quality (OQ), task-technology fit (TTF), and hedonic motivation (HM) positively influenced PU and PEOU, whereas AI anxiety (AIA) negatively affected PU and PEOU. ATT had a significant positive effect on BI. This study provides theoretical support and practical insights for promoting AIGC applications, advancing sustainable education, and optimizing user engagement.

Orientation scolaire et professionnelle

Aghaz, A., Salmasi, S. D., & Mirzaee, M. (2025). **Cultural Values and Gender Differences in the Association Between Iranian University Professors' Authenticity and Generation Z Students' Intention to Migrate**. *European Journal of Education*, *60*(3), e70212. https://doi.org/10.1111/ejed.70212
Given the significance of authenticity in higher education institutions and the growing number of Iranian generation Z (Gen Z) students migrating to pursue Ph.D. degrees, this study aims to examine how university professors' authenticity influences Iran's Gen Z students' intention to migrate (ITM). Additionally, employing a horizontal and vertical individualism (VI)/collectivism (HVIC) classification, this study investigates how students' cultural values and their gender moderate the relationship between their university

professors' authenticity and their educational migration intention. This research is a sample survey and data was gathered via an online survey. Gen Z MBA students studying at six high-ranked Iranian business schools were considered as the population. Overall, 337 responses were gathered. The results obtained through PLS-SEM indicated that students who perceive their professors to be more authentic are less inclined to decide on leaving the country for educational purposes. Moreover, whereas vertical collectivism (VC) and horizontal collectivism (HC) significantly moderate the impact of authentic leadership (AL) on the ITM, VI and horizontal individualism (HI) do not moderate the effect of AL on ITM. Furthermore, the results demonstrated that the negative relation between the professors' authenticity and the students' ITM was stronger for female students in comparison with male ones.

Akfirat, O. N., & Öztan Ulusoy, Y. (2025). **What has changed in five years? Perspectives of school counsellors on Syrian students**. *International Journal of Educational Research*, *133*, 102702. https://doi.org/10.1016/j.ijer.2025.102702
This study aims to examine the problems faced by Syrian refugee children attending schools in Türkiye and assess school counsellors' views on the interventions carried out for these students over five years (2018–2023). This research focuses on identifying changes in the challenges experienced by refugee children in their educational journeys and the measures implemented during this period. Data were collected from school counsellors working in both PICTES project and non-project schools across different cities in Türkiye. The data, obtained through a demographic information form and a semi-structured interview form, were analyzed using a phenomenological qualitative research design. A seven-step qualitative data analysis method was applied. The findings from the first and second data collection periods were evaluated separately, leading to the identification of codes, categories, and themes. The results indicate that language deficiency continued to be a determining factor in the adaptation challenges of Syrian students over the past five years, recurring across academic, social, and cultural adaptation categories. Additionally, it was found that Syrian students received support from school counseling services in 2018 primarily for adaptation and coping with trauma. In contrast, in 2023, support was primarily focused on school adaptation and academic achievement. However, challenges in cultural adaptation persisted in both periods. The importance of individual, group, and family activities in developing adaptive and language skills was emphasized.

Arellano, A., Carrica-Ochoa, S., & Sotés-Elizalde, M. Á. (2025). **"As a mother, as a woman, as a Roma, what I want is to be surpassed": Roma mothers' stories about their children's educational trajectories**. *International Journal of Educational Research*, *133*, 102703. https://doi.org/10.1016/j.ijer.2025.102703
Despite being one of the largest minority groups in Europe, the Roma people continue to face discrimination and segregation in education settings. Stereotypes and negative images of Roma people are still frequently occurring in the minds of the majority population, including professionals responsible for educational services and schools. Consequently, Roma children's educational trajectories are often marked by obstacles, and Roma families find it difficult to collaborate with education professionals. This study used a qualitative research method to explore Roma mothers' perspectives on their children's school life trajectories. The participants were 21 mothers of youth aged 12–18 years who gave semi-structured interviews. In total, 28 children of whom 22 were enrolled in the educational system at the time of the study. The interview content was thematically

analysed using NVivo 12Pro. The results showed that Roma mothers value education as a relevant goal but have encountered many obstacles in their efforts to support their children's educational trajectories. Much remains to be done in terms of family–school relationships as well as regarding strengthening the role of the family as a support environment. Flexible assistance for families that is tailored to their specific needs and values is necessary. The research participants claimed to have experienced a more favourable reception in schools and thus concluded that such assistance could help them to more positively support their children.

Ball, I., Banerjee, M., Holliman, A., & Tyndall, I. (2025). **Investigating Success in the Transition to University: A Systematic Review of Personal Risk and Protective Factors Influencing Psychosocial Success**. *Educational Psychology Review*, *37*(3), 77. https://doi.org/10.1007/s10648-025-10047-x
Navigating the transition to university is a challenge for many students with numerous negative consequences if not successful. The current literature body is disparate and contains numerous methodological and analytical inconsistencies that make it difficult to identify the most salient and effective factors that help predict transition success for students. The present study provides a systematic review of quantitative research linking personal level risk and protective factors to psychosocial success outcomes in the transition to university. Previous work has investigated factors influencing more traditional success metrics (e.g., academic achievement, completion), but the factors influencing, arguably more holistic, psychosocial success metrics (e.g., wellbeing) should also be understood. This is part of a larger review, following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Synthesis Without Meta-analysis (SWiM) guidelines, preregistered on the International Prospective Register of Systematic Reviews (PROSPERO, CRD42022330515), searching PsycInfo, Web of Science, and ERIC databases. Records were included if they studied 'traditional' first-year students transitioning to university and were longitudinal in design and excluded if they looked at specific subgroups of students (e.g., international students). The search yielded 32 articles that were eligible, highlighting 96 purportedly different salient factors which are consolidated to 16 salient elements grouped around five higher order domains. The findings are discussed with a consolidation mindset that aims to move the research forward towards an evidence-based feasible and pragmatic intervention to enhance the probability of successful student transition to university.

Barets, E. (2025, juillet 10). **Pour les étudiants et diplômés d'outre-mer, de l'injonction au départ au dilemme du retour**. *Le Monde*. Consulté à l'adresse https://www.lemonde.fr/campus/article/2025/07/10/pour-les-etudiants-et-diplomes-ultramarins-de-l-injonction-au-depart-au-dilemme-du-retour_6620525_4401467.html
Venus dans l'Hexagone pour poursuivre leurs études, de nombreux jeunes ultramarins se retrouvent tiraillés entre perspectives professionnelles et attachements familiaux.

Bozonnet, C. (2025, juillet 11). **Année de césure : « Il y a chez les jeunes Français une tension fondamentale entre vivre sa vie et la gagner »**. *Le Monde*. Consulté à l'adresse https://www.lemonde.fr/campus/article/2025/07/11/annee-de-cesure-il-y-a-chez-les-jeunes-francais-une-tension-fondamentale-entre-vivre-sa-vie-et-la-gagner_6620697_4401467.html

ANALYSE. Mis sous pression par un système scolaire très rigide, de nombreux jeunes hésitent encore à interrompre leurs études pour une année de césure. Une pratique bien plus répandue chez nos voisins européens.

Hu, X., & Creed, B. (2025). **Implementing Transitional Math: Perspectives of Illinois Community College Program Leaders**. *Innovative Higher Education*, *50*(4), 1089-1113. https://doi.org/10.1007/s10755-024-09773-x
In 2016, Illinois initiated a statewide transitional math program to support students to be academically ready in college-level math before graduating from high school. This qualitative study focuses on the perspective of community college faculty and administrators on the statewide implementation of transitional math programs. We find that a successful partnership between high schools and community colleges is perceived as key to designing, implementing, and improving transitional math programs to ensure effective teaching and learning. However, community college leaders perceived that it remains unclear how transitional math programs impact student success, college enrollment, and educational equity. We provided practical implications for both transitional math programs and the broader developmental education reform.

Le, K. T., Nguyen, C., Tran, T. N., Le, K.-M. A., Le, T.-B., Cao, P., & Cao, C. (2025). **Beyond the gender gap: The role of cultural, socioeconomic, and familial factors in Vietnamese students' STEM major choices**. *International Journal of Educational Research*, *133*, 102696. https://doi.org/10.1016/j.ijer.2025.102696
This mixed-methods study explores gender disparities in STEM major choices among Vietnamese high school seniors (12th graders), with a focus on the cultural, socioeconomic, and familial factors associated with these patterns. Quantitative analysis of survey data from 3583 students revealed that female students were significantly less inclined to choose STEM disciplines compared to their male counterparts, even after accounting for academic performance. Qualitative interviews with 40 students offered deeper insights into how traditional gender norms and cultural expectations contribute to this disparity. When considering socioeconomic factors, surprisingly, both our quantitative and qualitative data indicated that students from rural, lower socioeconomic backgrounds were more likely to pursue STEM majors than their urban, higher socioeconomic peers. This intriguing finding contrasts with typical educational patterns reported in previous research, where urban, affluent students tend to dominate STEM fields. The disparity can be attributed to rural students' strategic view of STEM careers as pathways to high-income careers that support their families, coupled with their perception that STEM fields in Vietnam offer more merit-based opportunities, irrespective of socioeconomic background. In addition, we found that fathers' expectations of their children's educational level had a significant and positive effect on the likelihood of students choosing STEM majors, while mothers' expectations did not have the same effect. Our findings highlight the roles of gender, socioeconomic status, and parental expectation in shaping Vietnamese seniors' STEM major choices. The study offers recommendations for policymakers and educators to address the STEM gender gap in Vietnam and beyond.

Lee, J., & Suh, H. (2025). **Does Financial Aid Help Low-Income Students Take Dual Enrollment Courses?** *Innovative Higher Education*, *50*(4), 1227-1245. https://doi.org/10.1007/s10755-024-09778-6

For the last two decades, dual enrollment has rapidly grown across the country. Previous studies consistently show that dual enrollment is positively associated with college enrollment, readiness, and persistence. However, descriptive statistics show that low-income students and racial minority students are underrepresented in dual enrollment courses. While the participation gap is well-documented, little is known about policies and practices to improve dual enrollment participation among historically underrepresented students. To fill the gap in the literature, this study explores the role of a statewide financial aid program, the Access College Early (ACE) scholarship in Nebraska, on students' dual enrollment participation. Specifically, this research addresses the following questions: 1) Who received the ACE scholarship? and, 2) Did receiving the ACE scholarship relate to dual enrollment participation? We analyzed statewide data for the 2019 Nebraska high school graduating class with logistic regression and Poisson regression models. Results show that receiving the ACE scholarship is positively associated with dual enrollment participation and the number of dual enrollment courses taken. However, the ACE scholarship is disproportionately distributed to academically high-performing students who attend relatively wealthier high schools with better teacher resources.

Livermore, T., & Major, M. (2025). **Understanding Low Levels of Participation and Diversity in Economics: A Survey of High School Students**. *Australian Economic Papers*, *64*(3), 368-379. https://doi.org/10.1111/1467-8454.12402
Using data from a novel survey of over 4800 students, we examine the low levels of participation and diversity in Economics at Australia's high schools. We find that student demand for Economics as a subject is strongly associated with socio-educational advantage and sex, even when accounting for sample selection in whether schools offer Economics. Students typically have positive perceptions of economics as a field; however, the perceptions of Economics as a subject tend to be negative. Males compared to females, and students from more socio-educationally advantaged schools compared to less socio-educationally advantaged schools have more favorable perceptions of Economics as a subject, which is reflected in a higher likelihood of them choosing to study Economics. Controlling for a greater perceived understanding of what the subject of Economics is about does reduce some of the sex and socio-educational differences in perceptions, but a gap remains.

Nix, A. N., & Hu, S. (2025). **Informed Self-Placement: A Case Study of the Florida College System**. *Innovative Higher Education*, *50*(4), 1335-1353. https://doi.org/10.1007/s10755-024-09777-7
Traditional college advising, whereby advisors provide course assignments according to standardized placement test scores, has undergone major transformation in recent years. New placement models, like "informed self-placement" based on multiple measures of documented student achievement, are growing in popularity but remain understudied. To address this gap in scholarship, we took advantage of a unique opportunity presented by statewide reform in Florida to explore how Florida College System advisors described the implementation of informed self-placement and multiple measures between 2014 and 2019, paying special attention to emergent challenges and corresponding solutions. Our findings, drawn from the perspectives of 275 advisors representing 19 different institutions shared during semi-structured focus group sessions, revealed that advisors used a combination of high school experiences, non-cognitive factors, and continued placement testing to inform course recommendations that

students could then choose to act upon or ignore when registering for their classes. We also observed several challenges (i.e., increased workload, insufficient information, and student resistance) that advisors managed through group advising, advanced preparation, and self-diagnostic tools.

Oliphant & Ma. (2025). **Applying Behavioral Economics to Social Capital to Increase International Enrollment in U.S. Community Colleges**. *Community College Journal of Research and Practice*, *49*(9), 598-614. https://doi.org/10.1080/10668926.2024.2355878
At a time when international student enrollment has been declining at community colleges for more reasons than just the pandemic, this paper attempts to address a gap in the literature to assist community colleges with their enrollment by helping them recruit international students. While there are many suggestions for improving international enrollment numbers, they are often financially costly. Given the budgets of community colleges and how international students choose their post-secondary institutions, community colleges are best able to raise international enrollment by concentrating on improving the campus experience for their current international students. To do so, this paper is the first to apply insights from behavioral economics to see how they might help increase the social capital of international students to boost international enrollment. Outside the classroom, international students may be helped by the college employing behavioral biases such as the availability bias and status quo bias and the heuristic known as the foot-in-the-door to raise their social capital with domestic students and using the information overload and choice overload to increase their social capital with academic counselors. Inside the classroom, faculty members can employ behavioral biases like the appeal to authority and the in-group bias to help international students increase their social capital with domestic students.

Permatasari, N., Suminar, D. R., & Hendriani, W. (2025). **Transforming minority students' adaptation: understanding minority students' transition to college in Eastern Indonesia**. *International Journal of Qualitative Studies in Education*, *38*(7), 1009-1029. https://doi.org/10.1080/09518398.2025.2452629
This study discusses the adaptation transformation of minority students, especially those from Eastern Indonesia, in transitioning to higher education in their first year of study. It involves 60 minority students from various faculties in eight focus group discussion groups and is followed up with in-depth interviews with three minority students. This study aims to gain in-depth insights into students' experiences during the adaptation process in the early years of college. The study's results highlight the challenges and strategies faced by minority students, identifying factors that influence their adjustment. The findings provide a better understanding of how minority students deal with challenges by enhancing adaptation and academic success in the college environment. This study can provide a foundation for educational policies that are more inclusive and focused on encouraging a successful transition for minority students in Eastern Indonesia.

Wang, T., & Jin, T. (2025). **Parental gender role attitudes and children's college major choices in STEM**. *Higher Education*, *90*(1), 109-129. https://doi.org/10.1007/s10734-024-01313-y
Despite notable progress in narrowing the global gender gap in education, women's participation in science, technology, engineering, and mathematics (STEM) fields remains disproportionately low. This study investigates the substantial impact of parental, particularly maternal, gender role attitudes on their children's major choices in China. To

address endogeneity concerns, this research adopts a culture-based instrumental variable approach using regional differences in exposure to Confucian culture based on parental birthplaces as instruments. The results show that mothers who hold traditional gender role attitudes significantly discourage their daughters from pursuing STEM majors, with this discouraging effect being particularly pronounced in urban areas and among vocational college students. Further analysis on the mechanisms indicates that traditional maternal gender role attitudes negatively affect daughters' mathematical performance, self-esteem, and risk-taking, thereby limiting their inclination toward STEM fields. These findings highlight the imperative for policy interventions aimed at challenging and transforming parental stereotypes, which may serve as a crucial mechanism for reducing gender segregation in STEM education.

Yu, Z., & Shirahada, K. (2025). **A Career Development of International Doctoral Students in Humanities and Social Sciences in Japan: Perspectives of Professional Identity Construction and Cruel Optimism**. *Higher Education Quarterly*, *79*(3), e70048. https://doi.org/10.1111/hequ.70048
With the growing number of PhD graduates worldwide and the decline in tenure-track positions, more PhD students are considering non-academic careers. However, influenced by cruel optimism, many remain emotionally attached to academia, making it difficult for them to explore alternative career paths. This study employs an interpretative phenomenological analysis approach, conducting interviews with 12 Asian PhD graduates in Japan to examine their job-hunting experiences and the psychological factors behind their career choices. Findings reveal that the construction of PhD students' professional identity is shaped by social and cultural influences, academic training, and structural issues in the labour market, leading to psychological struggles and real-world challenges in their search. Based on these insights, this study develops a theoretical framework to illustrate how cruel optimism affects career development and offers recommendations for PhD students, universities, and employers to improve career support systems and address employment challenges faced by PhD students.

Politique de l'éducation et système éducatif

Agasisti, T., & Soncin, M. (2025). **Italy: Student Performance and Learning Loss**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 93-103). https://doi.org/10.1007/978-3-031-69284-0_7
Recent evidence from the 2022 wave of the OECD Programme for International Student Assessment (PISA) sheds light on the phenomenon of learning loss exacerbated by the COVID-19 pandemic. Italy, having implemented one of the longest national school closures during the pandemic, serves as a notable case study. This chapter reviews studies exploring the extent of learning loss that reveal significant negative results—particularly in mathematics and reading—with the only exception of reading in primary education. The learning loss in lower and upper secondary school ranges between 0.05 and 0.41 standard deviations (SD) respectively in reading, and 0.03 and 0.39 SD in mathematics, with impacts intensifying at higher educational levels. Despite efforts to address learning loss through measures such as online tutoring programmes, the long-term consequences remain a concern, particularly for upper secondary students. Further research is crucial to understanding the full scope of COVID-19's impact on education,

including its implications for student well-being and the enduring effects of the adoption of digital technology.

Akogun, O., & Adesina, A. (2025). ***Strengthening the delivery of Universal Basic Education (UBE) in conflict-affected areas of Adamawa State, Nigeria*** (p. 1-8). Consulté à l'adresse ERICC website: https://doi.org/10.6084/m9.figshare.29438555.v2
Universal Basic Education (UBE) in Nigeria remains far from realisation in conflict-affected areas such as Adamawa State. In 2024, a participatory action research (PAR) project was implemented in three school communities in Gombi Local Government Authority (LGA), an area impacted by the Boko Haram insurgency and ongoing displacement, in addition to periodic conflicts between pastoralists and farmers. The PAR initiative, conducted by the Common Heritage Foundation (CHF) and the International Rescue Committee (IRC) under the Education Research in Conflict and Protracted Crisis (ERICC) programme, sought to co-design and pilot community-led solutions to barriers to access, quality, and continuity of basic education. Gombi LGA was selected because it has been heavily affected by the Boko Haram insurgency. Although the occupation of the LGA headquarters and prominent communities by the insurgents only lasted for a few weeks in 2014, frequent attacks, disruptions to the education system, and even displacements lasted for long periods (several months or even years), the aftermath of which is still felt. At the time of this research, however, people were returning and resettling, and some who had fled to the LGA from elsewhere had decided to stay and start new lives. This LGA, which is largely rural and Muslim, was also selected because it was classified by the State Universal Basic Education Board (SUBEB) as having a high number of out-of-school children (OOSCs). The three focus primary school communities also had high numbers of OOSCs. LGA education (LGEA) officials worked as co-researchers in facilitating the development of community-driven initiatives to be piloted that address systemic educational challenges in the delivery of UBE in these conflict-affected communities. Key findings include:Persistent barriers to educationGaps in representation, understanding, and systems There is demand for community participation and empowerment Community-level actions already taken to improve UBECommunity-driven recommendations for piloting in UBE III

Allam, M.-C. (2024). ***Les Cités éducatives vues par leurs acteurs de terrain*** (Report, INJEP - Institut national de la jeunesse et de l'éducation populaire ; Université Grenoble Alpes ; Laboratoire Pacte ; ODENORE). https://doi.org/10.3917/raised.027.0131
Anania, A. M. (2025). **The influence of policy and political discourses on community participation in school development in Tanzania**. *Cogent Education*, *12*(1), 2530902. https://doi.org/10.1080/2331186X.2025.2530902
Community participation is adopted as a strategy potential for enhancing infrastructure and facility adequacy in schools. However, many schools are still facing inadequacies. This study aimed to explore how policies and politics influence community participation in the development of Ward-Based Secondary Schools (WBSS) in Tanzania. Specifically, it sought to determine strategies through which community members (CMs) were involved to contribute to infrastructure and facility availability in WBSS, and how political discourses and policy frameworks either facilitate or hinder community participation in supporting school infrastructure and facility development. The Horkheimer (1937) traditional and critical theory was used in this study. A multiple case study design was employed, drawing 36 participants from four schools and their local communities. Data was generated using interviews, documentary review and observation, and analysed

using thematic analysis. Findings revealed that, while policy formulation and dissemination limited community participation, they also served to enforce community involvement. The political environment, especially multi-party politics, had a dual impact: sometimes limiting and at other times fostering school development. The study recommends the creation of clearer policy statements, and effective dissemination strategies to reach local communities. Additionally, it urges politicians to reflect on their role in mobilizing potential resources from local communities for school development.

Andrabi, T., Das, J., Khwaja, A., & Ozyurt, S. (2025). ***Helping Schools Survive: Experimental Evidence on the Impact of Financial and Educational Support to Private Schools*** (Working paper N° 34042). Consulté à l'adresse National Bureau of Economic Research, Inc website: https://EconPapers.repec.org/RePEc:nbr:nberwo:34042
Low-cost private schools have increased educational access in low-income countries, but frequent school closures lead to costly disruptions in children's schooling. We provide experimental evidence from Pakistan that both school loans and educational products and services (EPS) are (a) commercially viable products and (b) substantially and similarly improve school survival rates. Moreover, loans decrease closure rates more for schools with larger initial enrollments and lower baseline test scores, while EPS show no such differential impact. These results demonstrate how financial and educational input constraints can significantly affect school survival while underscoring that the fungibility of entrepreneurial support matters.

Aparicio Puerta, M., & Polo Sánchez, M. T. (2025). **Design and validation of a programme to improve attitudes towards disability in early childhood education**. *International Journal of Inclusive Education*, *29*(11), 1919-1936. https://doi.org/10.1080/13603116.2024.2325931
In order to achieve effective educational inclusion, positive attitudes towards disability among peers are essential. However, many studies have found a negative disposition towards this group (Álvarez 2020; Wang and Qi 2020; Werner, Peretz, and Roth 2015). Therefore, it is important to have specific programmes that help us to improve disability awareness. However, despite the relevance of the Early Childhood Education stage, no validated programmes with this objective have been found in Spain. For this reason, the PROCREADI programme has been designed. Programme for Growing up with Positive Attitudes towards Disability in Early Childhood Education [author(s)] has been designed and validated through a pilot study with a sample of 28 Infant Education students. The results show a notable improvement in attitudes and in the knowledge of the concept of disability in this experimental group. Therefore, it can be concluded that the proposed programme is a useful tool to promote greater knowledge and more positive attitudes towards people with disabilities among preschool students.

Arian, M., Doulatabad, S. N., & Kamali, A. (2025). **Addressing the Impending Physician Shortage: An Examination of Strategies to Increase Graduate Medical Education via SWOT-AHP Model**. *European Journal of Education*, *60*(3), e70040. https://doi.org/10.1111/ejed.70040
This study assesses government initiatives on global physician shortages using SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis and the Analytic Hierarchy Process (AHP). The aim of this study was to identify and evaluate educational strategies to increase medical graduates by the SWOT-AHP Model. A systematic review was conducted to compile existing solutions to physician shortages, followed by a Delphi survey to gather expert insights for SWOT analysis. Expert judgements were used to rank

the strategies using the AHP methodology. Calculations of importance level, group weights and consistency ratios, and selection of optimal strategies to be implemented were done through the Choice Expert software. From the results, three identified areas are very critical to intervene: medical education, admission processes and non-physician providers. Strategies include innovative pathways to medical education that increase access, as well as the establishment of medical schools in regions that are underserved by healthcare to address regional disparities in access to care. Enhancement of retention of primary care physicians through improvement in working conditions, reduction of administrative burden, financial incentives and job satisfaction is stressed. Other priorities include expanding services to underserved areas through telehealth adoption, scope of practice expansion for non-physician providers and team-based care models. This study concludes that the tested interventions can help ease physician shortages without compromising the quality of medical education, training and patient care. It provides policymakers with practical recommendations on how to design targeted, sustainable strategies that ensure equal access to physician services.

Asrar-ul-Haq, M., Raza, Z., & Akhtar, M. W. (2025). **Community development through university social responsibility: precursors and outcomes**. *Asia Pacific Education Review*, *26*(3), 581-591. https://doi.org/10.1007/s12564-023-09850-4
Since the funding of higher education has shifted from public to private modes, universities have adopted business models to finance their operations. On the one hand, social responsibility initiatives help universities attract and retain students. On the other hand, it plays a significant role in the development of society as a whole by enhancing institutional capacity and character building of students. Using social influence theory, we examined the mediating effect of university social responsibility in the relationship between precursors and outcomes using a multi-wave data from 359 university students. The results demonstrate that university social responsibility mediates between precursors (education on environmental values, education on social values, and internal management) and outcomes (student engagement and social behavior). This study contributes to the literature by providing an underlying mechanism suggesting that environmental values, educational social values, and internal management as precursors that produce positive effects on students' outcomes (engagement and social behavior).

Assefa, E. A. (2025). **Commitment to Gender Diversity Management: Satisfaction Levels in Ethiopian Public Higher Education Institutions**. *European Journal of Education*, *60*(3), e70208. https://doi.org/10.1111/ejed.70208
Diversity management, specifically gender diversity management (GDM), has increasingly emerged as a strategic priority. However, empirical research on the levels of commitment and satisfaction regarding GDM in Ethiopian public higher education institutions (HEIs) remains scarce or non-existent. This study aimed to empirically assess the commitment to and satisfaction with GDM in Ethiopian public HEIs, while also providing recommendations for improvements and insights to guide effective GDM practices. Employing a mixed-methods approach with a convergent parallel design, the study collected data from 34 respondents, including vice presidents, student deans, instructors, gender office heads and students, through semi-structured interviews. Additionally, 395 regular undergraduate students completed questionnaires. Observational methods and document analysis were also conducted. The results revealed a significant lack of commitment to and satisfaction with GDM among the selected Ethiopian HEIs, which

could adversely impact the United Nations Sustainable Development Goals (SDG) 5, focused on gender equality. Furthermore, this research contributes valuable new insights into the dynamics of commitment and satisfaction related to GDM. It is the first study of its kind to explore these issues within the specific context of Ethiopian public HEIs, highlighting the necessity for these institutions to foster greater commitment and satisfaction in GDM practices to promote diversity and inclusion effectively.

Bamberger, A. (2025). **Reconfiguring international student mobility amid geopolitical crisis: Institutional work in higher education during wartime**. *International Journal of Educational Research*, *133*, 102656. https://doi.org/10.1016/j.ijer.2025.102656
Amidst intensifying global geopolitical tensions that challenge international student mobility (ISM), this study contests the view of ISM as passively (re)shaped by external forces. Drawing on interviews with senior international education administrators in Israel during the Israel–Hamas war, it explores how ISM is actively maintained and reconfigured through purposive institutional work. Administrators perceived severe war-induced impacts across academic (research disruption), political (reputational damage, boycotts), economic (funding/resource strains), and socio-cultural (diversity) domains. These impacts spurred diverse institutional maintenance strategies, revealing significant administrator agency. Key practices included rapid resource mobilization (scholarships, housing), intensive relational work (communication, well-being support), flexible academic adaptations, and normative/symbolic work, such as reframing international students as informal ambassadors and agents of solidarity. While soft power roles are well-documented in the literature, this study indicates an affective turn: international students were framed and valued as emotional resources, whose presence and engagement were perceived to sustain resilience and morale during wartime. Beyond immediate maintenance, the findings demonstrate a significant strategic reconfiguration of ISM. Driven by the crisis, recruitment is pivoting towards diaspora communities, partnerships are being reassessed based on perceived resilience, and the overall character of ISM is shifting towards more selective, politically attuned, and ethno-nationally inflected patterns. This study illuminates the micro-practices maintaining ISM in conflict zones and offers broader insights into how internationalization adapts under conditions of acute geopolitical instability, underscoring the critical role of institutional actors.

Bamberger, A., Kim, M. J., Lee, S. S., & Yan, F. (2025). **Politicizing Mobility in the COVID-19 Pandemic: International Student Mobility in Israel, China, and the United Arab Emirates**. *Social Justice Research*, *38*(3), 290-311. https://doi.org/10.1007/s11211-025-00455-3
We critically examine the politicization of international student mobility (ISM) during the COVID-19 pandemic, focusing on Israel, China, and the United Arab Emirates (UAE). Applying Vicki Squire's framework of the politics of control and migration, we reveal how the pandemic intensified existing political tensions and inequalities, challenging depoliticized narratives of ISM. The study demonstrates how crises magnify societal organizing principles and embed mobility policies within broader struggles over national identity, economic priorities, and geopolitical strategies. In Israel, selective border reopening exposed tensions between religious and secular interests, with lobbying efforts shaping mobility outcomes. China's intensified regulation of ISM highlighted the state's efforts to leverage mobility as a tool for soft power, narrative control, and geopolitical positioning. In the UAE, private universities adapted by targeting 'permanently temporary' expatriates with tuition incentives, revealing systemic inequities within its dual-track higher education system. Our analysis underscores ISM as a dynamic and

contested field shaped by the interplay of state power, institutional strategies, and individual agency. We highlight the co-constitutive relationship between control and migration politics, demonstrating how mobility evolves across governance systems and through negotiation and resistance. These findings offer critical insights into ISM's role as a site of political contestation and its implications for equity, access, and social justice.

Baradji, É. (2025). **Combien d'élèves devant un enseignant pendant une heure de cours dans les établissements du second degré à la rentrée 2024 ?** *Note d'Information*, (25.49), 1-4. Consulté à l'adresse https://www.education.gouv.fr/combien-d-eleves-devant-un-enseignant-pendant-une-heure-de-cours-dans-les-etablissements-du-second-451029
À la rentrée scolaire 2024, si l'on tient compte des cours assurés en groupe, un enseignant est face à 21,7 élèves par heure de cours en moyenne dans les établissements du second degré, y compris les formations post-bac.

Bekele, T. A., & Amponsah, S. (2025). **Societal relevance of higher education: An Afrocentric theoretical framework**. *International Journal of Educational Research*, *133*, 102742. https://doi.org/10.1016/j.ijer.2025.102742
Recognizing the colonial legacy of African higher education, which predominantly embraced Western knowledge systems, this study calls for a paradigm shift toward incorporating African Indigenous knowledge systems to rejuvenate and sustain the sector's societal relevance. Employing philosophical methods of explication and conceptual re-engineering on African individual and communal epistemologies, an Afrocentric framework of higher education societal relevance is proposed. The framework acknowledges the multidimensional, multiscalar and dynamic nature of the phenomenon. The core thesis is that higher education societal relevance is ubiquitous-all university missions and support structures embody it. The framework is conceived around five domains each highlighting different aspects of higher education societal relevance: substantive (attuning to the what of education), methodological (the how of education), teleological (the why of education), procedural (university governance), and relational (university-society engagements). Overall, the framework aims to foster a comprehensive understanding of higher education that is responsive to Africa's unique cultural, economic, historical, and social contexts and emerging needs. It signifies a critical first step towards redefining higher education to ensure its relevance and contribution to human and societal development, and to the transformation as well as preservation of African knowledge systems. This original and novel approach challenges the conceptual and philosophical underpinnings of the colonial higher education model and aligns with decolonization movements, discourses of Pan Africanism and African renaissance, and sustainable development. Further scholarship is warranted to further qualify the framework across diverse African contexts, thereby contributing to a more contextually relevant higher education landscape on the continent.

Blank, T. H., & Wilner, S. (2025). **Can training programmes change behaviour? Age, creative behaviour, and active learning**. *International Journal of Inclusive Education*, *29*(10), 1726-1748. https://doi.org/10.1080/13603116.2023.2291530
Earlier studies provide mixed results regarding the influence of training programme on behavioural change. We draw on the transfer of training theory to explain behavioural change of 45 early childhood teachers, refugees living in the Dzaleka Refugee camp in Malawi, who attended a training programme. Our results indicate that age, creative behaviour, and their interactive effect have a positive influence on behavioural change.

Interestingly, active learning by itself had no significant influence on behavioural change. When considering the interactive effect of age and active learning, we found a positive influence on behavioural change.

Bou Zeid, M., & Abouchedid, K. (2025). **Reconceptualizing education system resilience through inclusive participation in conflict-affected societies**. *International Journal of Educational Research*, *133*, 102751. https://doi.org/10.1016/j.ijer.2025.102751
This study examines education system resilience in Lebanon as a conflict-affected society, as adapted from Duchek's (2020) resilience framework. It examines the roles and practices of the Ministry of Education, Civil Society Organizations, LGBTQ + communities, and schoolteachers in addressing protracted crises that disrupt education. The four resilience stages—anticipation, coping, adaptation, and transformation—guide the analysis of responses to educational disruptions. Data derived from focus group discussions (n = 16), interviews with key informants (n = 5), and document analysis validate these stages in a conflict-affected context. Knowledge, social resources, innovation, and governance emerged as key antecedents for strengthening education system resilience. Integrated community and institutional resilience practices emerged as vital components for anticipating and mitigating future crises that go beyond conflict-affected situations. This study has implications for policy and practice aiming to provide access to education and support educational continuity amidst crises. The findings have implications on empowering communities, amplifying the voices of marginalized communities in contributing to crisis mitigation, and facilitating knowledge-sharing aiming to strengthen education system resilience.

Bozonnet, C. (2025, juillet 18). **« Il y a une tendance claire à démarrer de plus en plus tôt » : le boom des stages et prépas d'été**. *Le Monde*. Consulté à l'adresse https://www.lemonde.fr/campus/article/2025/07/18/il-y-a-une-tendance-claire-a-demarrer-de-plus-en-plus-tot-le-business-en-plein-essor-des-stages-et-prepas-d-ete_6621884_4401467.html
Signe de la pression accrue sur l'orientation des élèves, l'offre – et la demande – de stages intensifs lors des vacances scolaires s'étoffe. Dès le lycée.

Bray, M. (2025). ***Whose visions for what learning? Perspectives, policies and practices in private supplementary tutoring*** (p. 50). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394619

Brenner. (2025). **Course-Level Evaluation of an 8-Week Calendar Implementation at a Two-Year College**. *Community College Journal of Research and Practice*, *49*(8), 532-544. https://doi.org/10.1080/10668926.2024.2307055
A Midwestern 2-year college undertook a course-level analysis of student success in courses (N = 197) two years after transitioning to an 8-week calendar. Statistical comparisons were made between course success in 16-week delivery in 2019/2020 and 8-week delivery in 2021, 2022 and where available Fall 2023. Overall success in courses changing from 16- to 8-weeks improved significantly for all students regardless of gender, race/ethnicity (Asian, Black, Hispanic, White) or age (±25). Gaps in achievement between groups either completely disappeared (age, gender) or notably declined (Black and Hispanic vs White). Individual courses were classified according to those where student success significantly improved under the 8-week calendar (15.2%), potentially but not significantly improved (9.1%), experienced no change (66.5%),

potentially declined (4.6%) or significantly declined (4.6%). Implications for evaluation procedures as well as findings of relevance to colleges considering implementing an 8-week calendar.

Brooks, R., & Rensimer, L. (2025). **Strengthening Europe from the ground up? Students' perspectives on the European Universities Initiative**. *International Journal of Educational Research*, *133*, 102710. https://doi.org/10.1016/j.ijer.2025.102710
European higher education has long served as a key component for advancing Europeanisation, most recognisably through initiatives like Erasmus, the Bologna Process, and the creation of the European Higher Education Area. The European Universities Initiative (EUI), launched in 2019, builds on this trajectory by fostering transnational alliances of universities across Europe to deepen international cooperation in education, research, and innovation. While previous scholarship on the EUI has examined the contested understandings of its scope and purpose among policy stakeholders, this study explores the perspectives of students engaged in EUI alliances. Informed by conceptual work on spatial imaginaries and space as produced through everyday social practices, the article examines how students variously perceive and enact the Initiative's aims through their engagement with their alliances. We draw on focus group data with students across three of the now 65 alliances, finding considerably diverse interpretations of the EUI, its impact, and its impediments, reflecting broader tensions around its role in consolidating a European higher education space. By centring student voices, this study contributes to understanding specifically how the EUI furthers European cooperation in higher education and how Europeanisation is experienced from below.

Brugha, M., Afzal, N., Emerusenge, A. P., Zazai, R., & Nagol, E. (2025). ***EdTech for Climate Resilience: A Rapid Evidence Review***. Consulté à l'adresse EdTech Hub website: https://doi.org/10.53832/edtechhub.1113
This Rapid Evidence Review provides a synthesis of evidence related to the use of educational technology for building climate resilience within education systems in low- and middle-income countries. The primary objective of the review is to provide educational stakeholders with an overview of how technology could be effectively leveraged in these contexts, highlighting key design considerations for and potential barriers to effective implementation. The review looked at evidence generated between 2014 and 2025 on how EdTech has or could be used to build climate resilient education systems.

Butcher, L., & Lane, S. (2025). **Neurodivergent (Autism and ADHD) student experiences of access and inclusion in higher education: an ecological systems theory perspective**. *Higher Education*, *90*(1), 243-263. https://doi.org/10.1007/s10734-024-01319-6
Higher Education (HE) can be a complicated and isolating experience for neurodivergent students. Many systemic barriers and injustices create challenges for the accessibility and inclusivity of learning environments and curriculums. However, with the appropriate accommodations, staff guided by neurodiversity-affirming practices, accessible curricula, and opportunities to connect with neurodivergent peers, it can be highly rewarding. Through 15 in-depth, lived-experience-informed interviews with neurodivergent HE students who are Autistic and/or ADHDers in Australia, we analyse experiences at different system levels. By validating the robust framework of ecological systems theory in this context, we extend the academic understanding and add to the limited research on HE experiences for this marginalised, often ignored, but important

student segment. We discover pivotal micro-systems of curricula, assessments, reasonable adjustment plans, spaces, teachers, students, and support services. Further contributions are made through the first extension of 'feedback loops' into research of HE micro-systems, and descriptions of macro and chrono-systems. With many HE systems erected and emergent to cater to the student majority, illuminating the experiences of neurodivergent students with these intersecting HE systems provides concrete insights for leadership, teachers, and support staff to improve accessibility and inclusion in HE.

Café pédagogique. (2025, septembre 1). **Bernard Lahire : « L'obsession évaluative a détourné l'école de sa fonction de transmission des connaissances »**. Consulté 1 septembre 2025, à l'adresse Le Café pédagogique website: https://www.cafepedagogique.net/2025/09/01/bernard-lahire-lobsession-evaluative-a-detourne-lecole-de-sa-fonction-de-transmission-des-connaissances/
« Comment ne pas voir que tout ce cirque de la préparation des contrôles, des examens, des concours n'a strictement rien à voir avec la qualité des apprentissages, la profondeur

Cameron, Emma, Gutierrez Bernal, M., Shoko, M., Tognatta, N., Rahman, Md. S., Ansari, A., & Chowdhury, A. (2024). ***Sierra Leone - Data-Driven Approach to Teacher Deployment*** [Text/HTML]. Consulté à l'adresse World Bank Group website: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099452307142536307
Sierra Leone - Data-Driven Approach to Teacher Deployment (English)

Chantrel, Y. ***Meilleur encadrement de l'enseignement supérieur privé à but lucratif***. , Pub. L. No. 625 (2024-2025) (2025).
Proposition de loi visant à un meilleur encadrement de l'enseignement supérieur privé à but lucratif pour mieux protéger les étudiants

Chen, C., & Yin, H. (2025). **Investigating the relationship between instructional leadership and teacher well-being: A moderated mediation analysis of PISA 2022**. *International Journal of Educational Research*, *133*, 102699. https://doi.org/10.1016/j.ijer.2025.102699
Guided by the job demands-resources model, a moderated mediation analysis was conducted to explore the relationship between teachers' perceived instructional leadership and well-being, with teachers' workload stress as the mediator and autonomy support as the moderator, using data from 46,563 secondary school teachers in the PISA 2022 survey. The results revealed that instructional leadership significantly positively predicted teacher well-being across 15 participating countries and regions, and this relationship was partially mediated by teachers' workload stress. Perceived autonomy support was found to moderate the detrimental effect of workload stress on teacher well-being. The implications of these findings are discussed.

Chen, Y., Chen, S. Y., Yuan, H., & Liu, H. (2025). **Beyond Borders: A Typological Approach to Understand Sustainability Education Governance**. *European Journal of Education*, *60*(3), e70152. https://doi.org/10.1111/ejed.70152
Sustainability education governance plays a vital role in advancing global environmental and social goals, yet its institutional forms vary widely across countries and regions. While international frameworks such as SDG 4.7 and UNESCO's Education for Sustainable Development (ESD) provide broad objectives, the ways in which

sustainability education is governed—from policy design to stakeholder engagement—remain fragmented and under-theorised. This paper develops a three-dimensional typological framework to classify and analyse governance configurations in sustainability education, based on (1) the degree of policy centralisation, (2) the level of stakeholder inclusion and (3) the dominant regulatory-market orientation. Through this framework, we identify recurring governance patterns—such as state-centric regulation, participatory co-governance and hybrid public-private models—each of which entails distinct strengths and trade-offs in terms of coherence, adaptability and equity. Drawing on illustrative cases, we demonstrate how these configurations shape the implementation, funding and legitimacy of sustainability education. The typology serves as both a diagnostic tool for assessing existing systems and a heuristic for designing governance arrangements that are context-sensitive, inclusive and resilient. Rather than advocating a single best model, we argue for flexible and adaptive governance frameworks that acknowledge the dynamic, contested nature of sustainability education and respond to evolving socio-environmental challenges. We conclude by identifying future research directions, particularly the need to examine governance transitions and cross-sectoral coordination over time.

Cheval, B., Desplanques, F., & Maltagliati, S. (2025, août 31). **Bouger pour mieux apprendre : Comment lutter contre la sédentarité à l'école**. https://doi.org/10.64628/AAK.d9whvaddw
L'école a longtemps opposé le corps et l'esprit. Or l'activité physique favorise les apprentissages, dit la recherche. Comment changer la donne dans les classes ?

Crato, N., & Patrinos, H. A. (Éd.). (2025a). ***Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022***. https://doi.org/10.1007/978-3-031-69284-0

Crato, N., & Patrinos, H. A. (2025b). **PIRLS 2021 and PISA 2022 Statistics Show How Serious the Pandemic Losses Are**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 1-15). https://doi.org/10.1007/978-3-031-69284-0_1
PIRLS 2021 and PISA 2022 are the first international large-scale surveys that assessed students worldwide after the COVID-19 pandemic school closures. As expected, they reveal devastating learning losses for students of most countries and regions although in a few of them average results were able to progress despite the pandemic. For many countries and regions, the recent student learning losses add to previous losses. This chapter discusses these setbacks and highlights the main conclusions from different countries' experiences. Unsurprisingly, the key factors are the curriculum, which needs to be streamlined and made more rigorous and better structured; the assessment, which needs to be regular, frequent, and to combine national standardized testing with formative tools; and the targeted support for struggling students.

Croucher, G. (2025). **Academic Democracy in the Age of Corporate Governance: Addressing Challenges to Widening Participation in University Governance**. *Higher Education Quarterly*, *79*(3), e70043. https://doi.org/10.1111/hequ.70043
Forms of academic democracy, such as shared, collegial and participatory governance where students and staff have a substantive role in institutional oversight, have long been an aspiration at many universities and colleges worldwide. Yet, concrete efforts to realise

self-governance often prove incompatible with the legal and fiduciary requirements of trustee boards, rector councils and the like governing contemporary higher education institutions. This has led to significant controversy at times over how universities are controlled and the extent to which their communities can have a meaningful role in governing them. It raises the question of whether widening democratic participation in university governance is possible and desirable. This conceptual study examines three core challenges to furthering academic democracy that include ambiguity over who can have legitimate oversight of academic and other matters, common logistical challenges in integrating staff and students into governance processes, as well as the limits that external influences can place on what is possible for internal governance. Drawing on deliberative democratic theory, this paper explores practical approaches to navigating these challenges through interlinked governance structures that can maximise participation and ensure a reasonable expectation of meaningful decisions within the constraints of corporate governance.

Crowley, C. B., Lewis, J. M., Yu, M., & Coloma, R. S. (2025). **Local work on global educational justice: Three Detroit projects reimagining university-school partnerships**. *International Journal of Educational Research*, *133*, 102673. https://doi.org/10.1016/j.ijer.2025.102673
In this article, we describe three university-school partnerships (TeachDETROIT, Metro Detroit TRUE Project, and Archives in the Classroom and Community) that are designed to constitute democratic micro-institutions in Detroit, Michigan. These three partnerships represent the university's commitment to its urban mission, and endeavor to practice "radical neighborliness" as a way to build alternative institutions that are local, equity-focused, and contributing to human improvement. We argue that such partnerships can create democratic Third Spaces, rooted in mutual respect and equity. These spaces offer hope and demonstrate that meaningful change is possible, even amid educational uncertainties and political shifts. We also discuss how participants in these partnerships engage with and learn about local contexts as instances of the global, emphasizing the mutual exchange of knowledge and the interplay between local and global perspectives. This study contributes to the growing literature on equitable university-school partnerships by demonstrating how intentionally designed collaborations can disrupt traditional power dynamics and create sustainable educational impacts in urban ecologies.

D'Addio, A. C. (2025). ***Non-state actors in ECCE: a complex landscape*** (p. 66). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394825

de Lescure, E., & Porte, E. (2025). **Les orientations pédagogiques des universités populaires, un horizon politique ?** *Tréma*, (63). https://doi.org/10.4000/13r59
L'émancipation par le savoir et pour l'action constitue, depuis leur émergence, le point commun des organisations associatives que sont les universités populaires (UP). Les UP se caractérisent par une grande diversité d'activités, allant des conférences à des cours, des ateliers et sorties culturelles mais aussi parfois des activités à caractère social. On peut identifier trois périodes de floraisons d'UP : leur émergence à la fin du XIXe siècle a été aussi forte qu'éphémère, les années 1970 ont vu éclore un premier retour, suivi d'un second plus intense durant les décennies 2000 et 2010. Cet article propose de s'arrêter sur ces différentes périodes, les tensions qui les ont traversées et les deux réseaux nationaux qui ont émergé à l'occasion des dernières floraisons. Il s'attachera en

particulier aux objectifs déclarés et aux intentions pédagogiques des personnes qui animent et font vivre les UP d'aujourd'hui. Lorsqu'on examine les discours que les UP tiennent sur leurs activités pédagogiques, elles se distinguent par leur orientation plus ou moins critique – certaines UP adoptent une posture critique et engagée quand d'autres privilégient une neutralité politique et l'accès universel aux savoirs – et la mise en avant ou non de méthodes dites « participatives ». Pourtant, les pratiques concrètement mises en œuvre semblent les rapprocher plus que les discours ne le suggèrent.

Depoil, M., Groeninger, F., & Vennin, L. (2025). **Entre sciences sociales et pratiques militantes : l'éducation populaire au prisme de la radicalité**. *Tréma*, (63). https://doi.org/10.4000/13r4x
Introduction On assiste à l'émergence d'un consensus scientifique non seulement sur l'absence d'une définition commune et partagée de l'éducation populaire, mais plus encore sur le caractère normatif voire politique de toute tentative de circonscription ou définition. Si bien que l'on parle souvent d'une « définition introuvable » : l'expression signale combien ce travail de mise en mots est difficile, imparfait, et surtout combien la circonscription même du champ dépasse le cadre discursif o...

DEPP. (2025a). ***L'éducation nationale en chiffres, édition 2025*** (p. 13). Consulté à l'adresse DEPP website: https://www.education.gouv.fr/l-education-nationale-en-chiffres-edition-2025-450963
Cette synthèse des caractéristiques et des tendances du système éducatif français présente les principaux chiffres clés pour l'année scolaire en cours : population scolaire, effectifs d'enseignants, coût de l'éducation, part des secteurs public et privé, diplômes délivrés, insertion professionnelle des jeunes.

DEPP. (2025b). ***Repères et références statistiques 2025*** (p. 470). Consulté à l'adresse DEPP website: https://www.education.gouv.fr/reperes-et-references-statistiques-2025-450954
Repères et références statistiques (RERS) est une publication annuelle éditée depuis 1984 par la DEPP et le SIES, les services statistiques ministériels chargés de l'Éducation nationale et de l'Enseignement supérieur et de la Recherche.

Derrick, G. E., Robson, J., Oancea, A., Xu, X., & Stan, M. R. (2025). **The gravity of the status quo: the response of research governance to system-level shocks**. *Higher Education*, *90*(1), 89-108. https://doi.org/10.1007/s10734-024-01309-8
Using interviews with global research stakeholders, this research explores how stakeholders within research-system-level research governance organisations conceptualised, responded to, and reasoned the realities of disruption caused by the COVID-19 pandemic, and how they positioned procedural changes to their governance mechanisms. Given that system shocks present critical challenges to established practices and embedded institutional norms, we use neo-institutional theory as a heuristic device to examine the relationship between the exogenous shock of COVID-19, trajectories of institutional norms and cultures, and the role institutional stakeholders play in managing responses. Across all the research systems studied (with particular focus on the UK, Australia, Norway, New Zealand, Hong Kong SAR, and Italy), participants were concerned about how the shock provided by COVID-19 had both revealed and entrenched deep inequalities inherent in their research systems and globally. There were tensions in how participants centralised the concept of the 'normal' as part of a process of recovery permeating all system-level responses, often with a sense of wistful affection

for pre-pandemic structures, modes of operation, and embedded norms. Aspirations for short-, medium,- and long-term plans for research change echoed a dependency on returning to 'normal' and an inevitable pull of the norms of the pre-pandemic status quo. Despite the desire to 'build back better', the pull of institutional norms and the gravitational force of the status quo appeared too strong for meaningful change in recovering research systems.

Dickson, M., Maguire, S., Ventura Alfaro, M. J., Laczik, A., Dabbous, D., Newton, O., & Thomson, D. (2025). ***Keeping young people in learning until the age of 18 – does it work?: Evidence from the Raising of the Participation Age (RPA) in England*** (Version 1.0). https://doi.org/10.5281/ZENODO.16410521
Implemented ten years ago in England, the Raising of the Participation Age (RPA) placed a duty on young people to remain in learning (although not confined to staying on at school) until their 18th birthday. This report presents the findings from a research project examining the design, implementation and impact of the RPA on participation, retention and achievements in post-16 learning and subsequent labour market outcomes. Going beyond pure impact evaluation, the researchers explore the design of the policy from conception through to implementation and assess the extent to which it has achieved its objectives.

Dong, Y., Wu, J., & Yu, N. (2025). **Leading for Research Excellence: Presidential Capabilities and Institutional Performance in Chinese Higher Education**. *Higher Education Quarterly*, *79*(3), e70032. https://doi.org/10.1111/hequ.70032
Understanding how institutional leadership influences research productivity is crucial for advancing higher education policy and practice, yet empirical evidence remains limited in non-Western contexts. Drawing on upper echelons theory and a longitudinal dataset spanning 20 years (2000–2019) of 392 presidential appointments across Chinese universities, this study examines how presidential capabilities affect institutional research performance. Our findings demonstrate that presidential capabilities—measured through educational background, international experience, and academic achievements—significantly enhance research output, with effects varying across institutional contexts. The impact is most pronounced in second-tier research universities and shows stronger effects in economically developed regions and centrally administered institutions. These results contribute to understanding leadership effectiveness in higher education by highlighting how institutional contexts moderate presidential influence, offering valuable insights for leadership selection and development in higher education institutions.

Douaihy, L., & Stannard, L. (2025). **Scaling and adapting digital personalised learning in crisis-affected areas: a comparison of the Can't Wait to Learn programme in Lebanon and Ukraine**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vx
Can't Wait to Learn is a digital personalised learning programme designed for children in crisis-affected settings, supporting access to quality education through contextualised, curriculum-aligned content. This personalised, self-paced, game-based platform developed by War Child is not just an education tool — it's a lifeline for children facing the most difficult situations, whether conflicts or climate shocks. This article examines its implementation and scaling in Lebanon and Ukraine, highlighting its adaptability to

different modalities and contexts. It highlights critical enablers such as context-driven design, educator support, and strong partnerships.

Drelick, A. M., Freedman, J. E., McCann, N., & Morettini, B. (2025). **Examining the impact of disability studies in education-infused curriculum on attitudes towards inclusion in a U.S. secondary teacher education programme**. *International Journal of Inclusive Education*, *29*(10), 1687-1705. https://doi.org/10.1080/13603116.2023.2289569
This paper examines the impact of Disability Studies in Education (DSE) aligned curriculum at a United States university on the attitudes of general education pre-service teachers toward inclusive practices. The study employed a pretest-posttest design to compare the attitudes of teacher candidates at the beginning and end of a course that focused on inclusive instruction. Findings indicate that the course positively influenced students' attitudes towards inclusion, particularly in their affective beliefs. Students identified several DSE topics and their cooperating teachers as influential in shaping their inclusive attitudes. We discuss implications of the findings on the development of courses aimed at fostering inclusive attitudes and supporting teachers to navigate the tension between school practices and perspectives in DSE.

Dubigeon, Y. (2025a). **L'éducation populaire : quel(s) projet(s) politique(s) ?** *Tréma*, (63). https://doi.org/10.4000/13r4w
Le double flou qui entoure les concepts d'éducation populaire et d'émancipation rend l'exercice d'éclaircissement de ces termes et des pratiques qui y sont associées particulièrement périlleux. Approcher l'éducation populaire par l'angle de sa dimension politique permet cependant d'aborder l'objet avec une réflexivité historique utile aux chercheur·se·s comme aux praticien·ne·s. Nous proposons donc dans cette communication un essai d'éclairage sociohistorique des idées et pratiques d'éducati...

Dubigeon, Y. (2025b). **Quelle place pour l'éducation populaire politique ?** *Tréma*, (63). https://doi.org/10.4000/13r4z
Cet article propose de revenir sur la minoration des courants « politiques » au sein de l'historiographie classique de l'éducation populaire. À travers une démarche socio-historique, il formule des propositions pour élargir dans ce sens la compréhension du champ, et tâche de revenir sur les courants qui font de l'émancipation et de l'articulation entre conscientisation et action collective l'axe central de leurs idées et pratique d'éducation populaire.

Duportail, C., Caseau, A.-C., & Mofakhami, M. (2025). **Les actions menées par le ministère de l'Enseignement supérieur et de la Recherche pour lutter contre les formes de la précarité étudiante**. *Revue française des affaires sociales*, *252*(2), 327-337. https://doi.org/10.3917/rfas.252.0327

Duverger, T. (2025, août 28). **L'ESS en quête d'une meilleure place à l'université**. Consulté 29 août 2025, à l'adresse Alternatives Economiques website: https://www.alternatives-economiques.fr/timothee-duverger/less-quete-dune-meilleure-place-a-luniversite/00115893
Il y a 130 ans, le comte de Chambrun inaugurait à Paris le Musée social pour encourager la recherche de solutions à la question sociale qui, en pleine rév

Emeka, E. T., & Asongu, S. A. (2025). **Research Productivity and Africa's Productive Capacity: The Moderating Role of Government Education Expenditure**. *Higher Education Quarterly*, *79*(3), e70039. https://doi.org/10.1111/hequ.70039
This study provides empirical insights into the impact of research productivity on Africa's productive capacity, contingent upon government education expenditure. Using a panel of 52 African countries from 2010 to 2022, the dynamic system generalised method of moments (GMM) estimation technique was employed as a robust alternative to Pooled OLS. The analysis yielded several key findings. First, the system GMM results emphasise the importance of aligning research and development efforts with educational investments, as the effect of research productivity on productive capacity is influenced by government education expenditure. Second, governance quality, per capita income and industrial value-added emerged as key drivers of productive capacity, while natural resource endowment was found to be a limiting factor. Based on these findings, the study highlights the need for increased government education funding, collaborative research initiatives, professional development for educators, infrastructure investment, public-private partnerships, open data initiatives and technology integration to boost research productivity and enhance Africa's productive capacity. The study discusses how the research can be improved with other non-linear techniques.

Eren, F. C., & Aydın, S. (2025). **Bootstrapping Efficiency in Education: A Multi-Stage DEA Analysis With TIMSS Data**. *European Journal of Education*, *60*(3), e70159. https://doi.org/10.1111/ejed.70159
Ineffective use of resources and suboptimal management at the school level can detrimentally affect human resource development and labour market outcomes. Therefore, efficiently managing human and physical resources is crucial to transforming school inputs into improved educational outcomes. This study assesses the effectiveness of educational systems worldwide and explores the extent and implications of resource and human management inefficiencies at an international level. It focuses specifically on the portion of the TIMSS exam administered to 4th graders. The objective is to uncover gaps in contextual factors that influence learning and identify areas of inefficiency. The study employs non-parametric bootstrap data envelopment analysis to calculate relative efficiency scores for different countries. Countries that utilise educational inputs in mathematics and science most effectively include Denmark, Germany and Hungary. These regions operate near optimal levels, nearly maximising input utilisation to produce the expected educational outputs. Conversely, Montenegro, the United Arab Emirates and Bosnia-Herzegovina are the least efficient. Further analysis using Tobit regression in the second stage of the study suggests that resource utilisation and management significantly impact the input–focused efficiency of schools in various countries. The findings reveal that the schools' inefficiencies arise from a lack of mathematics and science education resources and poor management and utilisation.

Ernas, S., & Taşkın, P. (2025). **Vocational education for refugee students in Türkiye: navigating social exclusion, poverty, and precarity in a stratified policy context**. *International Journal of Educational Research*, *133*, 102758. https://doi.org/10.1016/j.ijer.2025.102758
This study explores the experiences of refugee students enrolled in Vocational Training Centers (VTCs) in Türkiye, illuminating how economic imperatives and legal frameworks shape their educational trajectories. Drawing on qualitative data from students, parents,

and educators, it finds that VTCs function primarily as pathways for rapid labor market integration, rather than fostering holistic development, critical thinking, and democratic engagement. Participants describe educational environments marked by limited academic content, irregular school attendance, and exclusionary workplace practices, which collectively reinforce social stratification and constrain opportunities for mobility. While VTCs offer refugee youth pragmatic responses to immediate economic pressures, this narrow focus risks reducing education to a tool of short-term survival, sidelining broader social and civic goals. The study calls for inclusive and critical pedagogical approaches that empower refugee students for meaningful civic and economic participation in society. Policy recommendations include aligning vocational education with knowledge-based models responsive to both labor market demands and the specific social integration needs of refugee students, strengthening pathways to higher education, and fostering collaboration between educational institutions and labor market actors. Ultimately, this study suggests that reimagining VTCs as inclusive, future-oriented spaces is crucial for transcending purely utilitarian paradigms and better promoting social justice and democratic participation for refugee youth.

Fan, X., & Qin, H. (2025). **Differential Effects of Research Funding Types on Academic Career Achievements**. *European Journal of Education*, *60*(3), e70194. https://doi.org/10.1111/ejed.70194
Amid growing reliance on performance-based governance in global higher education, research funding plays a critical role in shaping academic trajectories. This study investigates the differential effects of project-based and talent-related funding on scholarly achievements in China, drawing on Bourdieu's theory of capital. Using a dataset of 17,134 SCI-indexed publications and funding records from E University, we employed stepwise regression models to assess the impact of funding types on research output, collaboration, promotion, talent titles, and technological awards. Findings reveal that project-based funding primarily boosts research productivity and publication quality, strengthening cultural capital. Conversely, talent-related funding is more strongly associated with academic mobility, broader collaboration networks, and institutional recognition, key indicators of social and symbolic capital. For instance, talent fund recipients were 34.2% more likely to be promoted to professorship and 56.9% more likely to secure national talent titles. These results demonstrate how funding schemes act as mechanisms for stratifying academic opportunity, rather than just financial instruments. This study offers critical insights into designing funding policies that foster more balanced and inclusive academic development across diverse higher education systems.

Fauvel, M., & Preston, M. (2025). **Dialogue et regards croisés en éducation populaire : co-création et pédagogie au sein d'une résidence artistique de territoire**. *Tréma*, (63). https://doi.org/10.4000/13r5d
L'article « Dialogue et regards croisées en éducation populaire : co-création et pédagogie au sein d'une résidence artistique de territoire » explore les pratiques artistiques coopératives socialement engagées et leur lien avec l'éducation populaire. Écrit à quatre mains par Mikaël Fauvel, directeur de la MJC André Malraux de Montbard et Marie Preston, artiste invitée en résidence à la MJC et enseignante-chercheuse à Paris 8, il aborde les questions artistiques, éducatives et politiques, mettant en lumière l'importance de ces pratiques artistico-pédagogiques pour le renouveau démocratique et la transformation sociale, et plus spécifiquement comment cette alliance participe à

inscrire son projet dans des formes d'éducation populaire à la fois mieux ancrées et plus engagées.

França, T., Nada, C., & Lyrio, B. (2025). **Forcibly Displaced to an Offbeat Destination: Syrian International Students' Experiences in Portugal**. *European Journal of Education*, *60*(3), e70218. https://doi.org/10.1111/ejed.70218
The diversification of international student mobility includes individuals fleeing conflict, persecution, and climate-related disasters. Within these complex dynamics, traditionally offbeat destinations—such as Turkey and Portugal—have emerged as strategic options for forcibly displaced students. Drawing on semi-structured interviews conducted with Syrian international students enrolled in Portuguese higher education (HE), we first examine how these students perceive Portugal as a viable alternative for pursuing HE while escaping the conflict. Second, we analyse their everyday academic and social experiences, analysing how these are embedded in broader 'survival strategies' shaped by displacement. Our findings reveal a paradox within the Portuguese international education framework. Although the country presents itself as an avant-garde actor in facilitating forcibly displaced students' access to HE through targeted policies and partnerships, HE institutions lack adequate mechanisms to support their long-term academic and social integration. This disconnect undermines Portugal's potential as a truly inclusive host, leaving the country positioned as merely a survival-strategy destination. We argue that despite the official support and assistance from the government, the burden of integration falls disproportionately on the students themselves, whose educational and social success depends mainly on their agency.

Gabi, J., & Chikwa, G. (2025). **Time to (Re-)think-Feel 'Quality' in Higher Education Learning and Teaching**. *Higher Education Quarterly*, *79*(3), e70036. https://doi.org/10.1111/hequ.70036
This article proposes (re-)thinking-feeling the current Western-centric metrics-driven measurement of 'quality' in learning and teaching in higher education. We argue that ensuring 'quality' in learning and teaching is an undeniable imperative, as it not only cultivates possibilities for students to think critically and engage imaginatively in an ever-shifting global environment. The challenge is not only the measurement but the confusion between what is measured and what is experienced and the neoliberal marketisation regime of higher education (HE) that has transformed institutional priorities, connecting 'quality' and the performance metrics that underpin it. Conversations with five academics who participated in this study within the UK context, reveal a consensus that applying a standardised, 'one-size-fits-all' measurement of 'quality' in learning and teaching in higher education is fraught with difficulties. Each discipline must embrace tailored, contextually appropriate, and discipline-specific approaches to conceptualising and evaluating 'quality'. We argue that Ubuntu ethico-onto-epistemological philosophy and praxis, decoloniality and posthumanism can help us think about 'quality' differently, enabling ways to resist colonial paradigms and neoliberal logic and their impact.

Gajderowicz, T., & Jakubowski, M. (2025). **Poland: Education During and After COVID-19 Pandemic and Educational Reforms**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 121-133). https://doi.org/10.1007/978-3-031-69284-0_9

The COVID-19 closures lasted at least 26 weeks in Poland, longer than in most EU countries. The Polish government's response revealed inadequacies in planning and execution. Evidence from international and national studies shows that the related achievement decline is equivalent to at least one year of education and probably more immense for some students. We calculate that the lower estimate of the achievement decline is associated with reduced GDP growth by 0.35% points. The estimated wage loss per student over a 45-year working life sums up to an economic loss of 7.2% of Poland's 2021 GDP.

García-Cano Torrico, M., Jiménez Millán, A., & Hinojosa Pareja, E. F. (2025). **Talking for the sake of talking? Imagining inclusive universities in Spain through their leaders**. *International Journal of Inclusive Education*, *29*(11), 2019-2033. https://doi.org/10.1080/13603116.2024.2335377
Inclusion in higher education is approached by international entities as an unavoidable commitment that is materialised, to a large extent, in university mission statements through purposeful language. Spain, given its greenness regarding the development of inclusive university policies, provides a good example of such rhetoric. The proposals and interpretive frameworks on which the inclusive university project is based are explored via interviews with 62 leaders (individuals occupying an ambassador or management role) from 9 Spanish universities. The present study reveals that rhetoric about the way in which universities are converted into inclusive institutions portrays highly different outcome orientations when placed in specific political proposals. Three different standpoints are identified in the present study, which are linked to specific areas connected to the institutionalisation of inclusive projects: continuity (for access and specific services), expert (in training, awareness and curriculum) and transformative (philosophy, exercise of leadership, participatory culture and community projection). The present research contributes to the study and analysis of the different meanings adopted by inclusive university projects in the international context, stemming from the different, non-sterile, political models on which they are based.

Global Education Monitoring Report Team. (2025). ***Aid to education: time for tough decisions*** (p. 1-16). Consulté à l'adresse UNESCO website: https://doi.org/10.54676/UYML4245

Gomendio, M. (2025). **Spain: The Response of the Education System to the COVID-19 Pandemic: How LNOB (Leaving No-One Behind) Got Lost in Translation**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 171-188). https://doi.org/10.1007/978-3-031-69284-0_12
Historically the evidence from international surveys shows that Spanish students have levels of performance below the OECD average, particularly in maths, which have followed a flat line for over a decade (from 2000 onwards) showing a complete lack of progress until some improvements took place around 2015. When compared to other countries, Spain has very few excellent students. This flatness has been wrongly interpreted as a signal that the Spanish education system has sacrificed quality for the sake of equity. Nothing could be further from the truth. The most distinctive feature is the high rate of early school leaving, which represents the worst kind of inequity. During and after Covid-19 student performance declined despite short school closures. The policy response to the pandemic was to lower standards, leading to negative consequences. During the state of alarm, central government decreed that grade repetition was

forbidden, all students should promote to the next grade and teachers should give their students higher grades. These apparently temporary measures became the new normal after the latest reform was approved. The result was grade inflation on a major scale. Thus, over the last years teachers' grades have become higher, while international surveys clearly show declines in levels of performance. Such complacency at the national level will prevent any improvements. These changes have had a greater impact among secondary students since it is at this stage that grade repetition used to be most common and students who failed several subjects could not promote or obtain degrees. The new model has created a mirage in which teachers' grades have become disentangled from true levels of performance. The idea that this would help students who suffered the greatest learning losses is just plain wrong, since those students will not be correctly identified and will not receive the support they need. In addition, the illusion created by the levels of grade inflation achieved, generate the false impression that levels of performance are improving, and therefore policies are having a positive impact, when ILSAs tell us the opposite.Finally, there are two rich regions which in the last cycles have experienced the steepest declines. Catalonia and the Basque Country have strong pro-independence movements which have identified education as a great lever to strengthen national identities. As part of these nationalistic politics, schools teach in the co-official languages exclusively, treating Spanish as a foreign language. In such cases the proportion of students who take the test (PISA, PIRLS and TIMSS) in a language different from that spoken at home is over half of the student population, most of them Spanish students who speak Spanish at home. Clearly such policies harm the ability of students to learn.

Granger, N., & Tardif, J. (2025). **La pénurie des enseignants au Québec : vers des changements de politiques**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wn
Au Québec, les politiques ministérielles ont été assouplies pour soutenir la professionnalisation et la certification professionnelle des enseignants sans brevet. Ces changements visaient à favoriser l'accessibilité à la formation de ces personnes qui bénéficient d'une tolérance de recrutement. Parmi les différents enjeux, la méconnaissance de la reconnaissance des acquis et des compétences extrascolaires limite les admissions en contexte universitaire et nuit à l'optimisation du parcours, pour les personnes en situation d'emploi qui doivent conjuguer travail, études et responsabilités familiales. Une « matrice virtuelle » a été créée pour soutenir le développement d'un portfolio utilisable pour la reconnaissance des acquis et des compétences et en phase avec les compétences requises pour enseigner.

Grannäs, J., Frelin, A., Lorentzi, K., & Bergström, M. L. (2025). **Designing and building safer schools using two visual methods for teacher evaluation**. *International Journal of Educational Research*, *133*, 102721. https://doi.org/10.1016/j.ijer.2025.102721
Ensuring safety in school environments is a fundamental right for children, essential for fostering learning, well-being, and inclusivity. This study examines how physical design, organizational structure, educational upbringing, and social dynamics interact to influence safety in schools. Given that adult presence and professional judgments are essential to ensuring students' right to safety, this study analyses teachers' evaluations using two visual methods to explore how such rights are practically interpreted and enacted in school spaces. Using two complementary visual methods, Mapping and Diamond Ranking, teacher evaluations were analyzed to identify critical factors shaping

perceptions of safety. The findings suggest the importance of adult presence, clearly defined spaces, and a sense of ownership in creating safe environments. Conversely, poorly designed areas, such as corridors and changing rooms, were associated with unsafety due to privacy concerns and inadequate supervision. By adapting Gislason's school environment model to include dimensions of safety, this study offers a framework to understand how design and social factors intersect in shaping safe schools. The findings may provide insights for architects, planners, and educators seeking to foster safer and more inclusive school environments that support educational outcomes.

Grasperge, A. (2025). **Quand l'impératif scolaire s'invite dans le projet de l'éducation populaire**. *Tréma*, (63). https://doi.org/10.4000/13r56
Cet article met l'accent sur les enjeux de positionnement dans le cadre d'un dispositif d'accompagnement à la scolarité, à l'échelle d'une association d'éducation populaire. Une analyse des discours et des pratiques in situ permet de mettre en lumière les interactions entre parents et acteurs associatifs, ayant pour enjeu de concilier objectifs scolaires et autonomie du projet politique de l'association. Il s'agit alors de comprendre comment peuvent s'articuler, sur le terrain, les tensions entre logiques d'instrumentalisation et autonomie des structures d'éducation populaire.

Grenet, J., & Landais, C. (2025). **Éducation : comment mieux orienter la dépense publique**. *Les notes du conseil d'analyse économique*, (84), Mai 2025. Consulté à l'adresse https://cae-eco.fr/static/pdf/cae084-education-250514.pdf
Avec près de 180 milliards d'euros engagés en 2022, l'éducation constitue l'un des premiers postes de dépense publique en France. Pourtant, les résultats du système éducatif demeurent en retrait au regard de cet effort financier : les performances des élèves, en particulier en mathématiques, se dégradent, et les inégalités sociales sont parmi les plus marquées de l'OCDE. À ce constat s'ajoute une baisse durable des effectifs scolaires liée au choc démographique, ouvrant une opportunité inédite pour repenser l'usage des moyens alloués à l'éducation. Cette Note propose une lecture de la dépense publique d'éducation à travers le prisme d'un nouvel indicateur, l'indice d'efficacité de la dépense publique (EDP), qui mesure le rendement social net de chaque euro investi. Loin de se substituer à la délibération démocratique, cet outil vise à éclairer les choix budgétaires en comparant différentes politiques éducatives selon leur coût et leurs effets sur le bien-être des bénéficiaires.

Guba, K., Gerashchenko, D., & Zheleznov, A. (2025). **Reordering international ties: Russian universities' institutional responses to geopolitical tensions**. *International Journal of Educational Research*, *133*, 102747. https://doi.org/10.1016/j.ijer.2025.102747
This study investigates the impact of geopolitical realignments and state-imposed priorities on the international engagement of Russian universities in the context of heightened global tension. Focusing on the period surrounding Russia's invasion of Ukraine in February 2022, the research explores how universities align with state-directed categorization of countries as « friendly » or « unfriendly. » A dataset comprising 159,824 news items from university websites and 3,594 from the Ministry of Higher Education and Science's website, was used for automated text analysis to identify patterns in country mentions across 92 institutions. By comparing participants in the Russian Academic Excellence Initiative (Project 5-100) with other institutions, this study underscores the heterogeneity of responses within the Russian higher education system. The findings demonstrate a marked rhetorical shift in the international engagement strategies of

Russian universities, with mentions of « friendly » countries increasing substantially and those of « unfriendly » countries declining sharply post-February 2022. Project 5-100 universities exhibit stronger responsiveness to geopolitical shifts, as demonstrated by their increased focus on "friendly" countries and reduced engagement with "unfriendly" nations post-February 2022, even at the expense of their previously established international connections. This study contributes to the literature on higher education internationalization by illustrating how universities navigate competing pressures from global norms and local state policies, particularly in authoritarian contexts where coercive forces dominate.

Guez, A., Voisin, C., & Piacentini, M. (2025). ***Accommodating students with special education needs in PISA: Results from an observational pilot study*** (OECD Education Working Papers N° 332; 332e éd.). https://doi.org/10.1787/256c6e12-en

Guillemot, F., Lacroix, F., & Nocus, I. (2025). **Amount of instructional and inclusion time for children with disabilities in France**. *International Journal of Inclusive Education*, *29*(10), 1781-1796. https://doi.org/10.1080/13603116.2024.2303137
The aim of this research is to study the actual situation of the inclusion of children with disabilities in France. The parents of 552 children with disabilities, aged between 3 and 18, were interviewed about the amount of instructional and inclusion time of their child. Inclusion time refers to instructional time spent with non-disabled peers. The parents also specified the nature and severity of their child's disability, the potential difficulties linked to the child's behaviour using the Strengths and Difficulties Questionnaire (SDQ), the child's academic level and various socio-demographic variables. The study shows that the amount of instructional time of children with a disability is significantly lower than that of non-disabled children. Children with an intellectual disability or with ASD (Autism Spectrum Disorder) have significantly less instructional time than children with a motor disability, dys-disorder or ADHD (Attention Deficit/Hyperactivity Disorder). An important number of hours of inclusion is associated with a high academic level, particularly in mathematics. The higher the total score of emotional difficulties is, the lesser the child is schooled and included; conversely, a high score of pro-social behaviour is associated with more hours of instruction, after controlling the other variables. Finally, the parents' socio-professional category has an impact on instructional time and even more so on inclusion time, in favour of children with an advantaged background.

Guzmán-Valenzuela, C., Chiappa, R., & Gómez-González, C. (2025). **Transforming regional higher education: the decolonising role of Indigenous-inspired universities in Latin America**. *International Journal of Educational Research*, *133*, 102731. https://doi.org/10.1016/j.ijer.2025.102731
This paper examines the transformative role of Indigenous-inspired universities in Latin America within the broader context of higher education and decolonial thinking. This term encompasses a variety of institutions, including both state-recognised and grassroots, autonomous ones. Despite their differences in origin and structure, these institutions are united by their commitment to Indigenous knowledge systems, languages, and community-centred governance. Using the modernity/coloniality framework, the paper explores how 35 such institutions navigate epistemic tensions between Indigenous worldviews and dominant academic norms. Drawing on crosscountry mapping of such universities, document reviews and in-depth interviews with representatives from the Universidad Veracruzana Intercultural in Mexico and the Universidad Ixil in Guatemala,

the analysis reveals the strategies these institutions use to address these tensions. It examines their missions, governance models and operational challenges, focusing on how they create hybrid and contested spaces that both accommodate and resist hegemonic epistemic and academic frameworks. The findings demonstrate that these spaces encourage epistemic insurgencies and disrupt hierarchical knowledge systems, providing opportunities for alternative approaches to knowledge and existence. The study highlights the diversity of Indigenous-inspired universities. While state-recognised institutions often face tensions between cosmetic reforms and systemic transformation, grassroots initiatives pursue radical autonomy, though they also confront challenges such as financial fragility and limited recognition. Walsh's concept of « cracks » frames these universities as sites of resistance within dominant systems, where decolonial struggles unfold at multiple levels, revealing the complexity and plurality of epistemic re-existence.

Hadar, L. L., & Baharav, H. (2025). **University-school partnership in education as a context for teacher professional development**. *International Journal of Educational Research*, *133*, 102693. https://doi.org/10.1016/j.ijer.2025.102693
Teachers' professional development is widely recognized as essential for instructional improvement (Darling-Hammond, Hyler, & Gardner, 2017), teacher retention (Ingersoll & Strong, 2011), and student learning (Kennedy, 2016). University–school partnerships provide a key structure for supporting not only pre-service teacher education (Zeichner, 2010) but also ongoing professional development across teachers' careers (Grossman, Wineburg, & Woolworth, 2001). Yet little research has examined how the contextual factors and conditions that shape university–school partnerships influence these professional-development opportunities. This qualitative study examined how participation in a research-focused university-school partnership promoted teachers' professional development and growth. We conceptualize the partnership as a research-practice partnership, emphasizing the centrality of collaborative, research-driven inquiry into pedagogy within the university-school partnership framework. Aligning with research on effective professional development, the study highlights university-school partnership as a supportive environment for teacher learning. Qualitative thematic analysis of data from interviews with 25 teachers and 14 school principals, meetings documentation, and reflective summaries of teachers and school principals' experiences, yielded three themes: enhanced pedagogical practice, personal-professional growth, and school culture of learning through research. The findings underscore the significant role of research-focused university-school partnership as a framework for teachers' professional learning, and emphasize its potential outcomes across individual and organizational dimensions in schools. We conclude that these partnerships position teachers as equal collaborators in the co-construction of knowledge, thus empowering them as professionals and fostering the sustainability of educational innovations.

Haelermans, C., & Baumann, S. (2025). **The Netherlands: Comprehension of Basic Skills and Covid-19**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 105-119). https://doi.org/10.1007/978-3-031-69284-0_8
The PIRLS and PISA results that were published in 2023 severely shook things up in the Netherlands and reinforced the need for sustainable educational policy improvements. In this chapter, we show examples of how educational interventions are accompanied by structural monitoring based on national assessment data on school performance for mathematics and reading comprehension for pupils in primary schools in the

Netherlands. From the analyses it becomes clear that both the national data as well as the international comparisons done by PIRLS and PISA show worrisome downwards trends in pupils' performance. The international comparisons show a larger decrease than the national data, for which there are many possible reasons, such as different age groups and types of tests. However, the overall picture from all sources shows that there is still a lot of progress to be made in the Netherlands.

Hammoud, M., & Brun, C. (2025). ***Beyond Recovery - A Comprehensive Approach for Educational Transformation in Lebanon*** (p. 10). https://doi.org/10.6084/m9.figshare.29438495.v2
In the wake of prolonged conflict and systemic crises, Lebanon's education sector stands at a pivotal juncture. Since 2011, a confluence of factors has further devastated the educational infrastructure and eroded access to learning. These are the Syria crisis, economic collapse, political instability, the COVID-19 pandemic and, most recently, the intensification of Israeli aggression marked by airstrikes targeting densely populated civilian areas. The impact has been profound in what is already a deeply divided educational system: around 30% of students are enrolled in public schools that are notoriously deprived, while 70% of students attend private, fee and non-fee paying schools. Against this backdrop, CLS initiated multi-phase research to systematically document and analyse the evolving effects of overlapping crises on students, families and educators across Lebanon. The study was motivated by a critical gap in both policy and academic evidence of how repeated shocks have influenced education. In particular, how they have affected educational access, learning outcomes and psychosocial wellbeing among diverse population groups, including refugees and other vulnerable communities. This policy brief draws on data from this multi-phase research. It utilises quantitative survey data collected from students (n=406), parents (n=2,075 and n=622 from two separate surveys) and teachers (n=529) between May 2024 and November 2025; as well as five focus group interviews each, with teachers and parents, and 32 individual interviews with parents during October and November 2024. This policy brief makes the case for moving beyond recovery alone and the immediate response to the crises, to a comprehensive, adaptive and inclusive approach to rebuilding education as a public good and stabilising force in the lives of children, families and communities.The full report can be found here (Hammoud and Brun, 2025).

Han, S., & Xie, J. (2025). **`Walking between the lines': research evaluation in China beyond COVID-19**. *Asia Pacific Education Review*, *26*(3), 593-608. https://doi.org/10.1007/s12564-023-09897-3
Based on the glonacal agency heuristic, this study reviews major policy changes regarding research evaluation in China beyond COVID-19, and how research universities strategically adjust their institutional strategies in response to complex and even conflicting global and national forces. In the post-COVID-19 era, two major changes occurred in China's national research evaluation policies, namely, a reversal of the publication-supremacy and a shift toward a focus on social impact, and a reversal of the SCI-supremacy and a shift toward a focus on domestic journals. However, without substantial and concrete matching policies to support these changes, universities might find themselves in a difficult position to change due to the increasing performative pressure to compete in university ranking schemes, the normative expectation of building world-class universities with Chinese characteristics, and the reproductive force of global neoliberalism. By addressing local responses and realities, this study reveals the dilemma

faced by Chinese universities and how they strategically seek balance between quality and quantity, between internationalization and indigenization, and between academic publication and social impact.

Hania, A., Waqas, M., & Chunyan, X. (2025). **Enhancing Teaching Competency in Higher Education: The Role of AI Efficacy, Social Media Use and Classroom Dynamics**. *European Journal of Education*, *60*(3), e70197. https://doi.org/10.1111/ejed.70197
The pursuit of enhanced teaching competency in higher education necessitates understanding multifaceted factors that influence effective teaching practices. This study investigated how AI efficacy, social media use and classroom dynamics enhance teaching competency among higher education faculty. Grounded in Bandura's Social Cognitive Theory, we analysed data from 304 university instructors using structural equation modelling. Results reveal that AI efficacy positively influences social media use, which significantly enhances teaching competency. While AI efficacy demonstrates no significant direct impact on teaching competency, its substantial indirect effect through social media use indicates complete mediation. Classroom dynamics, encompassing student engagement patterns, participatory learning environments and interactive teaching methods, emerge as a foundational element that strengthens both social media adoption and overall teaching effectiveness. The collaborative interaction between classroom dynamics and AI efficacy creates optimal conditions for technology-enhanced pedagogical practices. These findings highlight the interconnected roles of AI efficacy, social media engagement and classroom dynamics in fostering teaching excellence. The study offers valuable insights for educational institutions developing comprehensive faculty development programmes that integrate technological competency with pedagogical innovation in higher education settings.

Hanushek, E. A., & Strauss, B. (2025). **United States: The Size and Variation of the Pandemic Learning Losses**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 189-203). https://doi.org/10.1007/978-3-031-69284-0_13
Recent international and national assessments point to the substantial learning losses that resulted from school disruptions during the pandemic. The United States, which entered the pandemic with achievement near the OECD average, had rather average pandemic learning losses and came out of the pandemic at roughly the same international ranking as before the pandemic. The learning losses from the pandemic foretell substantial economic costs related to the lower skills of those in the COVID-19 cohort. At the same time, there was substantial heterogeneity in achievement losses across states and across individuals, leading to disproportionate economic impacts on some individuals and states. Unlike the other economic costs of the pandemic, those from learning losses are future costs that are yet to accrue and that can be ameliorated by public action—but the time for feasibly addressing them is quickly running out.

Harris, D. N., & Mills, J. (2025). **Should College Be « Free »? Evidence on Free College, Early Commitment, and Merit Aid from an Eight-Year Randomized Trial**. *American Economic Journal: Economic Policy*, *17*(3), 373-406. https://doi.org/10.1257/pol.20230100
Should College Be « Free »? Evidence on Free College, Early Commitment, and Merit Aid from an Eight-Year Randomized Trial by Douglas N. Harris and Jonathan Mills. Published in volume 17, issue 3, pages 373-406 of American Economic Journal: Economic Policy, August 2025, Abstract: We provide evidence on...

Hecquet, E., Bouchetal, T., & Pinsault, N. (2023). **Rencontre de deux mondesłdots Processus d'universitarisation des formations paramédicales : état des lieux des IFSI**. *5ème colloque du RESUP : Fin d'un monde, nouveau monde. Penser les changements des systèmes d'enseignement supérieur et de recherche*. Présenté à Grenoble, France. Consulté à l'adresse https://hal.science/hal-05205527
L'enseignement supérieur a vécu de nombreuses transformations ces dernières années, avec, pour exemple, des changements dans le financement des universités (Calviac, 2019), l'élargissement de ses responsabilités ou encore le passage d'APB à Parcoursup (Frouillou, Pin & Van Zanten, 2019). Parmi les évolutions notables, l'universitarisation des formations paramédicales (notamment des infirmiers) initiée dans les années 2000 est en cours, entrainant des répercussions à la fois sur les instituts de formation et sur les systèmes d'enseignement supérieur. Pour autant, aucune étude ne s'est jusqu'ici intéressée à faire un état des lieux de ce processus pour les IFSI (Institut de Formation en Soins Infirmiers) en France.

Hecquet, E., Pinsault, N., & Bouchetal, T. (2025). **L'universitarisation des formations infirmières : une analyse de la professionnalisation des formateurs à travers les niveaux micro, méso et macro**. *Pédagogie Médicale*, *26*(Suppl 1), S40. https://doi.org/10.1051/pmed/2025006
Context and Problem Statement: The university integration of paramedical education, and in particular the nursing track, represents a major transformation in the landscape of higher education. This research aims to analyze this process through the lens of the professionalization framework developed by Wittorski (2007). Methods:A multi-site ethnographic study, complemented by biographical interviews, was conducted to examine the logics of professionalization and professional development. Each site was the subject of a ten-day immersion, including interviews designed to understand participants' experiences and training dynamics. Wittorski's conceptual framework, centered on professionalization, proves relevant for exploring the complexity of this phenomenon in the context of university integration. Objectives: This study explores professionalization through a multi-level approach (micro, meso, macro), allowing for the examination of its individual, organizational, and societal dimensions. Results: At the micro level, the study focuses on the individual trajectories of trainers and the elements contributing to their professionalization within their organizations. The meso-level perspective highlights that university integration is not merely an institutional requirement but a dynamic process in which local actors play a key role. While national policies set overarching frameworks, it is at this level that the realities on the ground are shaped. Finally, the macro perspective addresses the societal, political, and institutional issues linked to this transformation. The analysis examines governance, the role of stakeholders in university integration, and the training curriculum framework as a central lever of change. Conclusion: The conclusion puts forward a praxeological perspective to guide the university integration of nursing education.

Herrera-Pavo, M. Á., Jaramillo-Baquerizo, C., & Valencia, V. H. (2025). **Ecuador: Inserting the Country into the PISA Experience**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 37-50). https://doi.org/10.1007/978-3-031-69284-0_3
Ecuador debuted in the PISA-D evaluation in 2018, emerging as the top performer among seven nations, yet still trailing behind OECD averages. This analysis explores

Ecuador's unique challenges within its diverse and politically complex context. Highlighting the impacts of COVID-19, which exacerbated existing educational issues, the study discusses curriculum reforms and the essential role of universities in professionalizing teachers and improving student outcomes. As Ecuador prepares for its next PISA in 2025, this chapter critically examines the nation's educational strategies and the need for continuous improvement in response to global standards and internal demands.

Hoffert, C. (2025, août 25). **Décrocher un diplôme sans reprendre des études : la validation des acquis de l'expérience, un dispositif méconnu**. https://doi.org/10.64628/AAK.ut37k7xy5
La validation des acquis de l'expérience (VAE) permet de valoriser par un diplôme les compétences acquises sur le terrain professionnel. Une disposition qui reste méconnue.

Hofflinger, Á., Rodríguez-Ramírez, R., & Vegas, E. (2025). **Chile: From Closure to Recovery: Tracing the Educational Impact of COVID-19**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 17-36). https://doi.org/10.1007/978-3-031-69284-0_2
This chapter analyzes the effects of school closures in Chile, the nation with the longest period of school closures among OECD countries. Using data from PISA (national level) and SIMCE (student level) in 2022, we examine the association between school closures and students' GPA, attendance rates, and math and reading scores. Our findings show that, on average, students' attendance rates and math and reading scores experienced a decline, while their annual GPA increased after 2020. The results also show that school closures affect students differently depending on their demographic and socioeconomic backgrounds.

Hou, A. Y. C., Chen, Y., Lin, A. F. Y., Su, E. H. C., Zhou, K. Z.-W., & Tao, C. H.-Y. (2025). **Did Global Rankings and National Accreditation Drive Taiwanese Universities to Advance Sustainable Development Goals (SDGs)?—Competitive Advantage, a Moral Symbol or Leading to a Paradigm Shift**. *Higher Education Quarterly*, *79*(3), e70031. https://doi.org/10.1111/hequ.70031
Universities have recognised the pivotal role they play in advancing Sustainable Development Goals (SDGs) to build a sustainable society. Two quality assessment instruments in higher education, global rankings and quality assurance, have developed a new set of metrics to measure university commitment to SDGs. This paper aims to analyse the SDGs advancement of Taiwan's 46 universities listed in THE Impact Ranking 2022 in response to the emerging sustainability metrics developed by global rankings and national accreditation, and to explore the purposes, institutional strategies and challenges they encountered. Major findings are as follows. Firstly, competitive advantage is the key reason driving universities for SDGs implementation. Secondly, the common strategy is to align university social responsibility project with general education curriculum. Thirdly, SDGs data reliability, internal quality assurance (IQA) mechanism establishment, intersectoral coordination and faculty and student engagement are the key challenges for SDGs implementation in Taiwan's universities.

Huillery, E. (2025). **France: How COVID-19 Pandemic Affected Learning and Equity of the Education System**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education*

Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022 (p. 79-92). https://doi.org/10.1007/978-3-031-69284-0_6
This chapter examines French educational outcomes before and after the onset of the COVID-19 pandemic. Pre-COVID trends reveal a slow continuous decline in academic performance over time, and steadily strong social inequality. Post-COVID evolution is mixed: PISA 2022 shows a sharp decline in performance for 15-year-old students, stronger than in the average OECD country; but PIRLS 2021 shows a remarkable stability in the reading skills of 4th Grade students, which looks like an exception in the context of a global decline in performance; finally, social inequality did not deteriorate in France, which also contrasts with the typical OECD country. These mixed results may be related to the fact that French school closed much less than in most countries during the pandemic, and to the class-size reduction reform implemented in 2017 in Grade 1 and 2 in disadvantaged schools. These policies may have counteracted the pandemic losses for young students, although not for adolescents.

Humble, N. (2025). **Higher Education AI Policies—A Document Analysis of University Guidelines**. *European Journal of Education*, *60*(3), e70214. https://doi.org/10.1111/ejed.70214
Artificial Intelligence (AI) has been highlighted as a potentially disruptive force across several industries and in higher education. Research has suggested that education and upskilling of citizens should adopt a broad approach, not only focusing on experts, for better nationwide AI readiness. This study investigates the content of AI policies in higher education by analysing official documents from Swedish universities. It identifies key themes and patterns, comparing them with related research and international guidelines. Expanding on the results of the study, it develops a dynamic alignment model for higher education AI policy (DAMHEAP) which, grounded in institutional theory, highlights strategic, pedagogical, ethical and legal, operational and adaptive alignments. This model, together with 10 practical recommendations, provides a roadmap for higher education institutions to develop and maintain AI policies that are pedagogically relevant, ethically responsible and adaptive to technological change.

Ibourk, A., & Elmakhloufi, K. (2025). **La mosquée au service des objectifs économiques des programmes d'alphabétisation des adultes au Maroc**. *International Review of Education*, *71*(4), 591-603. https://doi.org/10.1007/s11159-025-10135-8
The mosque at the service of the economic objectives of adult literacy programmes in Morocco – In Morocco, in addition to their religious missions, mosques play a role in adult education and training, thereby promoting the integration of adult learners. This article develops an economic index to assess this integration. It uses ad hoc data collected by monitoring a cohort of 351 learners over five and a half years. Promising results show significant progress in this area, with 18.87% of women achieving their economic goals. The study identifies three dimensions to this integration. The first is linked to the internal and external environmental context of the learning operation. The second is linked to the learners' socio-demographic and economic characteristics. The third is linked to the socio-demographic characteristics of the supervisors. This study is limited by the lack of assessment of the reading and writing skills of neo-literates. A target of sixty correct words per minute is recommended as an objective measure of these skills.

Jakachira, G., & Chimbunde, P. (2025). **Children on margins of quality education in Zimbabwe's satellite primary schools: a review of literature**. *Cogent Education*, *12*(1), 2521164. https://doi.org/10.1080/2331186X.2025.2521164
Zimbabwe's Fast Track Land Reform Programme in 2000 led to the establishment of satellite schools in former White-owned Commercial Farming Areas for the children of the land reform beneficiaries. Research studies (Jakachira, 2020; Muntanga & Kapoka, 2021; Mwiinde & Muzingili, 2020) corroborate that these schools provide the lowest quality of education in the country. Framed by the Open Systems Theory, this paper examines the key barriers to the provision of quality education in the schools. The barriers include long distances to educational facilities, limited social amenities, and inadequate government funding, all of which restrict access to essential resources. Furthermore, poor infrastructure, shortages of furniture and curriculum materials, a lack of teacher training in multi-grade pedagogy, high teacher turnover rates, and the presence of Teaching Heads, collectively undermine educational quality. Many small rural schools in developing countries face similar barriers, indicating their exclusion from national quality education initiatives. The paper recommends targeted government funding, the integration of multi-grade pedagogy into teacher development programmes, improved rural transportation, and the appointment of Non-Teaching Heads to lead these schools. These strategies aim to address the ongoing challenges faced by satellite schools and contribute to the broader discourse on quality education in small rural schools.

Jeroense, T., Spierings, N., & Tolsma, J. (2025). **How the educational level of confidants impacts our political attitudes?** *European Sociological Review*, *41*(3), 426-442. https://doi.org/10.1093/esr/jcae041
The role of an individual's educational level in shaping their political attitudes is very well documented. Also, social networks formed by both our strong and weak ties are generally segregated by educational level. Dove-tailing these two observations raised the question of whether the educational level of one's confidants also independently impacts an individual's political attitudes; however, this question has gotten hardly any attention. Therefore, we theorize and study the role of education in the core discussion network, including the question under what conditions the influence of our confidant's education on our political attitudes is especially strong. Empirically, we use a random intercept cross-lagged panel model to disentangle selection effects from the influence effects of interest. We find a small but robust influence effect of confidants' educational attainment on political attitudes of ego. However, confidants' influence does not depend on the degree of dyadic political discussion, confidant newness, and dyadic similarity.

Jones, D. B., & Schmick, E. (2025). **Reconstruction-Era Education and Long-Run Black-White Inequality**. *American Economic Journal: Economic Policy*, *17*(3), 165-196. https://doi.org/10.1257/pol.20230125
The Reconstruction era of American history (c. 1866–1877) saw widespread efforts to educate recently freed people—efforts that were partially curtailed after Reconstruction. This paper examines the impact of childhood exposure to educational opportunity during Reconstruction on later-life outcomes for recently freed people. Using data on the number of teachers in Black schools and a linked census sample, we find that Black children exposed to greater educational opportunity during Reconstruction had improved occupational standing as adults. Their sons also experienced gains, suggesting

that Reconstruction-era educational efforts, had they persisted, would have impacted Black-White gaps into the twentieth century. (JEL I21, I26, J13, J15, N31)

Kasper, J., Koyama, J., & Turan, A. (2025). **Working the ruins: Coloniality and what remains in refugee education**. *International Journal of Qualitative Studies in Education*, *38*(8), 1186-1206. https://doi.org/10.1080/09518398.2025.2502056
The coloniality matrix of power is foundational to many national education systems. Thinking with Lather (Signs: Journal of Women in Culture and Society, 27(1), 199–227), we argue that "traces, fragments, and ruins survive, embedded in common sense, perspective, social practices, and political power" (p. 200) long after nation-states assert independence and build school systems. "[W]orking within/against the dominant, contesting borders, tracing complexity… [we aim] to gain new insight into what not knowing [and not knowing too much]" (p. 199) allows us to say about the vestiges of colonialism in refugee education in the United States. We explore what remains in refugee education today, as we pick through the ruins of nearly ten years of intra-related ethnographic and case study research that we have conducted to reassess our authority/legitimacy as researchers. We focus on diffracting who we constructed and accepted as actors and what we counted as data in our work through lenses of coloniality and feminist pedagogy.

Lajnef, K. (2025). **How does accounting education shape the digitalization of the accounting profession? A cognitive mapping investigation**. *Quality & Quantity*, *59*(4), 3441-3460. https://doi.org/10.1007/s11135-025-02131-9
This study explores how accounting education influences students' readiness for the digitalization of the accounting profession, with a particular focus on Tunisian accounting students. A qualitative approach is employed, utilizing cognitive mapping techniques with a sample of 74 students. Through cognitive mapping, key cognitive structures related to factors such as faculty expertise in digital accounting, resource availability, and continuous professional development initiatives are identified. Faculty expertise, in this context, refers to instructors' proficiency with digital tools and their ability to incorporate these tools into their teaching. Resource availability pertains to the access students have to digital learning tools and development opportunities that enable engagement with modern accounting technologies. The findings indicate that faculty expertise and access to digital resources significantly contribute to students' readiness for digital accounting tasks, fostering skills that go beyond traditional accounting practices. A practical recommendation is to implement targeted faculty development programs and increase funding for digital tools, ensuring alignment between accounting curricula and industry standards. This study underscores the importance of embedding digital literacy into accounting education, offering insights for educational institutions and policymakers on preparing students for the evolving technological demands of the accounting profession.

Lawson, L., & Oudjim, L. (2025). ***A deep Dive into the Education Research Landscape in Kenya and Senegal*** (p. 1-24). Consulté à l'adresse Education Sub Saharan Africa (ESSA) website: https://essa-africa.org/node/1999
New Report Reveals Gaps and Opportunities in Kenya and Senegal's Education Research Landscape

Lee, H., & Lee, J.-W. (2025). ***Higher Education Quality, Income and Innovation: Cross-Country Evidence*** [Working paper]. Consulté à l'adresse Centre for Applied Macroeconomic Analysis, Crawford School of Public Policy, The Australian National University website: https://EconPapers.repec.org/RePEc:een:camaaa:2025-41
This study develops a novel cross-country measure of higher education quality by leveraging the robust relationship between institution-level indicators--such as faculty-to-student ratios and global university rankings--and the earnings of graduates employed overseas. Using U.S. microdata, it shows that global rankings are strongly correlated with key quality dimensions, including research performance, teaching environment, enrollment size, international outlook, and student selectivity. Building on this relationship, a country-level index of college education quality is constructed for 98 countries, capturing variations in institutional characteristics weighted by their estimated effects on graduate earnings. To examine macroeconomic impacts, the study estimates cross-country regressions of GDP per worker, resident patenting, and R&D expenditures. An instrumental variable strategy--exploiting geographic proximity to global academic hubs--is used to address potential endogeneity. The results show that tertiary education quality has a large and statistically significant effect on all three outcomes, underscoring its role in long-run economic development and innovation capacity.

Lefébure, A. (2025, août 6). **Universités américaines : l'internationalisation devient-elle une ligne de défense ?** https://doi.org/10.64628/AAK.vk433g7kt
Ouvrir des campus à l'étranger peut-il devenir une stratégie pour les universités américaines désireuses d'échapper aux pressions politiques du locataire de la Maison Blanche ?

Li, J., Kobakhidze, M. N., & Tian, R. (2025). **Guanxi Practice Through Sensemaking: An Exploration of Private Tutoring Entrepreneurship in Chongqing, China and Its Policy Implications**. *European Journal of Education*, *60*(3), e70184. https://doi.org/10.1111/ejed.70184
Based on a 16-month qualitative study, this article documents the diverse guanxi practices used by private tutoring entrepreneurs in Chongqing, China. It reveals how these entrepreneurs leverage their social connections to support their businesses. Informed by Karl Weick's theory of organising, we argue that guanxi practices are sensemaking processes that benefit entrepreneurs but may have adverse effects on the education market, policy regulation and education equality. This study contributes to and integrates sensemaking theory, guanxi theory and the literature on shadow education by conceptualising the practice of guanxi in the context of the private tutoring industry as a form of sensemaking. It also informs policymakers seeking to improve the regulation of the shadow education industry.

Lightfoot, S., Mander, S., & Doehler, S. (2025). **Can You Hear Me? Empowering From Afar: The Impact of Participating in Staff Recruitment on the Student Experience of HE Distance Learners**. *Higher Education Quarterly*, *79*(3), e70024. https://doi.org/10.1111/hequ.70024
This paper explores the impact of student participation in staff recruitment processes at a UK distance learning Higher Education Institution, examining its contribution to quality in teaching and learning. Drawing on Self-Determination Theory, the study investigates how students' involvement in high-level decision-making affects their sense of agency, wellbeing, and belonging. Using creative, arts-based methods, three distance students reflected on their experiences through visual representations and follow-up narrative

interviews. Findings indicate that authentic student voice activities can enhance students' perceptions of educational quality, promote a sense of inclusion, and support emotional and academic wellbeing. Participants reported increased confidence, respect for the institution, and clarity of purpose in their studies. This research highlights the value of embedding student voice across institutional practices and proposes a more holistic, participatory approach to quality that reflects the realities of distance education and the diverse identities of students.

Lizardo, L. D., & Baguio, J. B. (2025). **Futuristic Leadership Practices and Participatory Good Governance of Public Elementary School Teachers**. *Journal of Economics, Management and Trade*, *31*(7), 208-217. https://doi.org/10.9734/jemt/2025/v31i71322
This study was conducted to determine the relationship between futuristic leadership practices and participatory good governance among teachers in public elementary schools in Dujali District, Division of Davao del Norte. A non-experimental quantitative research design utilizing the correlational method was employed. The respondents consisted of 131 public elementary school teachers selected through universal sampling. Data were analyzed using mean, Pearson r, and regression analysis. The findings revealed that the level of futuristic leadership practices among teachers was high and often manifested. Similarly, the level of participatory good governance was also high and frequently demonstrated. A significant relationship was found between futuristic leadership practices and participatory good governance. Furthermore, the domains of futuristic leadership practices significantly influenced participatory good governance among teachers. Based on the findings, it is recommended that school heads enhance leadership practices by encouraging professional ethics among teachers and addressing students' needs through the creation of pleasant surroundings, a friendly atmosphere, and an inspiring learning environment. This information should be effectively communicated to all school administrators.

Loncle-Moriceau, P., & Chevalier, T. (2025, juillet 23). **Frais de scolarité, sélection, individualisation des parcours : en Europe, une variété d'expériences étudiantes**. https://doi.org/10.64628/AAK.ddanjymd5
Si un espace européen de l'enseignement supérieur s'est construit, la diversité des politiques de jeunesse reste forte entre les pays.

Luna-Bazaldua, D., Gove, A., Acevedo-Rebolledo, N., Cloutier, M.-H., & Liang, X. (2025). ***The Roles of Standards in Education and Training*** (p. 1-32). Consulté à l'adresse World Bank website: https://thedocs.worldbank.org/en/doc/c0134fc9f65e601980a6ba78ec3f8bd7-0050062025/the-roles-of-standards-in-education-and-training

Lundin, M. (2025). **Stories from rural schools: Signs of resilience**. *International Journal of Educational Research*, *133*, 102725. https://doi.org/10.1016/j.ijer.2025.102725
Research has shown how rural schools contribute to rural life and how rural communities provide support to their local schools. This knowledge is crucial to sustain good-quality rural education and facilitate informed decisions to develop rural schools on their own terms. A common starting point in the current research is these schools' risk of closure as well as other shortcomings, with economy being one of the most important. Broadening the outlook requires hearing various voices and considering other starting points. This project sets out to examine teachers' and students' understanding at their rural schools

in Sweden by studying how their narratives shape rurality. Two rural schools were studied using an embedded single-case design to search for accounts of needs that were analyzed to identify corresponding educational approaches. The narratives suggest that rural schools describe an agile way of handling issues based on internal and external collaboration and that these measures seem to provide resilience for them.

Malacrino, D., Nocito, S., & Saggio, R. (2025). ***Do Reforms Aimed at Reducing Time to Graduation Work? Evidence from the Italian Higher Education System*** (Working paper N° 11979). Consulté à l'adresse CESifo website: https://EconPapers.repec.org/RePEc:ces:ceswps:_11979
This paper examines the impact of a reform aimed at expediting graduation times in Italian universities by reducing the number of exams students must pass to obtain the fixed number of credits required to graduate. Using event-study estimates that leverage the reform's staggered implementation, we find that this policy change led to an increase in on-time graduation rates but also resulted in a decreased probability of employment one-year post-graduation. However, this negative effect reverses into a positive one in the medium run. We show that these patterns are explained by students using the time gained from earlier graduation to pursue additional educational qualifications in the year following graduation.

Mantil, A., Papay, J., Mbekeani, P. P., & Murnane, R. (2025). ***Introducing a High-School Exit Exam in Science: Consequences in Massachusetts*** (Working paper N° 34023). Consulté à l'adresse National Bureau of Economic Research, Inc website: https://EconPapers.repec.org/RePEc:nbr:nberwo:34023
Preparing students for science, technology, and engineering careers is an urgent state policy challenge. We examine the design and roll-out of a science testing requirement for high-school graduation in Massachusetts. While science test performance has improved over time for all demographic subgroups, we observe rising inequality in failure rates and retest success. English learners, almost 8% of all test-takers, account for 53% of students who never pass. We find large differences by family income, even conditional on previous test scores, that raise equity implications. Using a regression-discontinuity design, we show that barely passing the exam increases high-school graduation and college outcomes of students near the score threshold, particularly for females and students from higher-income families.

Marangio, K., Cooper, R., Gleeson, J., Jenkins, L., & Round, P. (2025). **Creating effective co-design processes for supporting pre-service teachers on school placement as part of a university-school partnership**. *International Journal of Educational Research*, *133*, 102734. https://doi.org/10.1016/j.ijer.2025.102734
Quality relationships and partnerships between different stakeholders are a central part of the development of pre-service teachers (PSTs) in initial teacher education (ITE). This paper presents findings from a larger research project examining the effectiveness of the co-design processes with partnership schools to develop comprehensive and contextualised strategies to enhance PSTs' placement experiences in these schools. Framed by the United Nations' Sustainable Development Goal 4.C, to substantially increase the supply of qualified teachers, this study focuses on school leaders to address the research question: What are the emerging elements of an effective co-design process for supporting PSTs during school placements as part of a university-school partnership? Data were collected through interviews, group sessions and discussions with

school leaders involved in the co-design process within a cluster of schools. Participants provided valuable insights into the advantages and challenges of co-designing strategies for PSTs. The findings identified key opportunities for creating a « third space, » where university and school knowledge intersect to foster productive spaces for collaboration and innovation: (1) shared knowledge building; (2) required mindset changes; and (3) context-oriented pre-placement preparation for PSTs. These productive spaces allow for the integration of diverse perspectives, preparing PSTs for rich placement experiences and ongoing growth and development. They were found to play a critical role in preparing PSTs to succeed in dynamic, diverse, and rapidly changing school environments. These findings contribute to broader discussions about how ITE programs can leverage third-space frameworks to better prepare educators for the complexities of contemporary classrooms.

Marôco, J. (2025). **Portugal: COVID-19 Learning Losses Through the Lenses of ILSA and Local Low Stake Assessments**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 135-152). https://doi.org/10.1007/978-3-031-69284-0_10
This chapter examines the impact of the COVID-19 pandemic on student learning in Portugal from 2018 to 2022. It highlights a decline in student performance on international assessments like PISA and TIMSS, attributing this to several factors, including shifts in education policies, pandemic-related school closures, and the devaluation of external high-stakes assessments. The chapter also analyzes the national assessment of learning losses and remedial measures taken in response to the pandemic. Comparisons with other countries' learning losses underscore the complexity of attributing the decline solely to the pandemic. Importantly, the chapter concludes that the dip in Portuguese students' performance is not solely due to the pandemic, as it began before the outbreak and worsened due to post-2015 education reform. The estimated learning losses, approximately one year of schooling, are attributed equally to school lockdowns and the consequences of ongoing education policies. Overall, the study prompts reflections on the effectiveness of these policies and the broader impact of the pandemic on student learning outcomes.

Martins, P. S., & Ferreira, J. R. (2025). **Effects of individual incentive reforms in the public sector: the case of teachers**. *Public Choice*, *204*(3), 457-481. https://doi.org/10.1007/s11127-024-01256-z
Can incentive schemes deliver value in the public sector, despite major principal-agent challenges? We evaluate a reform that introduced individual teacher performance-related pay and tournaments in public schools in Portugal, despite trade union opposition. We find evidence that the focus on individual performance decreased student achievement (as measured by national exams) and increased grade inflation. The results follow from a difference-in-differences analysis of matched student-school panels and two complementary control groups (including private schools). Students with a higher proportion of teachers exposed to tournaments also perform worse. Overall, our results highlight the social costs of disrupting workers' cooperation, a possible unintended consequence of public-sector tournaments.

Marvin, C. (2025). **"PARLAM EN ARANÉS": relational agency in Aranese language-in-education policy realities**. *Language Policy*, *24*(3), 545-569. https://doi.org/10.1007/s10993-025-09736-8

Medium of instruction (MOI) policy often takes form in diverse and creative ways. In the primary schools of the Aran Valley, Spain, Aranese (a variant of the minoritized language Occitan) is the official MOI, in coexistence with the other official languages of the region: Catalan and Castilian Spanish. In such cases of language revitalization, much of the agency for effecting sociolinguistic change is assigned to educators, who are expected to be linguistic models for students and families. What does this agency mean as it pertains to teachers' determination of MOI practices in a plurilingual context with two minoritized languages? This paper posits this agency as a distributed force among the policy assemblage at play, which encompasses official texts and the human and non-human actors of a given policy space. Through an analysis of official policy discourse, classroom observations and interview data, this article shows how educators at an Aranese primary school constructed MOI policies through their sociomaterial interactions, alignments and positionings within the policy assemblage. An understanding of language-in-education policy as agential enactments in situated learning spaces can shed light on the processes that result in discrepancies between official policy outcomes and everyday classroom realities.

Mattei, T. S., Alves, L. R., & Rego, C. (2025). **The importance of permanence measures for the performance of quota students in Brazilian federal higher education**. *International Journal of Educational Research*, *133*, 102741. https://doi.org/10.1016/j.ijer.2025.102741
The existence of diversified higher education systems, spread across countries, does not imply that everyone has access and success. This paper deals with the difference in the performance of students in-person courses who accessed higher education through a quota system and participated in permanence measures. Based on data from the National Student Performance Exam (Enade) in 2017, 2018, and 2019 for 66,525 quota students from all federal higher education institutions (HEIs) in Brazil, we conclude that the interconnection between access and permanence policies in higher education is necessary and effectively contributes to improving the performance of quota students. The literature had already demonstrated the effectiveness of the effect of support for students. Now, in addition, this research leads to the conclusion that, among the students who benefit from the quota mechanism, there are differences in performance between those who benefit from permanence actions and the others, which is new in this research. In addition to reducing dropout rates, these measures also support educational success. The results show that students who have an interconnection between quotas and at least one permanence measure perform better compared to quota students who do not receive these measures. This difference in their academic classification of 2.3 points from the general education grade, which represents an increase of 4.57 %. The results are positive when analysed separately for improving all grades in the case of academic scholarship distribution measures (internship scholarship, scientific initiation scholarship, extension scholarship, and mentoring/tutoring). Using a methodology such as propensity score matching, which is often used in studies of this nature, it can also be concluded that in order to improve the performance of quota students, there is a need for broader public support, a review of financial scholarships and effective coverage of pedagogical and psychological aspects.

Meekaew, N., & Saenkum, D. (2025). **Bridging policy and practice in climate change education: evidence from Northeast Thailand**. *Frontiers in Education*, *10*. https://doi.org/10.3389/feduc.2025.1561574

Climate change presents significant challenges to vulnerable regions, yet educational systems often lack systematic approaches to climate change education (CCE), particularly in resource-constrained settings. While research has examined CCE implementation in developed countries, little is known about effective delivery in climate-vulnerable regions. This study investigates the implementation of CCE in Northeast Thailand, emphasizing the interaction among teacher training, institutional support, and resource accessibility in a developing context where climate impacts directly affect communities. The study employed a sequential explanatory mixed-methods approach, integrating quantitative survey data from 400 teachers with qualitative insights from semi-structured interviews and focus group discussions among 15 teachers and 5 school administrators. Data were analyzed using multiple regression analysis and thematic analysis to identify key predictors of CCE effectiveness and contextual implementation factors. Regression analysis revealed teacher training as the strongest predictor of effective CCE implementation, followed by institutional support and resource availability. The study showed significant differences between urban and rural areas, with 85% of rural schools reporting insufficient resources compared to 40% of urban institutions. Additionally, 60% of teachers reported actively incorporating climate-related topics into their teaching. These findings demonstrate that successful CCE implementation requires the alignment of targeted teacher professional development, supportive institutional frameworks, and equitable resource distribution. Based on these findings, the study recommends establishing regional CCE teacher training centers, implementing resource-sharing networks between urban and rural schools, and developing locally adaptive curricula. This research provides an evidence-based framework for strengthening climate education in developing contexts, offering practical insights for educational policymakers working in climate-vulnerable regions.

Meirieu, P. (2025). **L'éducation populaire est-elle toujours d'actualité ?** *Tréma*, (63). https://doi.org/10.4000/13r4y
Née au XIXe siècle comme « la dimension culturelle du mouvement ouvrier » (Luc Carton), l'Éducation populaire pourrait apparaître aujourd'hui dépassée. En effet, le contexte politique et social, mais aussi technologique et géopolitique, a radicalement changé. Des problèmes nouveaux se posent comme la crise écologique ou l'emprise des réseaux sociaux. Pourtant à y regarder de près, il est bien possible que les promoteurs de l'Éducation populaire aient plutôt été en avance sur leur temps. Ainsi...

Mendoza, M. E., Brewer, T. F., Smith, M. S., Stein, M. A., & Heymann, S. J. (2025). **Lessons from United States school district policies and approaches to special education during the COVID-19 pandemic**. *International Journal of Inclusive Education*, *29*(10), 1599-1618. https://doi.org/10.1080/13603116.2022.2056643
The COVID-19 pandemic resulted in many school districts in countries around the world transitioning rapidly to partial or complete remote learning. These disruptions affected all children's education, but students with disabilities (SWDs) were particularly at-risk because of the challenges of providing accessible support and services through remote teaching programmes. We examine the experience of SWDs in 24 United States school districts of instructional and adaptation models between August 2020 and February 2021. Districts varied in their approaches to remote instruction, compensatory services and prioritising SWDs for returning to the classroom before other students. Districts also varied substantially in the information provided regarding Distance Learning Plans, changes to Individualised Education Programmes and related service delivery. This analysis

underscores the need for minimal standards for meeting the educational needs of SWDs during school closures as well as for disseminating good practices on minimising the effects of disruptions in future public health crises. These results have implications for existing practices and future research in the U.S. and other countries with widely disseminated decision making surrounding educational delivery during crises.

Merle, P. (2025). ***L'enseignement privé***. Paris: La Découverte. https://www.editionsladecouverte.fr/l_enseignement_prive-9782348086960
En France, l'enseignement privé scolarise plus de 2 millions d'élèves. Il est un des plus importants d'Europe. À l'exception des établissements hors contrat qui accueillent moins de 85 000 élèves, les écoles, collèges et lycées privés sont sous contrat avec l'État et font l'objet d'un large financement public. 96% des élèves du privé sous contrat sont scolarisés dans des établissements catholiques. La contribution centrale de ces derniers au service public d'éducation soulève plusieurs questions sensibles : ces établissements sont-ils plus performants que les établissements publics ? Accompagnent-ils mieux leurs élèves ? Sélectionnent-ils leurs élèves ? Sont-ils une source de mixité ou de ségrégation sociale ? Comment sont-ils financés ? Favorisent-ils l'égalité ou l'inégalité des chances ? Depuis les années 2000, quelles sont les transformations majeures de l'enseignement privé, largement ignorées et pourtant essentielles à la compréhension du système éducatif français ?

Merle, P. (2025). **Les idéologies pédagogiques des établissements privés hors contrat**. *La Pensée*, *422*(2), 147-158. https://doi.org/10.3917/lp.422.0147
Cette recherche a pour objet d'étudier les idéologies pédagogiques des établissements privés horscontrat. Àpartirdecinqorientationspédagogiquesdéfiniesdansunerechercheprécédente fondée sur l'analyse quantitative de 150 rapports d'inspection des établissements privés hors contrat, deux idéologies pédagogiques sont élaborées : la primauté de l'enfant et la primauté du religieux. Ces idéologies pédagogiques sont à l'origine de pratiques et enseignements déviants. Elles ne constituent pas seulement des alternatives éducatives. Elles sont sous-tendues par des projets de société concurrents à l'organisation sociale contemporaine.

Meth, D. (2025). **Quality as Illusion? Considering Hidden Trade-Offs and Risks in Undergraduate Education Conceptualised as 'Regulated Play'**. *Higher Education Quarterly*, *79*(3), e70028. https://doi.org/10.1111/hequ.70028
In-depth interviews exploring academics' teaching practices and views on undergraduate education at one English university reveal concerning examples of educational trade-offs in delivering on national and institutional quality expectations. Evidence reveals the negative impacts on teaching and students' learning and achievements. Quality instruments reflect their neoliberal managerialist environment, its internal structures of power, organisation and monitoring and are viewed through Foucault's concept of governmentality. Academics' responses align with a post-Foucauldian construct reflecting their negotiating behaviours in this space. A new conceptual model extends on Docherty's construct of 'contained' play to capture ways in which institutional quality systems and structures might restrict learning. The questions, 'what lies hidden from the gaze of traditional quality measures?' and 'where does the real risk to quality lie?' are asked, revealing quality to be illusory in some instances.

Findings reinforce the critical need to better understand teaching academics' experiences as key mediators in this area.

Mikulec, B., & Kristl, N. (2025). **The impact of the Erasmus+ programme on adult education in Slovenia**. *International Review of Education*, *71*(4), 631-654. https://doi.org/10.1007/s11159-025-10138-5
The adoption of the Lisbon Strategy in 2000 marked the beginning of a European (adult) education policy defined by common goals, implementation tools and financial resources. Adult education (AE) policy is exercised in the form of "soft law" and supported by various governance mechanisms and policy instruments, such as funding schemes. The study reported on in this article examined the impact of the Erasmus+ programme on the AE system, its organisations, and the professional development of educators and learners participating in mobility exchanges in Slovenia. The study drew on research into European governance in AE. It also used mixed methods to explore the impact of Erasmus+ on AE in Slovenia at micro, meso and macro levels. Quantitative data were collected through a survey completed by 51 AE organisations. Qualitative data were gathered through document analysis of AE policies, five focus group discussions with 23 participants from selected AE organisations, three focus group discussions with 12 adult learners, and four individual interviews with decision makers and project coordinators. The findings point to the important role of Erasmus+ in the professional development of organisations, educators and learners engaged in non-vocational AE, and in supporting social goals and counterbalancing the dominant vocational orientation of European AE policy.

Mocquet, B., Moutte, F., Mclellan, S., & Vivier Leloire, E. (2025). **How are university CIOs trained in 2025? The French Touch**. *EUNIS Annual Congress*. Présenté à Belfast (Northern Ireland), Ireland. Consulté à l'adresse https://hal.science/hal-05172775
In the ever-changing landscape of higher education, the role of Chief Information Officers (CIOs) in universities has undergone a profound transformation. As universities rely more on digital technologies to innovate and improve teaching, learning and administrative processes, university CIOs' responsibilities have expanded significantly. This presentation explores the French approach to training university CIOs between 2018 and 2025, highlighting the collaborative framework developed to enhance their managerial skills and strategic capabilities in a decentralized system where institutions manage their digital strategies independently.

Mukhopadhyay, M., Kaibarta, M., Gantait, B., & Mukherjee, M. (2025). ***The World of Learning. Lessons from 52 countries*** (p. 11). Consulté à l'adresse Educational Technology and Management Academy website: https://etma-india.in/dist/images/pdf/wol_online_version_1.pdf

Muller, S. (2025). **Integrating the lived experience of language with discursive approaches to policy: an exploration of Luxembourgish primary school students' accounts of German language education policy**. *Language Policy*, *24*(3), 475-498. https://doi.org/10.1007/s10993-025-09733-x
This paper expands on discursive approaches to language policy by incorporating the notion of the lived experience of language (Busch, 2015). More specifically, I analyse young people's lived experience of language education policy by focusing on students in Luxembourg who are educated in a language that is not their main or home language.

Indeed, in this educational context, a diverse student population navigates German-medium primary education. I explore the case studies of two students whose descriptions of their lived experience of German language education policy are marked by the themes of (negative) affective orientations, (low) language proficiency, educational difficulty, (low) academic performance and internalised views of deficiency. Data for this research was generated through qualitative, semi-structured interviews. The thematic analysis highlights the emotional ramifications and educational difficulties young people may face when there is a disconnect between their own linguistic repertoires and the language regime at school, and when they are not highly proficient in the medium of instruction. This provides insight into a larger phenomenon as educational contexts around the world can constitute sites of struggle for young people who are educated in languages in which they are still developing proficiency. Thus, foregrounding the lived experience of language (education) policy contributes to language policy scholarship by pushing understandings of policy beyond its social and discursive nature to include its individually lived, emotional dimension.

Naim, M. A., & Indrajaya, Ir. A. N. (2025). **Key Factors for More Effective Community Engagement for Climate Change Adaptation: A Case of High vs Low Lying Area of Bantul and Pariaman**. *European Journal of Education*, *60*(3), e12839. https://doi.org/10.1111/ejed.12839
This article explores climate change adaptation (CCA) in Indonesia after 20 years of ratifying the Kyoto Protocol and 8 years of the Paris Agreement. It highlights the importance of improving community engagement and participation in CCA efforts. Drawing from international and Indonesian contexts, the study identifies key factors for effective community engagement, including social capital, education, institutional change, local knowledge, government commitment and prosperity. The research, based on interviews with key Indonesian policy actors, underscores the significance of addressing these factors to promote meaningful local change. While acknowledging the challenges, the article emphasises the urgency of prioritising inclusive community engagement to address the looming threat of climate change effectively. This prioritisation is crucial for both educational and CCA policy development purposes.

Ndabananiye, J.-C., Deconinck, C., Mbarek, N., & d'Aiglepierre, R. (2025). ***Renouveler les promesses d'efficacité des financements internationaux pour transformer l'éducation***. https://doi.org/10.54673/mvkj4309
Signée il y a vingt ans, la Déclaration de Paris a marqué un tournant dans les efforts internationaux pour améliorer le financement de l'éducation. Des défis majeurs persistent cependant. Cette note d'orientation se penche sur deux décennies d'aide et identifie les obstacles systémiques à un financement efficace. Elle met en lumière les approches couronnées de succès, s'appuie sur les leçons apprises, et propose des stratégies pour garantir que le financement international soutienne efficacement l'amélioration durable des systèmes éducatifs.

Nsibande, S., & Botha, L. (2025). **Enabling resilience and OVC inclusion through relational agency: a case of OVC inclusion/exclusion into education in Eswatini**. *International Journal of Inclusive Education*, *29*(10), 1749-1765. https://doi.org/10.1080/13603116.2023.2295912
This article looks into enabling the resilience and inclusion of orphaned and vulnerable children (OVC) into education through the social relational networks which they have

with others in their environments. Situated within a qualitative approach, the research collected data on the experiences of OVC through semi-structured interviews, questionnaires and a message-in-a-bottle technique. It presents some of the findings on the significant hardships as well as supportive relationships experienced by OVC at the hands of their families, communities and schools. These experiences are framed within a discussion of various understandings of agency and resilience. Favouring a relational approach to agency and resilience, the analyses suggest that, while OVC endure grievous challenges which place them at risk of experiencing exclusion, through the relational networks they have with others, they are able to be resilient and experience inclusion in education and generally.

Nurmukhamed, D., Chegenbayeva, A., Nurumov, K., & Hernández-Torrano, D. (2025). **Stress stemming from educational reforms as a key determinant of teacher's turnover intentions: evidence from TALIS 2018**. *Quality & Quantity*, *59*(3), 2361-2380. https://doi.org/10.1007/s11135-025-02083-0
It is widely believed that stress can affect teachers' intention to change the workplace. This study investigates the implementation of educational policies and reforms as one of the key determinants of teachers' intention to leave schools in Kazakhstan. Kazakhstan presents a unique case since the country endorsed several educational policies in recent years which directly impacted teaching and administrative practices within schools. Using the Teaching and Learning International Survey 2018 (TALIS) data with the country-specific questionnaire from a complex sample of 6566 teachers nested within 331 schools, this study constructs a statistical measure of external stress caused by the implementation of educational policies and test its impact on teachers' intention to leave through a Bayesian multilevel logistic regression model. In addition, the analysis controls for sociodemographic, professional, and students related covariates, while considering the intrinsic dimension of stress stemming from workload, student behavior and expectation. Overall, the results suggest that stress caused by educational policies has a statistically significant positive effect on teachers' intentions to transfer between schools, beyond and above teacher and student variables and intrinsic sources of stress. The results are discussed, and implications for researchers and policy makers to develop evidence-based policy interventions aimed at increasing teacher retention in contexts with intensive educational reforms are presented.

Oates, T. (2025). **England: Turbulent Years—PISA 2022 and COVID-19 School Disruption**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 51-63). https://doi.org/10.1007/978-3-031-69284-0_4
Like many nations, England suffered a decline in scores in PISA in 2022, following important improvement. It declined less than the other nations of United Kingdom, which are in different stages of curriculum renewal and development. This chapter examines key events in England's experience of COVID-19. It explores the nature and extent of COVID-19 impact in England and compares outcomes with other key nations. It suggests that there is strong, continuing and complex COVID-19 impact on education and this is likely to continue into the 2030's. It examines how this poses a highly distinctive public policy challenge which so far has been underestimated with inadequate remedy.

O'Doherty, M., McNamara, G., Gardezi, S., & Brown, M. (2025). **Does school inspection lead to school improvement? A case study**. *Educational Management Administration & Leadership*, 17411432251355386. https://doi.org/10.1177/17411432251355386
This study examines the role of school inspections in driving improvement within an initially a low-performing secondary school in Ireland over a 15-year period. Through a longitudinal case study, the research investigates the impact of three inspection cycles on school development. The study draws on a thematic review of literature to contextualise the evolving functions, roles, and frameworks of the Irish Inspectorate from 1996 to the present, a period marked by significant changes in inspection practices. Nineteen semi-structured interviews with stakeholders provide qualitative insights, which are analysed alongside the literature to understand the dynamics at play in the school's improvement journey. Findings suggest that despite Ireland's low-stakes inspection system, strong trust in the expertise of inspectors, the respected position of the inspectorate, and alignment between the inspection findings and the school's internal self-evaluation were instrumental in fostering acceptance of the initial critical report. This acceptance by school leadership, extended gradually to the entire school and underscores inspection as a potent catalyst for sustainable school improvement. The study concludes that, under specific conditions, school inspection can indeed serve as a highly effective mechanism for long-term educational improvement.

OECD. (2025). ***OECD Skills Strategy Thailand: Assessment and Recommendations***. https://doi.org/10.1787/153a1fe6-en

Oldac, Y. I., Lim, M., Mok, K. H., Tran, L., Yang, L., & Nkansah, J. O. (2025). **Southeast Asia's cross-regional research collaborations in the multiplex world: Current trends and future paths**. *International Journal of Educational Research*, *133*, 102726. https://doi.org/10.1016/j.ijer.2025.102726
Southeast Asia is currently experiencing momentum towards the regional harmonisation of its higher education systems, as also indicated by the recent declaration of the common higher education space in August 2024. Although much progress is still needed, the meaningful initiatives of ASEAN to bring together the ten countries and the role of SEAMEO in education-related harmonisation are important for the aforementioned endeavour. The diverse populations of Southeast Asia aspire to create an inclusive and harmonious space that is well-connected with other regions and nations worldwide. Thus, investigating the cross-regional research collaborations of Southeast Asian higher education is crucial to observing current trends and future paths for its connectivity with other regions and nations. This study examines the patterns of Southeast Asia's cross-regional research collaborations with globally and regionally relevant systems using large-scale bibliometric data. The investigation focuses on major trends, research-area-based analyses, collaboration initiatives, and citation recognition. The analyses indicate a numerical increase in almost all aspects of research collaborations by researchers based in the region. Area-based analyses indicate that the region's collaborations with China focus on STEM areas, as compared to social science and humanities with the EU and medical sciences with the US, highlighting the collaborating side's expertise in specific areas. Findings also indicate that Southeast Asia-based researchers are unequally positioned in cross-regional collaborations as measured by leading authorship proportions. Furthermore, consistent with existing discussions, cross-regional collaborations increase citation impact, but there is room to increase the citation recognition of overall collaborative papers published by researchers in the region.

Ortega Perals, P., Cruz Rambaud, S., & Sánchez García, J. (2025). **How macroeconomic factors and educational level impact on the quality of healthcare status: some dynamic panel data evidence from Europe**. *Quality & Quantity*, *59*(3), 2053-2067. https://doi.org/10.1007/s11135-024-02017-2
Healthcare systems have been thoroughly analyzed in recent years all over the world, with an increased interest in health status as an indicator of population well-being. However, the existing relationship between health status and the economic situation is still unknown, and for this reason, many researchers have started looking for factors to ensure a better health system. The aim of this paper is to measure the impact of the quality of care on the health status of European countries by considering macro-financial magnitudes and social determinants. To investigate this connection, the methodology used is a dynamic panel data analysis by employing the Arellano–Bond Generalized Method of Moments estimator. The data used in this study corresponds to twenty countries of the European Union, for the period 2011–2021. The results show that the number of specialists is the variable which mostly affects health status, these results being robust to any specification or economic-social control. With regards to macro-financial magnitudes, healthcare expenditure significantly increases health status, indicating that increasing expenditure has a positive impact on the healthcare system of European countries. Education level also exerts a positive effect on health status which is indeed the most noticeable contribution of the paper. Finally, the results presented in this paper are of particular interest in designing public policies, therefore increasing the efficiency of European healthcare systems.

Özgenel, M., Brown, M., O'hara, J., & Özkan, M. (2025). **What Can We Learn From Cross-Cultural Comparisons of Professional Development? Professional Development Ecosystems in Ireland and Turkey**. *European Journal of Education*, *60*(3), e70158. https://doi.org/10.1111/ejed.70158
This comparative study explores the professional development (PD) landscapes of educators in Ireland and Turkey, exploring their respective needs, expectations, challenges and levels of satisfaction with the PD that is available. Employing a qualitative approach, semi-structured interviews were conducted with a diverse cohort of teachers in both countries. The findings reveal a universal appreciation for PD among educators, yet notable divergences emerge in delivery methods, cultural perceptions and systemic support structures. Irish teachers benefit from a decentralised framework, affording them autonomy in selecting PD activities, whereas their Turkish counterparts operate within a more centralised, government-directed system. Shared obstacles include time constraints, limited resources and the desire for increased collaborative opportunities. These insights highlight the impact of cultural and systemic factors on PD practices and suggest that embracing flexible, teacher-centred approaches could enhance the efficacy of PD on a global scale.

Pereira, I. (2025a). **Éducation populaire et écopédagogie. Défis et perspectives**. *Tréma*, (63). https://doi.org/10.4000/13r50
De manière générale, il nous semble qu'en France, relativement à l'Amérique du Nord ou aux États-Unis, les questions d'articulation entre justice sociale et justice environnementale restent sous-thématisées. Nous souhaitons aborder cette question à partir des travaux de recherche que nous avons menés sur l'éducation populaire conscientisante dans la lignée de Paulo Freire. Pour cela, nous nous appuierons en

particulier sur les travaux et les expériences en écopédagogie qui ont été menés en Am...

Pereira, I. (2025b). **Propositions de balises curriculaires pour l'écopédagogie**. *Tréma*, (63). https://doi.org/10.4000/13r51
L'écopédagogie est un courant des éducations environnementales se situant dans la continuité de Paulo Freire. Né en Amérique latine dans les années 1990, puis ensuite développé aux États-Unis, il se propose d'articuler justice sociale et justice écologique. Cet article, en s'appuyant, en particulier, sur les travaux de Paulo Freire et de l'écopédagogue Greg Misiaszek, se propose de dégager les balises curriculaires de l'écopédagogie. Une balise curriculaire, comme l'a énoncé Jean-Marc Lange, permet d'éviter une déviation et un affaiblissement d'un curriculum lors de sa mise en œuvre.

Pesle, M. (2025a). **Les enjeux actuels de la politique de la jeunesse et de l'éducation populaire**. *Tréma*, (63). https://doi.org/10.4000/13r53
Cette conférence propose de saisir l'éducation populaire comme un champ se définissant en croisement de l'action publique locale et nationale, du militantisme et de l'engagement associatif, des autres espaces éducatifs, du travail et de l'emploi et in fine de la professionnalisation. L'évolution du contexte institutionnel, politique et économique de ces dernières décennies a conduit les associations et les acteur·rices de l'éducation populaire à se re-positionner et évoluer. Comment, aujourd'...

Pesle, M. (2025b). **Transformations contemporaines des associations d'éducation populaire : vers une managéralisation et une gestionnarisation accélérées**. *Tréma*, (63). https://doi.org/10.4000/13r52
Depuis ces 30 dernières années, les associations d'éducation populaire vivent des transformations profondes, tant du point de vue de leurs financements que de leurs fonctionnements. Ces évolutions relèvent d'une professionnalisation du secteur de l'éducation populaire, qui prend la forme d'une managérialisation. On observe une multiplication des outils et procédures de gestion, qui visent à suivre et évaluer les activités, à contrôler l'activité des structures et le travail ou à orienter l'action associative. Les acteur·ices et le travail associatif sont alors soumis à une recherche de performance et d'efficacité. Ces évolutions sont encouragées par l'État et principalement portées par les cadres dirigeant·es des associations.

Pham, K. T., Ha, X. V., Truong, T. D., Dinh, H.-V. T., Duong, H.-Y. T., & Nguyen, T.-V. (2025). **School Stakeholders' Perspectives on the Implementation of School-Based Management in Vietnam's Education Reform**. *European Journal of Education*, *60*(3), e70193. https://doi.org/10.1111/ejed.70193
School-based management (SBM) enhances decentralisation and autonomy to improve school leadership and management, but in countries like Vietnam, research on its implementation remains limited. This study investigates SBM practices in Vietnamese primary schools, where current education reforms focus on administrative decentralisation and grant schools more decision-making authority in areas such as personnel, finance, administration and curriculum. The participants included principals, academic group leaders, and teachers from nine primary schools (45 individuals in total). Analysis of in-depth interviews revealed that SBM implementation in Vietnamese primary schools is partial and inconsistent. Although each participating school had a complete school council, decision-making was not fully decentralised, especially in areas such as

budgeting, principal selection, and teacher recruitment. The principal and the school council did not appear to play a significant role in these decision-making processes. Teachers mainly participated in minor decisions, like recognition programmes and discipline, but hesitated on broader issues due to lack of confidence, fear of repercussions, and cultural deference. Additionally, the involvement of students' parents appeared to be formal and superficial. The study discusses implications for effective SBM in Vietnamese and similar contexts.

Picq, J.-F., & Khennouf, M. (2025). ***Mise en place d'une réforme du troisième cycle des études odontologiques*** (N° 23-24 242A; p. 119). Consulté à l'adresse IGÉSR website: https://www.vie-publique.fr/rapport/299913-mise-en-place-dune-reforme-du-troisieme-cycle-des-etudes-odontologiques
| L'Inspection générale des affaires sociales et l'Inspection générale de l'éducation, du sport et de la recherche ont conduit une mission pour proposer une réforme structurelle du 3e cycle des études odontologiques. Ce cycle, organisé en voie courte (diplôme de chirurgien-dentiste en un an) et voie longue (diplôme d'études supérieures en trois ou quatre ans), doit s'adapter aux besoins de santé bucco-dentaire de la population.Le rapport identifie plusieurs constats : insertion professionnelle inégale, expérience clinique parfois concentrée sur un nombre limité de pratiques, encadrement des étudiants fragilisé par le tarissement du vivier hospitalo-universitaire et offre marquée par de forts déséquilibres territoriaux. La lisibilité pour le grand public reste limitée : certaines pratiques à exercice exclusif apparaissent à tort comme des spécialités, ce qui brouille la compréhension du rôle des chirurgiens-dentistes.Renforcer le maillage territorialFace à ces enjeux, les recommandations visent à consolider l'adossement universitaire de la filière et à rapprocher la professionnalisation des chirurgiens-dentistes de celle des autres professions de santé. La création d'un diplôme d'études supérieures (DES) d'odontologie générale constitue le cœur de la réforme du cycle court. Elle prévoit un allongement des stages, la formation de maîtres de stage et un maillage territorial renforcé. Une année probatoire obligatoire pour tous, y compris pour les diplômés européens, sécurise l'entrée dans l'exercice libéral.Pour le cycle long, la mission recommande l'uniformisation des DES à quatre ans, avec une année de consolidation sous statut de chirurgien-dentiste junior, permettant aux étudiants de développer progressivement les compétences nécessaires à la réponse aux besoins de santé publique. Relever les défis sanitaires et sociauxLa réussite de la réforme passera, entre autres, par le renouvellement stratégique des forces académiques et hospitalières : création d'un corps d'enseignants en odontologie générale, recrutement de personnels hospitaliers polyvalents et instauration d'un statut de post-interne assistant hospitalo-universitaire. Ces mesures visent à renforcer la qualité de l'enseignement et des soins, tout en préparant l'avenir de la profession.En définitive, cette réforme a pour objectif de relever les défis sanitaires et territoriaux, tout en offrant aux étudiants une formation structurée, professionnalisante et adaptée aux besoins futurs de la population.

Pido, K. B., & Baguio, J. B. (2025). **Administrative Decision Making and Crisis Management in Education in Public Elementary Schools**. *Asian Journal of Education and Social Studies*, *51*(6), 1441-1450. https://doi.org/10.9734/ajess/2025/v51i62087
This study described the administrative decision-making and crisis management in public elementary schools. It employed purposive sampling and a non-experimental quantitative research design using the correlational method. The respondents were 165 teachers from the Tibungco District, Division of Davao City. Statistical tools used included

the mean, Pearson Product-Moment Correlation Coefficient (Pearson r), and multiple regression analysis. Findings revealed that the levels of administrative decision-making and crisis management were high and consistently demonstrated. Contributing factors included the administrators' responsiveness, clear communication strategies, and adherence to established policies. Moreover, a significant relationship was found between administrative decision-making and crisis management, with the former significantly influencing the latter. It is recommended that school administrators strengthen professional development programs that focus on strategic decision-making and proactive crisis management to enhance educational leadership in public elementary schools.

Rahman, A., & Freeman, A. (2025). ***Education in Conflict and Crisis in 2035: Twelve trends and five scenarios for how the future might unfold***. https://doi.org/10.53832/edtechhub.1126

Rouquet, F. (2025). **Le renforcement des programmes du premier degré : des tensions entre finalités ambitieuses et curriculum à enseigner**. *Éducation & didactique*, (2), 93-111. https://doi.org/10.4000/14b8c
En 2020, des modifications des programmes du premier degré engagent à un « renforcement des enseignements » : le changement climatique, la biodiversité et le développement durable (MEN, 2020). Deux points nous interrogent particulièrement. D'abord, les notions abordées, surtout lorsqu'elles sont attachées à des problèmes complexes voire flous, ne rendent-elles pas leur enseignement difficile pour les professeurs ? D'autre part, une école où l'objet du savoir est sanctuarisé ne rentre-t-elle pas en tension avec la citoyenneté, c'est-à-dire une éducation non dogmatique centrée sur un engagement citoyen ? L'article proposé cherche à comprendre ce nouveau propositionnalisme scolaire, inscrit dans les éducations à…, en le soumettant à l'examen d'une analyse didactique et épistémologique.

Singal, N., & Godwin, K. (2025). ***A missing link for inclusive education:*** (p. 72). Consulté à l'adresse The Learning Generation Initiative, Education Development Center website: https://afri-can.org/wp-content/uploads/2025/07/A-missing-link-for-inclusive-education-1-compressed.pdf

Song, Q., Liu, N., & Yang, J. (2025). **Removing institutional barriers or reframing inequality: effects of China's college entrance exam reform on inequality in internal migrant students' higher education attainment**. *Higher Education*, *90*(1), 215-242. https://doi.org/10.1007/s10734-024-01318-7
With the backdrop of global migration trends over the past two decades, there has been a significant rise in the number of migrant students enrolled in school systems around the world. Ample research has shown that migrant students often confront systemic barriers and inequities in access to educational opportunities compared to native students at the higher education level. In response to these persistent disparities facing migrant student populations, governmental authorities in different national contexts have sought to enact targeted policies aimed at reducing gaps between migrant and native students and improving their educational outcomes in access to higher education. Despite growing interest in addressing migrant student challenges through targeted policies, few studies have evaluated the causal impacts of these interventions and assessed their effectiveness in reducing educational inequalities. Using data from the 2018 China

Migrants Dynamic Survey (CMDS, N = 4323), this study contributes to the literature by investigating the causal impact of the college entrance examination reform policy on migrant students' access to higher education in China. The findings of this study reveal that the policy significantly increases the probability of migrant students' access to higher education, but this improvement is driven primarily by those from higher family socioeconomic backgrounds and urban household registrations. The policy thus has a limited effect on reducing educational inequality. The findings of this study will inform policies in China and beyond for reducing inequalities and expanding migrant students' access to higher education within institutional constraints.

Soriano-Gafiuk, F. (2025, septembre 1). **Changer l'enseignement des maths : Peut-on s'inspirer de l'école allemande ?** https://doi.org/10.64628/AAK.spkf5pmqy
Pour réconcilier les élèves avec les maths, ne pourrait-on pas s'inspirer d'un modèle allemand qui ancre les problèmes d'arithmétique dans le quotidien ?

Stephens, C., & Morita-Mullaney, T. (2025). **Interpreting as educational policy: disentangling discourses of language access in schools**. *Language Policy*, *24*(3), 431-450. https://doi.org/10.1007/s10993-025-09728-8
The rights of language minoritized parents – up to a quarter of all parents in U.S. schools – are negotiated in interpreted conversations with educators. Therefore, language interpreting is school policy with consequential equity implications. In this critical discursive analysis, we examine interpreting and translation as educational policy. We apply Machin's (Critical Discourse Studies 10(4):347–355, 2013) Critical Discourse Studies framework of recontextualization to see how policy actors in schools combine, obscure, highlight, and delete elements of language access as they implement policy. This critical analysis of policy documents and qualitative interviews with school stakeholders takes place in Urban Mid-Atlantic and Urban Midwest school districts with growing populations of students designated English language learner (ELL). Our analysis addresses how school actors evaluate interpretation, as well as what they omit and substitute in their perspectives of interpreted communications with families; it also shows how meso-level administrators may be key to policy implementation change. We share both theoretical and practical implications towards greater justice in educational policy for communication with language minoritized families.

Sun, Z., Lim, M. A., & Cockayne, H. (2025). **Reputation Management in a Chinese and UK University: What Do Universities' Self-Representations Through Social Media to Governments and International Students Say About Their Resource Dependence?** *Higher Education Quarterly*, *79*(3), e70040. https://doi.org/10.1111/hequ.70040
This study discusses the relationships between resource dependence, and reputation management (RM) through interviews with university managers regarding the use of social media by Chinese and UK Higher Education Institutions (HEIs). This research enriches existing literature by providing a new and comprehensive understanding of the factors influencing university communication and reputational behaviour through the lens of Resource Dependence Theory (RDT) post COVID-19. The recruitment of international students in the chosen UK and Chinese HEIs is intricately tied to securing resources—but that these resources were valued differently at the case study HEIs. Nineteen interviews were conducted across the case universities and content analysis was employed to explore the perspectives of university managers. Our findings show that the admission of international students responded to the need to acquire legitimatory (in China) and

financial resources (in the UK). These results signal an important difference in how international students, as resources, are perceived by these administrators. This insight explains why the UK and Chinese case universities' use of social media, especially after COVID-19, reflected their dependency on non-diversified (China case) and diversified resources (UK case). This insight is significant for policymakers and university staff who manage international student recruitment and also for the critical debate about students as 'resources'.

Tadlaoui-Brahmi, A., Alvarez, L., & Buttier, J.-C. (2025). **L'éducation populaire à la rescousse des institutions pour l'éducation à la citoyenneté numérique ? La nécessité d'un tiers-lieu face aux limites de l'école**. *Tréma*, (63). https://doi.org/10.4000/13r54
Cet article interroge les limites inhérentes au cadre scolaire institutionnel face aux finalités de l'éducation à la citoyenneté numérique (CN). S'appuyant sur trois communautés de pratiques menées auprès d'enseignant·es du primaire, notre analyse met en lumière les contraintes structurelles qui limitent la capacité de l'école, et celle de ses représentant·es, à appréhender pleinement la diversité des pratiques de CN. Dans ce contexte, les principes fondamentaux de l'« éducation populaire politique », tels que conceptualisés par Morvan (2011), émergent comme une voie prometteuse de dépassement. Cette approche, inscrite dans des enjeux d'émancipation et de participation active, constitue un cadre favorable à une réflexion critique sur les modes d'apprentissage de la CN. À cet égard, notre discussion suggère le recours aux tiers-lieux, définis comme espaces d'expérimentation pédagogique et formalisés hors des injonctions institutionnelles. En définitive, cet article vise à nourrir la réflexion sur les limites des circuits éducatifs institutionnalisés, dans le but de mieux répondre aux enjeux d'une CN critique et engagée, sous réserve que cet objectif soit effectivement poursuivi.

Tao, S. (2025). ***Third Annual G7 Global Objectives Report: Examining the Effects of Education in Emergencies and Protracted Crises*** (p. 94). Consulté à l'adresse UNGEI website: https://www.ungei.org/publication/third-annual-g7-global-objectives-report
In 2021, the G7 endorsed two Global Objectives to be achieved by 2026 in low- and lower-middle-income countries: 40 million more girls in school; and 20 million more girls reading by the end of primary. These objectives recognize that marginalized girls are often left furthest behind as a result of poverty, displacement, disability, and the 'double disadvantage' that harmful gender norms impose.This Third Annual G7 Global Objectives Report analyses progress towards these Objectives through the lens of Education in Emergencies and Protracted Crises.

Tejada-Sánchez, I., & Molina-Naar, M. (2025). **English medium instruction practices in the internationalized university: The cases of Colombia and South Korea**. *International Journal of Educational Research*, *133*, 102654. https://doi.org/10.1016/j.ijer.2025.102654
This study examines English Medium Instruction (EMI) in higher education institutions in Colombia and South Korea. Using qualitative content analysis, data from professor interviews, classroom observations, and educational artifacts were analyzed through Kemmis' practice architecture and the ROAD-MAPPING frameworks. Findings reveal three practice configurations: Sayings (EMI within prospective academic communities), Doings (EMI embodying expanded disciplinary perspectives), and Relatings (EMI fostering rapport and adaptability). These categories illustrate EMI patterns across contexts, highlighting unique ecologies from institutional structures, pedagogy, and social relationships. The study underscores the importance of contextual approaches for

effective EMI application and supports flexible language policies balancing English's global role with linguistic diversity. By integrating sayings, doings, and relatings with the ROAD-MAPPING framework, the analysis provides deeper insights into EMI practices in international higher education.

Teng, J., Gao, C., Yuan, T., Jing, X., & Hu, Y. (2025). **Can 'International Understanding' be successfully taught in schools? – Empirical results from a regional university-school partnership project in Chengdu, China**. *International Journal of Educational Research*, *133*, 102736. https://doi.org/10.1016/j.ijer.2025.102736
The changing international political economy, global uncertainties, and emergencies in recent years are prompting renewed discussions about the role of Education for International Understanding (EIU). This study aims to explore the effectiveness of teaching international understanding related knowledge and skills in Chinese public primary and secondary schools. It is based on a joint 'EIU Curriculum Development Project' between Beijing Normal University and Chengdu Hi-Tech Industrial Development Zone, through collaborative EIU curriculum development. Employing a mixed-methods approach that integrates quantitative and qualitative research techniques, a survey that tests four dimensions of 'international understanding' – willingness, skills, knowledge, and action – has been administered among a total of 21 public schools encompassing 10,979 students. Additionally, semi-structured interviews have been conducted with 30 students involved in the study. The findings of the study reveal two key points: firstly, students participants demonstrate a stronger grasp of 'international understanding' among all four dimensions, compared to their peers in non-participating schools, highlighting the significant role of universities as partners and 'mentors' in guiding practical applications in primary and secondary educational settings. Secondly, among the four dimensions, EIU-specific knowledge plays a critical role in EIU, serving as an essential prerequisite for cultivating willingness, and fostering skills relevant to international understanding. As an on-going long-term university-school partnership (USP) project, the results in this paper provide empirical evidence for future collaboration and improvement in EIU curriculum development, especially for a co-production of EIU between universities and schools.

Tenne, Y. (2025). **Quand une crise climatique amplifie une situation extrême : l'exemple du rétablissement des services scolaires à Mayotte**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vw
La possibilité d'une gestion de crise après un épisode climatique hors norme peut permettre d'analyser les enjeux d'une éducation dans des situations extrêmes. L'île de Mayotte, département français d'outre-mer, représente un cas récent de ce type de situations. Permettre la reprise scolaire à une majorité d'élèves, alors que les conditions d'accueil n'étaient pas réunies, que la surpopulation scolaire est un obstacle important à une scolarité banale, que l'absence d'une partie des personnels était un élément du contexte, a nécessité de trouver dans un temps contraint des solutions immédiates et durables. Cette situation de crise interroge durablement la capacité de pilotage d'un système éducatif.

Tire, G. (2025). **Estonia: The Impact of Covid-19 on Education in Estonia—What Have We Learned from PISA 2022 and National External Evaluations?** In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 65-77). https://doi.org/10.1007/978-3-031-69284-0_5

PISA 2022 is the first large scale international assessment that claims to capture the impact of Covid-19 on school systems worldwide. Learning loss is observed in many countries around the globe and Estonia is not an exception. However, Estonia is still among the top performing countries showing high levels of student performance in all domains of assessment. In this chapter we look at pre and post Covid-19 data about the aspects of equity, performance and well-being as seen by the national and international studies for Estonia.

Törley, K. (2025). **Un témoignage sur la dérive autocratique en Hongrie et la résistance des enseignants**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vu
En Hongrie, les changements dans le monde de l'enseignement ont été mis en œuvre à petits pas, brique après brique, presque imperceptiblement, même pour les plus directement concernés – qui étaient comme la grenouille qui se fait gaiement cuire sans s'enfuir, si l'on débute la cuisson dans de l'eau agréablement tiède. Après un bref rappel de la chronologie, l'article montre comment le gouvernement hongrois illibéral a « cuit » l'éducation et ses acteurs, en diminuant les ressources, en centralisant, en supprimant la liberté des enseignants et en les intimidant.

Tulsyan, A. (2025). **Rethinking Quality Education: Perspectives from the Capability Approach**. *ORF Occasional Paper*, (483), 1-35. Consulté à l'adresse https://www.orfonline.org/public/uploads/posts/pdf/20250709183309.pdf
Rethinking Quality Education: Perspectives from the Capability Approach

Tutuncu, L., & Seeber, M. (2025). **The importance of international and national publications for promotion and the impact of recruitment policies**. *Higher Education*, *90*(1), 21-47. https://doi.org/10.1007/s10734-024-01306-x
Few studies explored whether publications in international peer-reviewed journals and publications in national journals, so-called local publications, affect academic promotion and whether their impact varies for different categories of scientists. Moreover, recruitment policies have mostly tried to incentivize international publications, but in recent years, some countries have promoted publications in national outlets, and the impact of such policies has not been explored. The goal of this article is to address these gaps considering all active Turkish full professors in Business and Economics (n = 1470) and the factors affecting the time to promotion. We found that international publications and, to a lesser extent, local publications predict significantly faster promotion, but with very different impact across categories of scientists. Moreover, local articles' impact on time-to-promotion increased after the introduction of new regulations that encouraged publication in national journals, whereas international publications became completely irrelevant.

UNESCO. (2025). ***Practical approaches to increase inclusion of migrants and refugees in TVET in the Arab States: discussion paper*** (p. 59). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394865

UNESCO International Centre for Technical and Vocational Education and Training. (2025a). ***Greening TVET: guidelines for institutions in South Sudan*** (p. 45). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394867

UNESCO International Centre for Technical and Vocational Education and Training. (2025b). ***Institutional guide for gender transformation in TVET in South Sudan*** (p. 63). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394868

UNESCO Office Dakar and Regional Bureau for Education in Africa. (2025). ***Rapport général de l'atelier régional sur les politiques enseignantes dans le Sahel*** (p. 31). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394696

Valenti, C. (2025, août 27). **Invention de l'école maternelle : Comment l'éducation des enfants de 3 ans à 6 ans est devenue une priorité**. https://doi.org/10.64628/AAK.sxgvnq3gn
L'école maternelle telle qu'on la connaît se dessine à la fin du XIXe siècle, et la pédagogue Pauline Kergomard a joué un rôle décisif dans sa création.

van de Kuilen, H. S., Altinyelken, H. K., Voogt, J. M., & Nzabalirwa, W. (2025). **Teacher agency in the context of pedagogical reform in Rwanda**. *International Journal of Educational Research*, *133*, 102695. https://doi.org/10.1016/j.ijer.2025.102695
Learner-centred pedagogy (LCP) has been adopted in many low- and middle-income countries, including Rwanda, to enhance education quality. However, studies on educational reform often overlook teacher agency. This paper addresses that gap by examining primary and secondary teachers' agency in Rwanda's pedagogical reform. Findings show that all teachers believed in LCP and their capacity to implement it. Social and organizational structures in secondary schools were more supportive of agency than in primary schools. The study highlights the critical role of teacher agency in shaping the success or failure of educational reform initiatives.

van der Berg, S., & Böhmer, B. (2025). **South Africa: COVID-19 Learning Losses and Attempts at Recovery in a Poorly Performing and Unequal Education System**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 153-169). https://doi.org/10.1007/978-3-031-69284-0_11
The COVID-19 pandemic significantly affected education in South Africa. School closures, rotational timetabling, remote learning challenges and higher absenteeism compounded educational disparities. PIRLS 2021 results demonstrate significant learning loss in Grade 4 reading achievement, with a decline of 31 PIRLS points since 2016, equivalent to 50–60% of a year's learning. The proportion of extremely low performers doubled to over a quarter. Socio-economically disadvantaged students were disproportionately affected. Pandemic-induced curriculum adaptations and lenient promotion policies accelerated student progression but failed to address learning deficits, raising concerns about the affected cohorts' educational and labour market prospects. Insufficient funding and coordination of targeted recovery strategies hinder learning recovery.

Verne, C. (2025). **La tension entre démocratisation culturelle et empowerment radical dans la pédagogie de projet mise en œuvre par les MJC**. *Tréma*, (63). https://doi.org/10.4000/13r5b
Cet article montre les déclinaisons sémantiques et pratiques d'un usage politique et d'un usage administratif du syntagme « éducation populaire » par une association

départementale de MJC. À partir de données récoltées en observation participante, l'article cerne dans les discours et les pratiques des acteurs les significations accordées aux notions d'émancipation, de démocratisation culturelle et de transformation sociale à travers la mise en œuvre de la pédagogie de projet. La démonstration est aussi l'occasion de revenir sur l'héritage du courant pédagogique associé aux loisirs, dans lequel se sont inscrites les MJC depuis leurs débuts.

Voisin, C., Guez, A., & Piacentini, M. (2025). ***Improving accessibility in PISA: Guidelines for revising and designing PISA items*** (OECD Education Working Papers N° 333; 333e éd.). https://doi.org/10.1787/aa90f707-en

Vorapanya, S. (2025). **Issues around the screening process for students with SENs in inclusive schools in Lop Buri Province, Thailand**. *International Journal of Inclusive Education*, *29*(11), 1987-2001. https://doi.org/10.1080/13603116.2024.2327525
A systematic screening process aims to prevent students from school failure and other salient concerns related to students' complications with health and psychological risks. The situation of the screening process for at-risk primary school students in Lop Buri province, Thailand is in question. This study thus aims to investigate (1) the current situation of assessment for at-risk students in hospitals; (2) the existing screening process situation in primary school environments; (3) how parents of students with SENs support screening processes. This qualitative study acquired data from interviewing seven medical screeners, eleven classroom teachers and nine parents of SEN students. From the data analysis, seven different themes emerged among insightful data from the three groups of participants: screening process from school to hospital; shortage of screening tools' training; inadequate medical personnel; complications of psychiatric disorders; local school practices differ with national educational policies; no for identification card and live unhealthy lives being within a low-SES bracket.

Wang, T., & Tian, G. (2025). **Exploring Chinese Special Education Teachers' Emotion Labour Strategies and Characteristics**. *European Journal of Education*, *60*(3), e70177. https://doi.org/10.1111/ejed.70177
The teaching of students with disabilities and/or special educational needs (SEN) has always been an emotionally demanding profession, requiring intensive and toilsome emotional labour for special education teachers (SETs). Situated within SETs' emotional experiences in special schools in China, this study explored the strategies and characteristics of SETs' emotional labour. The findings revealed seven emotional labour strategies of three categories: habitual pretending and intentional restraining of surface acting, self-persuading and meaning-making of deep acting, natural releasing, deliberate outpouring and emotional isolation of genuine expression. These strategies have been influenced by two-pronged opposite and coexisting paradigms of cognition in Chinese special schooling, a charitable and caring paradigm shaped by Confucian benevolence values and a capability-defective cognitive paradigm shaped by traditional disability views and elitism values. Additionally, Chinese SETs' emotional labour displayed four obvious characteristics: long-time duration in emotional interactions, complexity in emotional performance, high uncontrollability in emotional feedback and contradictoriness in emotional states. The findings broadened a deeper understanding of SETs' emotional labour in Chinese sociocultural contexts.

World Bank. (2025). ***INSPIRE Guide to Refugee Inclusion in National Education Systems*** (p. 195). Consulté à l'adresse World Bank website: https://openknowledge.worldbank.org/entities/publication/80b1d4b3-5df2-469e-8cc1-00f5f70fb656
The guide is structured into three main sections: guidance notes. This section acts as a primer, offering clear, concise, and practical information on policy and process issues related to refugee inclusion. It discusses the why of inclusion, highlighting the benefits for both refugees and host countries, and the shift from parallel education systems to national inclusion. It also delves into the practical aspects of inclusion, including legal frameworks, policies, and interventions, and emphasizes the importance of understanding the refugee population's characteristics and needs. The political economy of inclusion, including financing and the changing roles of national and international actors, is also explored. Section two is the intervention repository. This section curates short notes on on-ramp inclusion interventions. These interventions are categorized into addressing policy/financing, supporting schools, supporting students, and monitoring and evaluation. Each note provides details relevant to design and implementation, such as cost estimates, human and material resource requirements, and evidence of impact. Examples of interventions include strengthening identification documentation systems, increasing school capacity through double-shift systems, training teachers in school safety, engaging refugee teachers, providing teacher professional development, recognizing prior learning, organizing back-to-school campaigns, offering cash grants, distributing school kits, extending school health and nutrition programs, providing remedial/accelerated education, strengthening psychosocial support and socio-emotional learning, and using EdTech solutions. The third section is the evidence note. This section synthesizes empirical evidence on refugees and education to inform policy decisions and interventions. It covers the impact of forced displacement on human capital, factors predicting educational outcomes (age at arrival, sex/gender, socio-economic status, parental education, country of origin, length of stay, return intentions, early school environment, refugee teaching assistants, language of instruction, and child labor), the impact of the school environment on psychosocial adjustment, the link between educational attainment and longer-term integration outcomes, and the effects of refugees on the educational outcomes of host community children.

Xie, L., He, X., & Zhang, H. (2025). **How Can the Diffusion of Digital Education Policies Be Advanced in Regions With Diverse Educational Conditions?—Qualitative Comparative Analysis of Chinese Policy**. *European Journal of Education*, *60*(3), e70188. https://doi.org/10.1111/ejed.70188
Advancing digital education innovation has become a global necessity. Policy innovation serves as both its basic and guiding principle for practical breakthroughs. Examining the synergistic impact of multiple factors on the diffusion of digital education policies aids in delineating diverse developmental trajectories and offers strategic insights for different regions. This study constructed an index system for K-12 digital education, analysed the policies across China's 31 provinces, and applied fsQCA to uncover the synergistic effect of influencing factors. Collaboration among multiple factors drives the diffusion. Four types of configurations positively influenced the diffusion breadth of policies. Two types of configurations positively influenced the diffusion intensity of policies. In regions with limited educational resources, four factors warrant increased attention: school administrators, government administrators, educational competitive pressures,

and the rate of Internet access among households. In advanced regions, the symbiotic relationship between governments and industries can address challenges more effectively.

Xu, W. (2025). **Micro language planning and governmentality in 'globalisation from below'**. *Language Policy*, *24*(3), 525-543. https://doi.org/10.1007/s10993-025-09735-9
Community-based grassroots governance has been framed and endorsed as an exemplary model of social governance in China. This article explores how this governing philosophy is interpreted and appropriated within a migrant community in Yiwu, where language serves as a critical nexus between macro-level policy and micro language planning processes. Drawing on the Foucauldian-inspired notion of 'language governmentality', the study explores how Confucius Classroom and Chinese corner, with their distinctive pedagogy, have contributed to the development of 'technologies of self-governance', enabling migrants to lead in mediating community issues while allowing authorities to retreat into the distance. This article demonstrates the value and dynamics of multilingualism in addressing the social issues and social concerns emerging from 'globalisation from below'. The findings have important implications for language practice and management in ethnolinguistically diverse communities, highlighting the importance of understanding local linguistic realities and the role of multilingualism in fostering social integration and social governance.

Yu, Z., & Shirahada, K. (2025). **A Career Development of International Doctoral Students in Humanities and Social Sciences in Japan: Perspectives of Professional Identity Construction and Cruel Optimism**. *Higher Education Quarterly*, *79*(3), e70048. https://doi.org/10.1111/hequ.70048
With the growing number of PhD graduates worldwide and the decline in tenure-track positions, more PhD students are considering non-academic careers. However, influenced by cruel optimism, many remain emotionally attached to academia, making it difficult for them to explore alternative career paths. This study employs an interpretative phenomenological analysis approach, conducting interviews with 12 Asian PhD graduates in Japan to examine their job-hunting experiences and the psychological factors behind their career choices. Findings reveal that the construction of PhD students' professional identity is shaped by social and cultural influences, academic training, and structural issues in the labour market, leading to psychological struggles and real-world challenges in their search. Based on these insights, this study develops a theoretical framework to illustrate how cruel optimism affects career development and offers recommendations for PhD students, universities, and employers to improve career support systems and address employment challenges faced by PhD students.

Zhang, W. (2025). **Changing tides of shadow education in China: trends and opportunities**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wa
The so-called shadow education system of private supplementary tutoring became a highly significant phenomenon in China during the 2000s and 2010s. Families viewed shadow education as a strategy to preserve their children's chances in highly competitive environments characterised by increasing uncertainty. In 2021, the government cracked down on the industry but addressed only the symptoms rather than the causes. Families still felt the need to compete in these uncertain environments, and many continued to seek tutoring, albeit through underground channels. The government

crackdown also impacted the industry itself, but entrepreneurs responded by finding ways around the regulations, developing new curricula, and harnessing emerging technologies. Families still face considerable uncertainty, and future patterns will reflect a complex web of contradictions with ongoing shifts in power relations.

Pratiques enseignantes

Acher, M., Gotlieb, A., Spieker, H., & Lyan, G. L. B. (2025, juillet 29). ***Teaching Reproducibility and Embracing Variability: From Floating-Point Experiments to Replicating Research***. Présenté à 2025 ACM Conference on Reproducibility and Replicability. https://doi.org/10.1145/3736731.3746162
Reproducibility is often discussed but rarely practiced in undergraduate computer science education. In this paper, we present the design, implementation, and evaluation of a 24-hour hands-on course entirely dedicated to reproducibility and variability in computational experiments. Taught to fourth-and fifth-year students at INSA Rennes in Fall 2024, the course combines scientific thinking, software engineering practices, and variability analysis. Students first explored the non-associativity of floating-point arithmetic as a reproducibility « Hello World » using Docker, GitHub Actions, and templated experimentation to analyze sources of variability across programming languages, compiler flags, and numerical precision. The second half of the course focused on reproducing and replicating actual research papers, including studies on large language models playing chess, home advantage in football during COVID-19, and energy efficiency across programming languages. Students successfully reproduced key results, identified subtle reproducibility issues such as changes in library defaults, and designed replications that extended or challenged original findings. We describe the course structure, pedagogical strategies, and lessons learned, including when students found reproducibility flaws in the instructor's own prior work. Our experience suggests that reproducibility and variability deserve a central place in computer science education and can be taught in a way that is both technically rigorous and scientifically engaging.

Aghaz, A., Salmasi, S. D., & Mirzaee, M. (2025). **Cultural Values and Gender Differences in the Association Between Iranian University Professors' Authenticity and Generation Z Students' Intention to Migrate**. *European Journal of Education*, *60*(3), e70212. https://doi.org/10.1111/ejed.70212
Given the significance of authenticity in higher education institutions and the growing number of Iranian generation Z (Gen Z) students migrating to pursue Ph.D. degrees, this study aims to examine how university professors' authenticity influences Iran's Gen Z students' intention to migrate (ITM). Additionally, employing a horizontal and vertical individualism (VI)/collectivism (HVIC) classification, this study investigates how students' cultural values and their gender moderate the relationship between their university professors' authenticity and their educational migration intention. This research is a sample survey and data was gathered via an online survey. Gen Z MBA students studying at six high-ranked Iranian business schools were considered as the population. Overall, 337 responses were gathered. The results obtained through PLS-SEM indicated that students who perceive their professors to be more authentic are less inclined to decide on leaving the country for educational purposes. Moreover, whereas vertical collectivism (VC) and horizontal collectivism (HC) significantly moderate the impact of authentic leadership (AL) on the ITM, VI and horizontal individualism (HI) do not moderate the effect of AL on ITM. Furthermore, the results demonstrated that the negative relation between

the professors' authenticity and the students' ITM was stronger for female students in comparison with male ones.

Akman, Y. (2025). **Fostering School Attractiveness: The Transformative Influence of Inclusive Leadership and Work Engagement**. *European Journal of Education*, *60*(3), e70210. https://doi.org/10.1111/ejed.70210
This study examines the links between inclusive leadership and school attractiveness through the mediating effect of work engagement. Data was gathered from 487 teachers in 10 provinces across Turkey in 2023. The findings contribute by expanding the study of leadership in non-western countries by revealing the impact of principals' leadership on schools and teachers. The study found that teachers' work engagement and school attractiveness were predicted by the principal's leadership. Furthermore, the study discovered that the relationship between inclusive leadership and school attractiveness was mediated by teachers' work engagement. The findings are explored in the context of their consequences for researchers, practitioners, and policymakers.

Allesant, H., Badache, I., & Impedovo, M. (2025). **Découverte de l'intelligence artificielle par des directeurs et directrices d'école primaire : une étude de cas dans deux circonscriptions marseillaises**. In A. pour le T. A. des Langues (Éd.), *Actes de l'atelier Intelligence Artificielle générative et ÉDUcation : Enjeux, Défis et Perspectives de Recherche 2025 (IA-ÉDU@CORIA-TALN 2025)* (p. 21-28). Consulté à l'adresse https://hal.science/hal-05205516
This paper presents a preliminary study on the engagement of primary school principals in Marseille (France) with artificial intelligence (AI), particularly generative AI, in the context of educational digitalization and the digital transformation of schools. The study analyzes a training workshop designed to introduce the historical evolution of AI, its foundations, and its pedagogical applications. The results, drawn from questionnaires administered before and after the intervention, reveal that despite participants' initially limited knowledge of AI technologies, they demonstrated growing interest in exploring these tools, primarily motivated by time-saving goals, while maintaining marked skepticism. The study underscores the need for contextualized training that combines knowledge and techno-pedagogical skills in AI with critical reflection. It also calls for addressing ethical considerations and governance frameworks to ensure responsible integration of AI in education.

Ammar, A., Trabelsi, K., Salem, A., Jahrami, H., & Schöllhorn, W. I. (2025). **Advancing Contextual Interference: Addressing Methodological Debates, Reflecting on Meta-Analytic Practices and Generalizability, and Guiding Future Directions in Motor Learning**. *Educational Psychology Review*, *37*(3), 73. https://doi.org/10.1007/s10648-025-10043-1
Given that the contextual interference (CI) phenomenon is one of the most extensively studied and debated topics in motor learning—featured prominently in scientific literature, textbooks, and practitioner guides—it is unsurprising that recent meta-analyses on the topic have generated critical discussion and contrasting interpretations. This article responds comprehensively to the commentary by Czyż (2025) on our recent meta-analytic work evaluating CI effects across acquisition, retention, and transfer phases in sports related movements. We systematically address their methodological critiques, clarify inclusion decisions, and challenge inconsistencies in their own analytic approach and interpretation—particularly regarding baseline equivalence, study exclusion, and epistemologically inadmissible generalized claims. In addition to a detailed point-by-

point rebuttal, we provide a comparative evaluation of recent CI-related meta-analyses and offer a broader reflection on the current state of meta-analytic practice in motor learning. We highlight concerns related to statistical ritualism, inconsistent quality control, and the growing redundancy of evidence syntheses. Finally, we present targeted recommendations for future research, including the need for high-quality randomized controlled trials, field-specific quality appraisal tools, and comprehensive umbrella reviews to better integrate fragmented evidence. Collectively, these reflections aim to enhance methodological standards and ensure more context-sensitive and scientifically sound conclusions in CI and broader motor learning research.

Arnal, C. (2025). ***Enseigner l'analyse des indicateurs de gestion du linéaire en lycée professionnel. La transmission des consignes en utilisant une capsule numérique.*** (Phdthesis, Université Toulouse Jean Jaurès). Consulté à l'adresse https://hal.science/tel-05178475

La recherche menée sur l'enseignement des indicateurs de gestion du linéaire en lycée professionnel s'inscrit dans une double perspective : comprendre comment une capsule vidéo pédagogique peut faciliter la transmission des consignes et analyser les pratiques enseignantes dans ce contexte. Fondée sur la théorie de l'action conjointe en didactique et la didactique clinique, l'étude s'appuie sur des méthodes mixtes pour évaluer les effets de la capsule vidéo pédagogique dans une classe de terminale baccalauréat professionnel Métiers du Commerce et de la Vente. Cette étude comparative avec deux groupes d'élèves permet d'évaluer les effets de cette capsule sur les élèves et sur l'enseignant. Les résultats montrent que l'utilisation de la capsule a des effets sur les perceptions, l'engagement dans les activités proposées en classe et les performances des élèves. Chez l'enseignant, l'utilisation de la capsule a des effets sur l'avancée du savoir et les stratégies professorales mises en œuvre. La capsule apparaît comme un outil intéressant pour l'enseignement en économie-gestion et dans d'autres contextes éducatifs, notamment en entreprise. Ce travail ouvre également la voie à des recherches futures sur les pratiques pédagogiques en gestion commerciale.

Asgarova, V. (2025). **"Having problems is a good way to deepen relationships" - Exploring the emotion regulation of China-based foreign teachers with and for domestic students**. *International Journal of Educational Research*, *133*, 102712. https://doi.org/10.1016/j.ijer.2025.102712

Little is known about how teachers regulate their emotions in response to unwanted student behaviors in higher education, such as reticence. This is particularly significant in the context of China, where the number of domestically internationalized programs and foreign experts is increasing, yet research on their experiences remains scarce. Adopting a qualitative multi-case approach, including interviews and classroom observations across Chinese higher education institutions, this study aimed to explore how educators perceive and react to inactive student participation behaviors and examine the emotional adjustment patterns that teachers experience in their interpersonal relationships with students. Teachers, overall, expressed frustration with students' inactive participation, with some describing this behavior as a form of 'perfunctory cooperation.' This study challenges the common belief that Asian students' silence is due to their lack of language proficiency and weakens the argument that Asian students are typically silent in international classrooms abroad because they are in unfamiliar environments. Since internationalization strategies in China are still emerging and less common, the study aims to contribute to enhancing the work environment, particularly within

international education programs, by fostering positive teacher-student interactions and addressing the emotional needs of educators in diverse cultural settings.

Ateş, H., & Gündüzalp, C. (2025). **The convergence of GETAMEL and protection motivation theory: A study on augmented reality-based gamification adoption among science teachers**. *Education and Information Technologies*, *30*(12), 17361-17403. https://doi.org/10.1007/s10639-025-13480-1
This study examines the determinants of science teachers' intentions to adopt augmented reality-based gamification through an integrated framework that merges the General Extended Technology Acceptance Model for E-Learning (GETAMEL) with Protection Motivation Theory. The research investigates how cognitive factors, including perceived usefulness and ease of use, interact with motivational constructs such as self-efficacy, anxiety, and perceived threats to influence adoption intentions. Furthermore, the study explores the moderating effect of professional status (pre-service vs. in-service teachers) to identify variations in adoption patterns. A structural equation modeling approach was employed to validate the proposed hypotheses using a diverse sample of 1,634 science teachers. The findings demonstrate that cognitive evaluations, motivational drivers, and social influences jointly shape teachers' intentions to adopt augmented reality-based gamification. Notably, in-service teachers show a stronger response to motivational factors, while pre-service teachers are more affected by perceived barriers. These results offer theoretical contributions to educational technology literature by integrating cognitive, motivational, and social perspectives. Additionally, the study provides practical recommendations for developing targeted professional development programs and strategies to foster augmented reality-based gamification adoption across diverse teaching contexts.

Badache, I., & Colombo, E. (2025). **Repenser les pratiques d'enseignement et d'apprentissage par la robotique éducative : le cas du robot socio-émotionnel Buddy**. In A. pour le T. A. des Langues (Éd.), *Actes de l'atelier Intelligence Artificielle générative et ÉDUcation : Enjeux, Défis et Perspectives de Recherche 2025 (IA-ÉDU@CORIA-TALN 2025)* (p. 98-110). Consulté à l'adresse https://hal.science/hal-05205521
This paper explores the use of Buddy in educational and learning contexts, focusing on two key uses. First, at the National Higher Institute of Teaching and Education in Aix-Marseille, with future teachers and digital pedagogy students. Second, as an emotional and artistic mediator in art learning. The paper examines how Buddy can enhance teaching practices by stimulating creativity, interaction, and emotional and educational support. Acting as a mediator between the learner and their environment, particularly in storytelling, art, and informational assistance, Buddy highlights the potential of robotics to develop inclusive pedagogical practices where art and technology converge to promote learning and emotional resilience. Through these experiments, Buddy serves as a learning catalyst, opening avenues for interdisciplinary research involving computer engineering, psychology, and education. The current technical limitations of Buddy offer opportunities to design educational scenarios that demystify artificial intelligence, shedding light on its biases and limitations.

Balakrishnan, U., Li, J., Safarha, E., & Zaas, D. (2025). **Revisiting the Schooling Inputs Debate: Experimental Evidence From an Early Grade Literacy Intervention in Lao PDR**. *Review of Development Economics*, *29*(3), 1505-1521. https://doi.org/10.1111/rode.13169

Despite the importance of interventions focused on schooling inputs, such as teacher training and provision of reading materials, there is mixed evidence on their impacts on the intensive margin of schooling. In this context, we provide evidence from a randomized controlled trial of a schooling intervention in Lao PDR, which focused on a combination of literacy activities, including teacher training, provision of reading materials, and community engagement in children's education. We show that the 2-year effect of the literacy activities led to significant improvements in basic and foundational literacy skills for Grade 2 students in Lao PDR. We provide suggestive evidence that improvements in school environment (including more frequent engaging activities in the classroom by the teacher) and improvements in home literacy environment (such as encouraging children to read) play a key role in students' higher literacy outcomes.

Barreto, K., Garcia, P., & Acosta, Y. (2025). **Reconstructing a teachers' discourse to build inclusive interactions using positive discourse analysis and a formative intervention program**. *International Journal of Inclusive Education*, *29*(11), 2090-2114. https://doi.org/10.1080/13603116.2024.2338804
This study aimed to transform the discourse of an English teacher to build peace and promote inclusive interactions, democracy, and social justice in the classroom with students with disabilities. It used formative interventions and positive discourse to transform the teacher's activity system regarding a teacher's discourse. Research has explored whether teachers' discourse promotes a peaceful environment, revealing signs of discrimination and symbolic violence. Studies have focused on raising awareness of the power of teachers' discourse to generate an understanding of its impact. Nevertheless, little is known about teachers' discourse transformation to promote inclusive interactions while teaching English to students with disabilities. The study is framed under the theoretical underpinnings of activity theory aimed at transforming teachers' praxis. Results showed transformation in the teacher's discourse in three main elements: subject, object, and mediation tools.

Bei, E., Zarzycki, M., Incognito, O., & Pecini, C. (2025). **Misconceptions about neurodevelopmental disorders among Italian special education teachers: A mixed-methods study**. *International Journal of Educational Research*, *133*, 102709. https://doi.org/10.1016/j.ijer.2025.102709
Limited research explores Neurodevelopmental Neuromyths' prevalence and educational implications. This study examined Neurodevelopmental Neuromyths among 241 Italian Special Educational Needs and Disabilities (SEND) teachers and their potential instructional implications. A mixed-methods triangulated approach was employed, combining findings from the Neurodevelopmental Neuromyths questionnaire with qualitative open-ended responses on instructional practices. The results indicated a prevalence of approximately 27.9 % for Neurodevelopmental Neuromyths among teachers. Prior attendance in a neuroscience course and reading of scientific magazines served as protective factors. Qualitative analysis revealed four predominant themes in instructional practices to support needs of SEND students: (1) simplifying teaching, (2) personalizing teaching and assessments, (3) empowering school inclusion, and (4) modifying the school/classroom environment. While certain instructional practices aligned with evidence-based approaches, others appeared to be influenced by prevailing neuromyths. The study highlights the importance of targeted interventions, including increased neuroscience training to enhance the overall support for SEND students.

Benson, K. (2025). **Thinking with speculative fiction to (re)imagine just futures for lactating teacher-parents in U.S. schools**. *International Journal of Qualitative Studies in Education*, *38*(7), 1050-1064. https://doi.org/10.1080/09518398.2025.2452631
In fall 2021, I interviewed 6 teachers about their experiences with lactation (pumping) in schools following the birth of a child. Participants recounted heartbreaking stories as the neopatriarchal norms of their institutions clashed against the unpredictable nature of the embodied labor of infant feeding. This pain, however, is an incomplete story; where there is pain, there is also joy. In this article, I discuss how attending to this complexity led to speculative fiction as a form of representation. Using my own utopian short story of lactation in education, I invite readers to consider the strengths of speculative fiction for critical qualitative inquiry broadly, particularly (1) how it creates space to attend to an ethic of reflexive embodiment required by education research into spaces as intimate as lactation, and (2) its limitless potential to (re)imagine just futures beyond the oppressive strictures of an inequitable present.

Bernad, K. (2025). **Des pratiques enseignantes prenant en compte la dimension collective de l'étude, en mathématiques, d'une question par la recherche**. *Éducation & didactique*, (2), 65-83. https://doi.org/10.4000/14b8b
Cet article présente une étude, menée dans le cadre de la Théorie Anthropologique du Didactique, sur la détermination de conditions favorisant, depuis la position de professeur, la mise en œuvre d'un parcours d'étude et de recherche, visant l'enseignement des nombres relatifs tel qu'il était préconisé dans les programmes de mathématiques français en vigueur durant la période 2009-2015. L'analyse, conduite à partir d'une étude de cas d'un professeur expérimenté, met au jour des dimensions de pratiques enseignantes, modélisées en termes de praxéologies didactiques, reposant sur le développement des dialectiques ostensifs-non ostensifs, médias-milieux et individu-collectif, qui prennent en compte la dimension collective de l'étude d'une question par la recherche.

Besse-Patin, B. (2025). **Les formes de l'animation : variété et variations**. *Tréma*, (63). https://doi.org/10.4000/13r5c
Cet article explore la variété et les variations des formes de l'animation socioculturelle. Il s'appuie sur les théorisations des formes de l'éducation, notamment scolaire, pour interroger celles de l'animation et de l'éducation populaire. Il repose sur une enquête ethnographique dans plusieurs accueils collectifs de mineurs et analyse les configurations des séquences proposées aux enfants selon plusieurs dimensions. Il montre ainsi comment ces formes de l'animation se situent sur un continuum entre récréation et éducation.

Besson, M., Courtet, M., Schirrer, M., & Le Bot, G. (2024, juillet). ***Le bien-être des enseignants d'EPS : stratégies pédagogiques et didactiques pour le conserver tout au long de la carrière***. Consulté à l'adresse https://hal.science/hal-05187134
• Introduction et objectifs Dans un contexte où les carrières professionnelles sont amenées à durer plus longtemps, les enseignants d'EPS voient eux aussi leurs carrières s'allonger. Cette conjecture pose donc une problématique de durabilité dans le métier pour les enseignants d'EPS (Cau-Bareille, 2017a,b). L'objectif de notre travail de recherche sera de documenter ce que les enseignants d'EPS mettent en place comme stratégies concrètes et innovantes autant sur le plan pédagogique que didactique pour

conserver leur bien-être tout au long de leur carrière. • Méthodologie Pour répondre à cet objectif, nous avons mené des entretiens semi-directifs auprès de cinq enseignants d'EPS ayant au moins 15 ans d'expérience dans le métier. Lors de ces entretiens, les enseignants sont incités à partager les approches qu'ils ont développées pour gérer les différentes contraintes et pressions liées à leur profession, ainsi que les techniques d'enseignement et les pratiques pédagogiques qu'ils ont adoptées pour promouvoir un environnement positif et soutenant pour eux-mêmes. Les entretiens offriront une occasion précieuse d'explorer les raisons sous-jacentes de ces choix pédagogiques et d'identifier les pratiques les plus bénéfiques pour le bien-être des enseignants d'EPS interrogés. • Résultats et discussion Les résultats de cette recherche sont en cours d'analyse. Cependant, nous nous attendons à ce que la relation pédagogique qu'entretient l'enseignant avec ses élèves soit un élément prioritaire dans la conservation de son bien-être tout au long de sa carrière. • Conclusions et perspectives Cette recherche permet de documenter les facteurs qui influencent le bien-être des enseignants d'EPS et les solutions qu'ils utilisent concrètement sur le terrain pour accéder à un bien-être au travail et le conserver le plus longtemps possible (Garcia et Lantheaume, 2019). Les résultats obtenus portent sur des enseignants engagés, épanouis qui enseignent au collège. Il serait intéressant de comparer ces résultats avec d'autres profils d'enseignants tels que des enseignants de lycée ou des enseignants qui ne se sentent pas bien au travail. De plus cette contribution permettra d'apporter des éléments de réponses aux questions suivantes : Comment des innovations sont mises en place pour répondre à des problématiques comme la durabilité ? Est-ce que les enseignants sont innovants pour préserver leur bien-être dans la durée d'une carrière ?

Beyazoğlu, G., & Özbek, O. (2025). **The attitudes of physical education teachers towards teaching students with disabilities: a qualitative research in Turkey**. *International Journal of Inclusive Education*, *29*(11), 1904-1918. https://doi.org/10.1080/13603116.2024.2317723
This qualitative research examines the attitudes of physical education teachers in schools towards people with disabilities using the theory of planned behaviour. Fourteen (eleven male, three female) physical education teachers who work in a province in Turkey and have 6–25 years of teaching experience participated in the study. An interview form with semi-structured questions was used to collect the data for the study. The interviews focused on the in-class attitudes of the participants towards students with disabilities. The data of the study were analyzed thematically. It was determined that most of the participants exhibited negative attitudes towards students with disabilities while teaching them in physical education classes. In addition to the emergence of culture-specific themes, it was observed that even though the participants received adequate support from their administrators and colleagues, they failed to include students with disabilities in their classes through inclusive education philosophy in the field of adapted physical education.

Borremans, L. F. N., & Spilt, J. L. (2025). **Committing to all students: Examining teacher competence in relationships with disruptive students**. *International Journal of Educational Research*, *133*, 102676. https://doi.org/10.1016/j.ijer.2025.102676
High-quality teacher-student relationships are crucial for the well-being of both students and teachers. Disruptive students are typically at risk for developing conflictual relationships with their teachers, yet researchers hypothesize that competent teachers can successfully cultivate close relationships even in the face of challenging student behavior. Research on teacher self-efficacy has recently yielded new insights, yet little is

known about the specific relationship-building competence dispositions that help foster positive relationships, particularly with disruptive students. This study, first, aimed to further validate the COMMIT-questionnaire which assesses teachers' relationship-building competence dispositions in dyadic interactions. Second, this study aimed to explore the role of teachers' relationship-building competence dispositions in the relation between disruptive student behavior and teacher-student relationship quality. The COMMIT was administered in a sample of 526 teacher-student dyads. Findings supported validity of the COMMIT and highlighted the significance of teachers' relationship-building competence dispositions in establishing high-quality relationships, particularly with disruptive students. Specifically, teachers' attitude and self-efficacy in building closeness and coping with conflict were linked to closer and less conflictual relationships with all students. Teachers' knowledge and self-efficacy in reflective functioning additionally contributed to high-quality relationships for disruptive students. While further research is required to resolve inconsistencies and replicate recent findings, the present study improved our understanding of the teacher competence dispositions that contribute to establishing positive teacher-student relationships, even when that is challenging.

Boukaré, A., & Scelles, A. (2025). **Essaimage d'innovations pédagogiques dans l'enseignement supérieur : l'initiative du podcast Novagogie**. *Questions de Pédagogie pour l'Enseignement Supérieur : écosystèmes de formation pour quelle(s) transformation(s)*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05154973

The Novagogie podcast aims to disseminate and promote educational innovations within CY Alliance. Launched in 2024 and supported by the ANR (French National Agency for Research), it features double episodes exploring innovative practices through exchanges with experts, teachers and students. Analysis of the program shows that it makes an effective contribution to keeping track of, and making visible, pedagogical innovations that are often little-known in higher education institutions, thus helping to spread experience and practices.

Bouten, A., Diloy-Peña, S., Abós, Á., García-González, L., Haerens, L., & De Cocker, K. (2025). **Chaotic (laissez-faire) teaching: The most harmful style for students' psychological needs?** *International Journal of Educational Research*, *133*, 102717. https://doi.org/10.1016/j.ijer.2025.102717

Self-Determination Theory (SDT) has been widely used to understand how different teaching styles impact student outcomes. Previous research has mainly focused on the negative effects of controlling teaching, while the influence of chaotic (laissez-faire) teaching has been less explored. This study examines how students' perceptions of highly chaotic (i.e., abandoning) and highly controlling (i.e., domineering) teaching approaches are related to the satisfaction and frustration of student basic psychological needs in secondary physical education (PE). The study involved 916 students in Belgium (58% girls; 15.37 ± 1.62 years old) and 1124 students in Spain (52% girls; 14.60 ± 1.51 years old). Using linear mixed-effects models, we found that both abandoning and domineering teaching approaches were adversely associated with students' basic psychological needs. The abandoning approach showed the strongest positive association with overall need frustration in both samples. Moreover, the abandoning approach was most strongly associated with competence and relatedness frustration in both countries, as well as with lower competence satisfaction in Spain. Both approaches showed a similar positive relationship with autonomy frustration. This study expands our

understanding of demotivating teaching by demonstrating the harmful potential of highly chaotic teaching, beyond the well-known harmful effects of controlling teaching. The consistency of the findings across both countries highlights the international relevance of this research. These findings suggests that reducing highly chaotic (i.e., laissez-faire) teaching should be a priority in international educational practices and policies. Future research could investigate the causes, effects, and potential moderators of chaotic teaching to further guide educational policy and practice in different cultural contexts.

Brizuela, B. M., Alvarado, M., & Strachota, S. (2025). ***Early elementary school children's use of tables while solving Vergnaud's additive problems***. *44*(2). https://doi.org/10.46298/rdm.15694
This paper describes early elementary school children's responses to additive problems when using paper and pencil representations, specifically when using a table. We explore the following research question: In what ways do tables influence young students' (Grades 1-3; ages 6-8) accuracy and ability to work with additive problems including identifying unknowns and components of the problems? Children from a public school in a diverse suburb of the Northeast of the United States were interviewed individually. Each child was presented with six additive problems taken from Vergnaud's (1982) work. We designed three representational contexts (plain paper and pencil, unlabeled tables or labeled tables), to which children were randomly assigned. We highlight three findings from this study. First, our data emphasize that what children can do depends on the problem context and the tools available to them. Second, our data illustrate how some representations help children with problems that involve a composition of two transformations, but not necessarily with problems of transformation between two measures. Moreover, children are able to respond to some problems more successfully when they are able to engage with them through the use of specific representations. Third, some representations facilitate an explicit attention to types of quantities and problem structure. Implications for instruction are also discussed.

Broux, N., & Deniset, T. (2025). **L'enseignement par la cartographie des controverses : un exemple en France**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wm
L'enseignement par la cartographie des controverses, initié par Bruno Latour est un projet développé au lycée Germaine Tillion qui permet aux élèves d'explorer des questions contemporaines complexes et non résolues. Une controverse est définie comme une question médiatisée opposant plusieurs acteurs aux arguments divergents, croisant différents enjeux et des savoirs scientifiques. Cette approche pédagogique vise à montrer aux élèves les liens entre savoirs scolaires et société, à dépasser les cloisonnements disciplinaires, à développer l'esprit critique face à la profusion d'informations et l'éducation à la citoyenneté dans un monde incertain et polarisé. Elle constitue ainsi une éducation à la démocratie.

Bühler, B., Fütterer, T., von Keyserlingk, L., Bozkir, E., Kasneci, E., Gerjets, P., & Trautwein, U. (2025). **Mapping Mind Wandering to the "Self-Regulated Learning Process, Multimodal Data, and Analysis Grid": A Systematic Review**. *Educational Psychology Review*, *37*(3), 76. https://doi.org/10.1007/s10648-025-10041-3
Attention is crucial for learners to enhance their learning and build knowledge. Sustaining prolonged attention requires students to self-regulate their behavioral, emotional, and

cognitive processes. At the same time, learners engage in mind wandering approximately 30% of the time spent in educational activities, leading to a deterioration in learning outcomes. Despite its prevalence, the integration of mind-wandering research with self-regulated learning (SRL) frameworks remains limited. To address this gap, we first conceptually integrated research on mind wandering and SRL. Second, we assessed the extent to which this integration has been empirically explored by situating research on mind wandering during learning within the self-regulated learning process, multimodal data, and analysis (SMA) grid. To this end, we conducted a preregistered systematic literature review. We reviewed 134 studies from 2010 to 2024, analyzing the employed definitions of mind wandering, especially with regard to meta-awareness, the data streams used for measuring mind wandering, and whether mind wandering was investigated in relation to or in combination with cognitive, affective, metacognitive, and motivational (CAMM) SRL processes. Our analysis revealed that a significant number of studies have examined mind wandering alongside cognitive and metacognitive SRL processes and predominantly using self-report measures. An equal number of studies unobtrusively measured mind wandering through multimodal data streams (e.g., eye tracking, physiology, reaction time), with 27% utilizing machine learning (ML) techniques for assessment. However, most of these reports did not include SRL procedures and only a small number of studies used an integrated analytic approach, combining multimodal assessment and including SRL processes. Overall, affective and motivational processes received little to no attention. This review demonstrates how integrating research on mind wandering into established SRL frameworks can enhance our understanding of their complex interaction and role in the learning process. It revealed a blind spot in studying mind wandering in educational settings in conjunction with SRL processes using multimodal data streams, especially regarding affective and motivational SRL processes. Additionally, the results suggest that this integration can improve the effectiveness of real-time interventions based on automated mind-wandering detection in attention-aware learning technologies, thereby supporting SRL.

Butzbach, M. (2025, juillet 28). **Les enseignants et l'IA : « On a survécu à Wikipédia, on survivra à Chat GPT »**. Consulté 29 août 2025, à l'adresse Alternatives Economiques website: https://www.alternatives-economiques.fr/enseignants-lia-on-a-survecu-a-wikipedia-on-survivra-chat-g/00115746
[Mon métier et l'IA] Alors que les profs considèrent être peu formés sur ces questions, 36 % d'entre eux utilisent les outils de l'intelligence artificielle. Et c'est toute leur manière d'enseigner qui est remise en cause.

Cabrera, M. R. M., & Baguio, J. B. (2025). **Self-awareness and Pedagogical Communication of Neophyte Teachers in Public Elementary Schools**. *Asian Journal of Education and Social Studies*, *51*(7), 190-201. https://doi.org/10.9734/ajess/2025/v51i72113
This study aimed to determine and describe the levels of self-awareness and pedagogical communication among neophyte public elementary school teachers in the Boston District, Division of Davao Oriental. It employed a non-experimental quantitative research design using the correlational method. The respondents consisted of 132 public elementary school teachers selected through universal sampling. Data were analyzed using the mean, Pearson r, and regression analysis. Findings revealed that the self-awareness of neophyte teachers—across the domains of ecological, interpersonal, extended, and private—was high and frequently demonstrated. Similarly,

their pedagogical communication, including cognition, information exchange, organization of activities, roles, and empathy, was also high and frequently demonstrated exhibited. The study found a significant relationship between self-awareness and pedagogical communication. Furthermore, it was established that the domains of self-awareness significantly influenced the pedagogical communication of neophyte teachers. Based on these findings, it is recommended that neophyte public school teachers may benefit from attending seminars and training programs provided by the Department of Education as part of the Teachers Induction Program. These initiatives may offer in-depth professional development opportunities aimed at enhancing instructional competence and providing learners with well-supported, rigorous academic experiences.

Çağlayan, İ., & Başal, H. A. (2025). **Investigating preschool teachers' perspectives and practices on cultural diversity: an ethnographic case study**. *International Journal of Inclusive Education*, *29*(10), 1706-1725. https://doi.org/10.1080/13603116.2023.2291099
This study focuses on examining the perspectives of preschool teachers on cultural diversity in the classroom environment and determining their teaching strategies and techniques to address cultural differences. To this end, it aims to explore the perspectives of the preschool teachers who teach in public, private, and international preschool institutions and have immigrant students in their classes, on cultural diversity in the classroom, and also to understand how teachers' views on diversity are reflected in classroom practices. Employing an ethnographic case study approach, the research finds that the participating teachers perceive diversity at varying levels. Particularly notable is the discovery that educators in institutions where cultural diversity is a relatively recent phenomenon often lack awareness of changing demographics, resulting in a limited understanding of diversity. Additionally, there is a strong relationship between teachers' perspectives on diversity and their classroom practices. Furthermore, the study highlights a crucial distinction between teachers' perspectives on cultural diversity and the actual experiences of children within the classroom setting.

Calafato, R. (2025). **Multilingualism and Self-Development: Insights Into Teachers' Practices and Predictors**. *European Journal of Education*, *60*(3), e70230. https://doi.org/10.1111/ejed.70230
Self-development is vital for enhancing language teaching ability (LTA), a key component of instructional effectiveness. While prior research on LTA self-development has emphasised the roles of teacher cognition and emotion, less attention has been paid to teachers' linguistic repertoires. Yet, language teachers may draw on diverse linguistic resources that shape not only their teaching but also their self-development. Using a complexity theory framework, this study investigated the relationship between university language teachers' LTA self-development practices and their multilingualism, mindsets, anxiety, cultural orientations and perceptions of the societal and institutional status of the languages they teach, as measured by a questionnaire. Participants were teachers of English, French, German and Spanish. The findings revealed significant variation in LTA self-development practices: English teachers reported lower engagement in research-focused activities compared to their counterparts teaching French, German and Spanish. The findings also indicated that multilingualism, specifically, the contextual use of multiple languages, emerged as the strongest and most consistent predictor of LTA self-development, surpassing anxiety, mindsets and cultural orientations. This finding, coupled with the significantly lower research engagement reported by English teachers,

highlights the centrality of active multilingual practice in LTA self-development and underscores the need for more targeted initiatives that leverage language teachers' linguistic resources and address subject-specific disparities.

Cao, J., & Luo, H. (2025). **Combining virtual reality and EEG biofeedback for enhanced EFL learning: a sociocultural approach**. *Education and Information Technologies*, *30*(11), 15299-15328. https://doi.org/10.1007/s10639-025-13348-4
This study investigated the effectiveness of a Virtual Reality (VR) intervention with integrated Electroencephalography (EEG) biofeedback (VR-EEG) in enhancing English as a Foreign Language (EFL) learner proficiency compared to a traditional classroom setting. Learners (N = 60) were randomly assigned to either the VR-EEG group or the traditional classroom group. Both groups received 60 h of EFL instruction over four weeks. The VR-EEG group participated in VR learning environments with real-time adjustments based on their EEG data, while the traditional classroom group received conventional EFL instruction. Pre-test and post-test assessments evaluated EFL proficiency in vocabulary knowledge, grammar accuracy, speaking fluency, and learner engagement. The results revealed that the VR-EEG group demonstrated a statistically significant improvement in overall EFL proficiency, particularly in vocabulary acquisition, compared to the traditional classroom group. Additionally, the VR-EEG group reported higher levels of engagement. EEG data analysis for the VR-EEG group provided preliminary insights into the neural correlates associated with performance and engagement within the VR environment, specifically examining how alpha and beta wave activity relate to attention and cognitive processing during language learning tasks. This analysis explored the potential of EEG biofeedback to optimize learning by dynamically adjusting task difficulty and providing personalized support within the learner's Zone of Proximal Development. These findings suggest that VR-EEG technology has promising potential as a method for enhancing EFL learner proficiency and warrants further investigation.

Carton, C., & Ghyselen, A. (2024). ***Intégrer l'IA générative dans la conception des évaluations***. Consulté à l'adresse https://hal.science/hal-05165710
L'ouverture de ChatGPT au grand public fin 2022 et la généralisation de l'usage des systèmes d'intelligence artificielle générative (IAG) ont suscité des questions dans le monde enseignant : si un outil peut instantanément produire une réponse cohérente à des devoirs, comment évaluer les étudiants ? Pour répondre localement à ces questions, l'Université Le Havre Normandie (ULHN) a mis en place en 2023 un groupe de travail sur l'Intelligence Artificielle, qui s'est rapidement associé à un projet ANR, le projet NORMANTHIIA, avec pour objectif de développer la littératie sur le sujet à l'université. Dans le cadre de cette initiative, l'équipe d'appui pédagogique de l'ULHN a constaté une forte demande d'éclaircissements sur les opportunités et les menaces que peuvent représenter les IAG. En particulier, la question de savoir comment évaluer tout en évitant ou en intégrant les IAG est abordée lors des événements et formations proposés par ce groupe de travail. Cette initiative s'inscrit dans un contexte général, et le sujet de l'IA dans l'enseignement supérieur a gagné en popularité aussi bien dans les médias, la recherche, ou les cellules d'accompagnement pédagogiques. Afin de replacer cette question dans le contexte des sciences de l'éducation et du champ de recherche sur l'IA appliquée à l'éducation (IAEd), nous proposons une étude bibliographique sur l'évaluation et l'IAG. Nous nous intéresserons d'abord aux problématiques liées à ce sujet, puis nous aborderons les compétences à évaluer ainsi que les modalités explorées.

Castaño-Muñoz, J., Moreno-Morilla, C., Reina-Parrado, M., & Lopez-Cobo, I. (2025). **Unheard voices: Identifying aspects for an inclusive digital education through the lens of low-income contexts schools**. *Education and Information Technologies*, *30*(13), 17909-17930. https://doi.org/10.1007/s10639-025-13490-z
This study explores the perceptions, experiences and challenges of schools located in disadvantaged areas regarding the integration of digital technologies in their functioning. Through eight case studies, in which principals, teachers and students were involved, we identified the main challenges that these schools face every day, which were grouped into three areas: a) breaking the hidden digital divide, b) teacher training for culturally responsive teaching, and c) use of technology as a bridge between home and schools. The results show that, in order to prevent digitalisation from increasing the existing divide among schools of different socioeconomic and cultural levels, it is necessary to design inclusive policies for educational digital transformation that take into account the particularities and voices of these schools.

Çetin, S. (2025). **Equity in assessment: Addressing systemic barriers for visually impaired students**. *International Journal of Educational Research*, *133*, 102757. https://doi.org/10.1016/j.ijer.2025.102757
This qualitative study explores barriers that visually impaired students face in Turkey's high-stakes educational assessments, employing the social model of disability. Through semi-structured interviews with 24 visually impaired adults (aged 20–42), three themes emerged: (1) Accessibility and Accommodation Challenges, including inadequate braille materials, inaccessible exam centers, and untrained readers; (2) Lack of Teacher Training, reflecting educators' unpreparedness and discriminatory attitudes; and (3) Technological Solutions and Gaps, where assistive tools like screen readers are beneficial but limited by cost and infrastructure. Findings reveal how Turkey's assessment system, rooted in a medical model, perpetuates inequities, particularly for low-income students. Inconsistent accommodations, such as extra time and reliance on poorly trained readers, hinder equitable participation. The study proposes standardized accommodations, universal design for learning (UDL)-based teacher training, and state-funded technologies to transform assessment practices. Focusing on visually impaired students' voices challenges normative paradigms and contributes to global discourses on inclusive education. Turkey's experiences offer lessons for low- and middle-income countries (LMICs), where resource constraints mirror these barriers, and high-income nations, where inconsistent implementation persists. The findings advocate a social-relational model, redefining disability as a product of structural obstacles, and call for proactive, inclusive assessment systems worldwide.

Chan, N. N., Bailey, R. P., Tan, M. H. J., Dipolog, G. F., Tan, G. W. H., Motevalli, S., … Ang, C. S. (2025). **Generative artificial intelligence in a VUCA world: the 'Lived Experiences' of Southeast Asian teachers' use of AI in higher education**. *International Journal of Educational Research*, *133*, 102733. https://doi.org/10.1016/j.ijer.2025.102733
This study explores how generative intelligence (GenAI) is used in teaching and learning, assessments, and research at Southeast Asian (SEA) universities. Using hermeneutic phenomenology as the philosophical underpinning and research methodology, SEA teachers' 'lived experiences' of using ChatGPT and other GenAI tools were uncovered. 38 teachers from 10 SEA countries participated in 11 focus group interviews over five months. Three themes emerged: Learning Anew; Disequilibrium and Lack of Rootedness;

and Ambiguity about New Norms, New Practices. It was found that teachers work with GenAI in deeply personal, fragmented, and continuously evolving ways. GenAI took the form of novel work companions, enhancing the efficiency and effectiveness of some work practices. It also was a disruptor to old habits of thinking, behaviour and practices. Teachers were in a state of disequilibrium in this new world beset by VUCA (volatility, uncertainty, complexity, and ambiguity). Some felt overwhelmed and 'at breaking point'. A lack of rootedness in teachers' beliefs and practices emerged. Teachers were generally against the notions of plagiarism and academic integrity held by students who believed the ends justified the means. However, with new ways of teaching, learning and assessment, many teachers recognised their beliefs and practices would have to change. Thus, in the absence of detailed AI guidelines, they called for the urgent need to establish boundaries and teach AI literacy to promote innovative and responsible use. In this VUCA world, more targeted change management training for teachers and students was strongly needed.

Chen, C.-H., Huang, K., Hu, P.-H., & Krautinger, H. (2025). **Impact of rewards in a digital game on computational thinking: Mediation by tension and moderation by competition**. *Education and Information Technologies*, *30*(12), 16575-16600. https://doi.org/10.1007/s10639-025-13444-5
Although proponents of digital game-based learning (DGBL) argue that educational games engage students and afford better learning outcomes, the impact of specific game elements on computational thinking (CT) outcomes and motivation remains unclear. Research suggests that different game elements in DGBL may elicit varying levels of motivation and affect outcomes. In a digital game designed for CT learning, this study examined the complex relationship among rewards, competition, motivation, and learning outcomes. Data were collected from 216 secondary school students across ten different classes, who were randomly assigned to one of five conditions: power-up rewards with competition, power-up rewards only, customization rewards with competition, customization rewards only, and a control condition with no rewards or competition. Regression analysis revealed that power-up rewards impacted CT learning indirectly by reducing tension, although they did not directly influence motivation or CT outcomes. Customization rewards showed no significant effects on motivation or CT outcomes. Although competition alone did not significantly influence motivation or CT outcomes, its combination with power-up rewards weakened CT outcomes compared with power-up rewards alone without competition. The study suggests that competition may dilute the positive effects of rewards, emphasizing the need for careful integration of reward structures in DGBL. The study provides valuable insights for designing DGBL interventions that balance rewards and competition while minimizing tension to achieve optimal learning outcomes.

Chen, J., Mokmin, N. A. M., Shen, Q., & Su, H. (2025). **Leveraging AI in design education: exploring virtual instructors and conversational techniques in flipped classroom models**. *Education and Information Technologies*, *30*(12), 16441-16461. https://doi.org/10.1007/s10639-025-13458-z
The History of Design course is a foundational component for art and design students; however, many students perceive it as abstract and unengaging, mainly due to its highly conceptual nature and traditional lecture-based teaching methods. To address these challenges, this study investigates the impact of AI-generated virtual instructors and a conversational teaching style on academic achievement, cognitive load, and student

engagement in the flipped classroom. This study employed a 2 × 2 experimental design, with 124 first-year design students randomly assigned to four experimental conditions: human-formal (HF), human-conversational (HC), AI-generated-formal (AF), and AI-generated-conversational (AC). The results indicate that the AI-generated virtual instructor significantly enhances affective engagement and has a comparably beneficial effect on academic performance and cognitive load compared to the human instructor. Furthermore, the conversational teaching style considerably improves students' academic performance, reduces cognitive load, and fosters engagement. These findings suggest that integrating generative AI tools with conversational teaching style within a flipped classroom model not only optimizes students' learning experiences but also offers a practical framework for reducing educators' workloads while contributing valuable insights into the application of generative AI in education.

Chen, P., Wang, R., & Chen, X. (2025). **Exploring the emergent role configuration and behavioral pattern in middle school collaborative programming learning**. *Education and Information Technologies*, *30*(13), 17881-17907. https://doi.org/10.1007/s10639-025-13440-9
Collaborative learning is a widely used teaching model in programming education. A deeper understanding of the roles and behavior patterns within collaborative learning could improve its performance. In this study, an emergent role configuration and behavioral pattern are analyzed using audio and video data from 10 groups in a 7th-grade programming course. First, the study applies content analysis to construct the emergent role framework for collaborative programming learning. Then, learners' role behavioral events and behavioral sequences among the high- and low-performance groups are identified using lag sequential analysis. A total of 1555 emergent role behaviors are generated. The results show that focus on task and process is a special emergent role of collaborative programming; and compared to the low-performance group, the high-performance group exhibited a more balanced distribution of emergent roles and more orderly behavior patterns. Specifically, high-performance groups demonstrated better team spirit, feedback consciousness, participation enthusiasm, a friendly and equal discussion environment, and effective resolution strategies for negative emotional roles. These findings will guide teachers in designing high-quality collaborative programming activities and assist students in developing programming competency.

Chen, S., Yin, H., & Cheung, A. C. K. (2025). **How professional capital empowers ICT Integration: The roles of teachers' constructivist belief, differentiated instruction and AI literacy**. *International Journal of Educational Research*, *133*, 102715. https://doi.org/10.1016/j.ijer.2025.102715
Research has yet to fully uncover how professional capital translates into effective ICT integration by teachers in the age of artificial intelligence. Grounded in the Technological Pedagogical Content Knowledge (TPACK) framework, this study analyzed data from 1015 Chinese middle school teachers using structural equation modeling. This study unveiled that: (1) Professional capital was positively associated with constructivist belief and differentiated instruction, respectively; (2) Professional capital was positively related to ICT integration via the mediating roles of differentiated instruction and AI literacy; (3) Although constructivist belief showed no significant association with ICT integration, gender and disciplinary differences emerged; (4) A sequential mediation chain of constructivist belief, differentiated instruction and AI literacy was identified; (5)

AI literacy served as both an outcome of differentiated instruction and a catalyst for ICT integration. These results extend the TPACK framework by incorporating AI literacy and differentiated instruction and offer practical insights for teacher development programs aiming to strengthen teachers' technological pedagogical knowledge (TPK), aligning pedagogical philosophy, teaching practices, and emerging technology.

Chen, Y., Zhi, Y., & Derakhshan, A. (2025). **Integrating Artificial Intelligence (AI) Into the English as a Foreign Language Classroom: Exploring Its Impact on Students' Achievement Emotions and Willingness to Communicate (WTC)**. *European Journal of Education*, *60*(3), e70157. https://doi.org/10.1111/ejed.70157
This intervention study strived to uncover the significance of Artificial Intelligence (AI) in L2 classrooms by exploring its impact on English language learners' achievement emotions and willingness to communicate (WTC). The study also examined the interrelationship between English learners' achievement emotions and their WTC in AI-powered classrooms. To these aims, a group of Chinese English students (N = 204) was randomly divided into the control and treatment groups. Prior to commencing the experiment, two pre-designed inventories were administered to both the control and the treatment group. Following the initial assessment, students in the treatment group (N = 107) received AI-based instruction for a period of 6 weeks. In parallel, students in the control group (N = 97) were subjected to conventional education. At the conclusion of the experiment, the pre-designed surveys were distributed among the control and treatment groups. The results of the experiment showed that students in the treatment group, who received the AI-based instruction, exhibited a higher increase in their positive achievement emotions and WTC compared to their counterparts in the control group. The results also evinced a strong and favourable connection between students' WTC and their positive achievement emotions. The study offers precious insights for educational leaders and language teachers regarding the benefits of integrating AI into L2 classrooms.

Cheutin, B., Mesloub, S.-A., & Castaing, C. (2025). **Les simulations de conférences des Nations unies sur les changements climatiques : une expérience pédagogique originale en France**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w1
Depuis 2023, l'Agence française de développement (AFD) et le ministère de l'éducation nationale se sont associés avec l'ONG Office for Climate Education pour développer des simulations de conférences des Nations unies sur les changements climatiques (COP). Les élèves sont invités à incarner différents acteurs de ces négociations : États, ONG, entreprises privées, journalistes. Ce dispositif éducatif et pédagogique innovant propose une expérience originale, à la confluence de plusieurs enjeux éducatifs majeurs : notamment l'ouverture à la complexité des thématiques du développement durable, l'esprit critique et le rapport à l'information. En octobre 2024, 75 lycéens venus de France et de plusieurs pays ont ainsi participé à une grande simulation de COP climat.

Chevalère, J., Berthon, M., Rocher, N., Pailler, D., Mazenod, V., & Huguet, P. (2025). **A digital safe space for learning: how computer-assisted instruction supports students with lower academic self-concept**. *Education and Information Technologies*, *30*(11), 15413-15440. https://doi.org/10.1007/s10639-025-13424-9
Computer-assisted instruction (CAI) is a valuable approach for managing classroom heterogeneity by providing feedback tailored to students' individual needs. While

previous research has primarily focused on the cognitive mechanisms underlying CAI's effectiveness, it has often overlooked the social-cognitive processes that may contribute to its success by offering students a private learning space away from the judgement of their peers. The present study compared CAI to conventional classroom instruction over a two-week period with 389 tenth-grade history-geography students. First, we expected that CAI would result in better academic learning compared to conventional classroom instruction. Second, we tested alternative hypotheses, that learning gains in CAI would vary depending on students' levels of academic self-concept (social-cognitive hypothesis) and prior knowledge (cognitive scaffolding hypothesis). Consistent with the social-cognitive hypothesis, multilevel modeling revealed that students with initially lower levels of ASC experienced higher learning gains in CAI compared to conventional classroom instruction, while no benefits were observed for students with lower prior knowledge. Additionally, our results indicate a disruption of the predictive relationship between ASC and subsequent academic performance in the CAI group, compared to the presence of this association in the conventional classroom instruction group. These findings suggest that CAI benefits low-confidence students regardless of their initial ability level and that this method offers a protective effect against the impact of perceived incompetence on subsequent performance.

Chiu, E. Y. Y. (2025). **Teaching through the storm: The role of 'critical emotions' in shaping teachers' pandemic transformations**. *International Journal of Educational Research*, *133*, 102687. https://doi.org/10.1016/j.ijer.2025.102687
This research examines the emotional journeys of teachers transitioning to online teaching during the pandemic, revealing how emotions shape teaching practices and professional identity. Grounded in Mezirow's theory of transformative learning, this study positions transformative learning as the theoretical lens through which teachers' emotional experiences are analysed. As education becomes increasingly digital, understanding the psychological and affective dimensions of teaching is essential. The study argues that intense emotions, from anxiety and frustration to joy and fulfilment, act as catalysts for critical self-reflection, triggering transformative learning processes. Teachers engage in meaning-making that fosters professional growth and rediscovery of their passion for teaching by confronting challenges, reassessing their roles, and adapting pedagogies. Through qualitative case studies of five teachers from Germany, France, and Italy, this research investigates how emotional upheaval prompts reflection, adaptation, and profound shifts in professional perspectives. Thematic and narrative analysis demonstrate that transformative learning, driven by emotional engagement, enables teachers to reinterpret negative experiences, cultivate resilience, and emerge with renewed dedication. The findings underscore transformative learning as a vital framework for understanding how teachers convert emotional challenges into opportunities for empowerment and pedagogical innovation.

Chou, C.-M., Shen, T.-C., & Shen, T.-C. (2025). **Using structural equations to explore the impact of university students' technology acceptance on AR-supported learning effectiveness: mediation variable of self-regulation**. *Education and Information Technologies*, *30*(12), 16771-16804. https://doi.org/10.1007/s10639-025-13469-w
AR-supported instruction has been verified to improve students' problem-solving skills. This study investigated 1041 university students and developed an empirical research model that combined technology acceptance, self-regulation, and AR-supported learning effectiveness with the structural equation model (SEM). At the same time, content

analysis was used to understand students' feedback and reflections on their AR learning experience, and a total of 677 feedbacks were received. This research found that technology acceptance and self-regulation are significantly and positively related to augmented AR-supported learning effectiveness. First, students' perceived enjoyment and perceived innovation are the most important factors for technology acceptance, among which perceived innovation significantly impacts teachers' understanding of students' learning outcomes. Secondly, the interpersonal influence of self-regulation significantly impacts students, and it can be seen that friends' opinions are the source of information. Third, students' cognitive strategies of self-regulation will affect students' AR-supported learning. The influence pattern and empirical data of the technology acceptance, and self-regulation on AR-supported learning effectiveness exhibited a good fit. Finally, through the content analysis of students' feedback on AR learning experience, it can be seen that students are interested in AR's ability to provide diverse and immersive learning experiences, AR visual interactivity, personalized learning and motivation, but AR learning challenges also have their limitations. Inspire teachers to build learner-centered environments and stimulate students' motivation to learn through AR.

Chusseau, E. (2025). **Une vision systémique des projets de transformation pédagogique**. *Questions de pédagogies dans l'enseignement supérieur*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05172628
The 13th edition of the QPES conference invites the academic world to question, (re-)think and support the transformations of higher education. This communication presents the first results of doctoral research about teacher-researchers, leaders of educational transformation projects. As part of obtaining several national calls for projects, the establishments have engaged in an educational transformation. A system of calls for expressions of interest allows teachers to submit innovative projects. We seek to describe the projects selected and implemented, their developments over several years and to understand the changes taking place in the activity of the teacher-researcher involved in an educational transformation project. We present a longitudinal study over five years which is based on three interviews carried out between 2018 and 2023 with seven university teacher project leaders from different disciplines. The culturalhistorical activity theory (Engeström, 1987) is used to study the activity system of teacherresearchers, project leader. The results contribute to the reflections taking place at QPES on pedagogical transformation, with a particular focus on the teacher project leader's role as a change agent in developing new collective activity.

Çiftçi, E. Y., & Çinpolat, E. (2025). **Internationalisation at Home and Teacher Education: Engaging International Students as Conversational Partners**. *European Journal of Education*, *60*(3), e70213. https://doi.org/10.1111/ejed.70213
Internationalisation at Home (IaH) provides a valuable yet under-utilised approach to fostering intercultural engagement in teacher education, particularly for non-mobile prospective teachers. In this study, we examined the impact of an IaH initiative in which prospective teachers were paired with international students as conversational partners within a course on language and intercultural communication. We analysed focus group interviews and written reports to explore how this experience shaped the prospective teachers' intercultural and professional development. Our analysis showed that integrating coursework with the partnership encouraged participants to critically reflect on their biases, challenge ethnocentric views and adopt a more inclusive perspective. They also gained confidence in working with diverse student populations and developed

a deeper appreciation for language learning. Overall, our study outcomes suggest that thoughtfully integrated IaH initiatives can support inclusive, culturally responsive teaching and provide meaningful intercultural experiences for prospective teachers who do not participate in study abroad programmes.

Claro, M., & Castro-Grau, C. (2025). **Developing teacher digital competencies in the age of AI. Chile case study**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vo
Since the 1990s, Chile has prioritized digital technologies in education, but the rise of AI presents new challenges for educators. The Observatory of Digital Educational Practices (OPED) at Universidad Católica de Chile has developed a training model with four dimensions – Personal and Social Development, Digital Learning and Creation, Digital Disciplinary Skills, and Active Digital Methodologies – to prepare future teachers for a digital society. OPED is also designing new curriculum modules to foster critical engagement with AI and align with international trends and institutional policies, and analysing their ability to enhance or redefine teaching practices. The paper highlights that intentional design, ethical considerations, and institutional support are essential for leveraging AI's potential in education.

Coruhlu, T. S., Calik, M., Nas, S. E., Cepni, S., Ergul, C., & Almalı, S. K. (2025). **Effectiveness of the prediction–observation–explanation strategy on students with mild intellectual disabilities**. *Asia Pacific Education Review*, 26(3), 687-702. https://doi.org/10.1007/s12564-024-09940-x
This study aimed to investigate the effects of the prediction–observation–explanation (POE) strategy using worksheets designed for the "living things and life" topic on conceptual understanding and science process skills (SPS) of students with mild intellectual disabilities (SMIDs). The sample consisted of 12 SMIDs (eight students for the main study and four students for the pilot study). The data were collected using SPS forms and interview protocols. The results showed that the POE worksheets enriched with active learning techniques positively developed SPS levels and helped the students overcome their alternative conceptions of the "living things and life" topic. The study also indicated that the SMIDs' differences and prior knowledge significantly impacted their learning outcomes. Accordingly, future studies should develop teaching activities and interventions based on SMID differences.

Courtade, F., & Paquet, L. (2025). **Droit d'auteur et enseignement supérieur : cas particulier de la création d'un cours sur des notions dites fondamentales**. *Recherches en éducation*, *58*. https://doi.org/10.4000/13l6e
Lorsque dans le cadre de leur mission d'enseignement, les enseignants-chercheurs et les professeurs d'université créent des ressources pédagogiques, quelle que soit leur forme, orale, écrite, dessinée, multimédia ou numérique, ils peuvent être confrontés à la question du respect de leurs droits d'auteurs sur celles-ci. La lutte contre le plagiat s'est fort heureusement structurée, de surcroit depuis la démocratisation des outils numériques, Internet et les réseaux sociaux, et désormais des technologies d'intelligences artificielles, en particulier génératives. La question qui nous intéresse ici se concentre précisément sur les cours, les ressources pédagogiques créées par les enseignants-chercheurs ou professeurs d'université. La jurisprudence nous indique que tous les cours ne sont pas considérés par le législateur comme nécessairement des œuvres de l'esprit protégeables par le droit d'auteur, d'autant plus s'ils développent des

notions, définitions ou principes dits fondamentaux. Notre propos est donc de tenter de définir ce qui pourrait permettre la qualification d'un cours comme œuvre de l'esprit. Nous balaierons dans un premier temps la jurisprudence sur le sujet pour identifier les situations où la cour a considéré que les cours n'étaient pas des œuvres de l'esprit, et ce qui, en creux, nous permettrait de définir ce qui fait qu'ils le sont. Et dans un second temps, nous nous proposons de puiser dans les sciences de l'éducation ce que nous avancerons être le « triplet fondamental de la conception pédagogique » pour apporter ce que les juristes appellent un faisceau d'indices pour aboutir à une telle conclusion.

Dahri, N. A., Yahaya, N., Vighio, M. S., & Jumaat, N. F. (2025). **Exploring the impact of ChatGPT on teaching performance: findings from SOR theory, SEM and IPMA analysis approach**. *Education and Information Technologies*, *30*(13), 18241-18276. https://doi.org/10.1007/s10639-025-13539-z
This study explores the impact of ChatGPT on educational efficacy using the Stimulus-Organism-Response (SOR) model with supportive concepts from the Self-Determination Theory (SDT) and the Technology Acceptance Model (TAM). To understand how Perceived Autonomy, Perceived Competence, Perceived Relatedness, Perceived Ease of Use, and Perceived Usefulness drive the intention of teachers to introduce AI-related technologies in their teaching practices. We used a quantitative approach with a sample size of 305 teachers selected conveniently in Pakistan. Structural Equation Modeling was utilized to investigate the relationship between the constructs, and Importance-Performance Map Analysis provides the relative importance and effectiveness of each factor in affecting teachers' adoption of ChatGPT. SEM results suggest that Perceived Usefulness, Ease of Use, and Autonomy are significant drivers for improving teachers' intentions to apply ChatGPT in their instruction. More importantly, although Perceived Relatedness increases affective teaching involvement, Perceived Competence does not significantly impact cognitive engagement. Meanwhile, IPMA emphasizes that factors like teaching support and perceived autonomy are likely to increase teachers' confidence and motivation to use AI tools in their teaching. This research identifies ChatGPT's real-world influence on education through increased teaching effectiveness, it allows teachers to design creative lesson plans, incorporate student-led strategies, and personalize learning paths. It offers actionable recommendations for developing AI solutions and training initiatives that ease integration, foster autonomy, and enhance teaching and learning results.

Dan, Q., Yin, H., & Bai, B. (2025). **Three paradigms of inquiry into self-regulated learning (SRL): a critical analysis and ways to transformative and integrated practices**. *Asia Pacific Education Review*, *26*(3), 749-761. https://doi.org/10.1007/s12564-025-10035-4
This paper aims to review and conceptualize how researchers with different human interests understand and approach self-regulated learning (SRL) for their specific purposes. In this narrative literature review, three paradigms of inquiry into SRL guided by Habermas's three human interests (i.e., technical interests, practical interests, and critical/emancipatory interests) are presented in an interpretive way. It was found that, with various human interests, researchers' definitions of SRL, the understandings of the roles of students and social contexts, inquiry interests and intentions, and the methodologies adopted vary. By incorporating Habermas's three human interests into SRL inquiries, this article offers a comprehensive and critical narrative review of the three paradigms in SRL. Discussions about the extension of the established paradigm and the alternative approaches to SRL, emancipatory transformative practices, and the strengths

and weaknesses of the three paradigms and their integrated application provide insights and implications for SRL research and practices.

Decuyper, A., Buseyne, S., Simons, M., & Vanderlinde, R. (2025). **Teachers' self-efficacy in team teaching practices**. *Social Psychology of Education*, *28*(1), 151. https://doi.org/10.1007/s11218-025-10110-z
Team teaching has gained popularity in educational settings. However, research examining the relationship between team teaching and relevant variables remains scarce. The current study fills this gap by examining teachers' self-efficacy in the context of team teaching, considering different models of team teaching. Through a large-scale cross-sectional survey of 458 Flemish teachers engaged in team teaching, this study explores the relationship between teachers' self-efficacy and the use of different team teaching models, using multiple multilevel regression analyses. While a negative relationship was observed between teachers' self-efficacy and the use of the sequential teaching model, positive associations were found with the use of the station teaching model, the parallel teaching model, and the observation model. The more teachers use these models, the more confident they feel in their teaching competencies. These findings underscore the importance of selecting and implementing appropriate team teaching models to enhance teachers' self-efficacy.

Degeuse, L., & Sénécail, A. (2025). **Développer sa professionnalité grâce à la vidéo 360° : exemple d'un dispositif pour la formation des professeurs documentalistes**. *Médiations et médiatisations - Revue internationale sur le numérique en éducation et communication*, (20), 138-151. https://doi.org/10.52358/mm.vi20.435
In France, the INSPÉs (National Institutes of Teaching and Education) prepare students for careers in teaching, education, and training. In response to the challenges affecting teacher recruitment and training (Devos & Paquay, 2013; Dubet, 2020), the INSPÉ of the Bordeaux Academy, in partnership with the INSPÉs of the Poitiers and Limoges Academies, has been testing a new system of 360° video-based pedagogical resources. The aim is to provide future teachers with experiential, embodied, and context-based learning opportunities. This article presents a case study on the use of 360° videos for training school librarians. It outlines the key steps involved, from designing the content to producing and sharing 360° video resources captured in professional settings. The article also examines the initial outcomes, the potential benefits, and the limitations of this system. Finally, it highlights the impact of 360° videos on students' cognitive, emotional, and physical engagement, as well as the collaborative dynamics fostered by the innovative approach.

Demir, K., & Kalman, M. (2025). **Instructional Leadership and Teachers' Instructional Practices: A Serial Mediation by Teacher Autonomy and Collective Teacher Innovativeness**. *European Journal of Education*, *60*(3), e70155. https://doi.org/10.1111/ejed.70155
Instructional leadership is one of the most studied school leadership models in educational leadership and management (EDLM) because of its potential to influence the fulfilment of the core mission of schooling, that is, student learning. This study investigated the serial mediating effect of teacher autonomy and collective teacher innovativeness in the relationship between instructional leadership and teachers' instructional practices. The study was conducted using a cross-sectional correlational research design, with 554 teachers working in public middle schools, high schools, and

art and science centres in a large province in southeastern Türkiye. Results indicated moderate positive relationships between principal instructional leadership, teacher autonomy, teacher collective innovativeness, and teacher instructional practices. Teacher autonomy and collective teacher innovativeness had serial mediating effects in the relationship between instructional leadership and teachers' instructional practices. The study showed that principals' instructional leadership can contribute more to teachers' instructional practices by supporting teacher autonomy and teachers' collective innovativeness in the Turkish educational context.

Demirel, İ. N., & İslamoğlu, H. (2025). **Investigating the Effect of Discipline-Based Art Education Training on Pre-Service Arts Teachers' Teaching Self-Efficacy**. *European Journal of Education*, *60*(3), e70220. https://doi.org/10.1111/ejed.70220
This study examined the effect of Discipline-Based Art Education (DBAE) training on the teaching self-efficacy of pre-service visual arts teachers. A mixed-methods approach was used, combining a single-group pre-test post-test quasi-experimental design with qualitative data analysis. Over two semesters, 24 pre-service teachers took part in a DBAE-enhanced training programme integrated into the "Visual Arts Teaching I and II" courses. Quantitative results showed significant increases in self-efficacy in the areas of preparation, teaching, and diversity. Qualitative data supported these findings, revealing improvements in professional skills, attitudes, and content knowledge. Participants demonstrated high proficiency in applying DBAE's core disciplines—art history, criticism, aesthetics, and production—into lesson planning and instructional materials. Despite difficulties in more abstract areas like aesthetics and criticism, notable progress was achieved. The results emphasise DBAE's potential to boost self-efficacy and pedagogical skills in art education, recommending its inclusion in teacher training programmes to promote holistic and reflective teaching practices.

Deslis, D., Stylianides, A. J., & Jamnik, M. (2025). **Examining teachers' motivational views on Lakatos-style investigation: A value-cost-expectancy approach**. *TWG01: Argumentation and Proof*, *TWG01: Argumentation and Proof*(5). Consulté à l'adresse https://hal.science/hal-05160948
Despite the affordances of Lakatos-style investigation (LSI) for mathematics instruction, research has focused on students, and left a gap in understanding teachers' perspectives. To address this gap, we explore primary teachers' views on incorporating LSI in the classroom, focusing on perceived value, cost, and expectancy for themselves and their students. Through a survey with 331 participants, we found a generally positive inclination towards LSI, though perceptions vary by demographic factors. Female teachers perceive higher personal costs but also higher personal value, while older teachers report lower personal costs and reduced expectations of students. Academic background relates to teacher views, with stronger mathematical foundations linked to higher personal expectancy and lower perceived personal costs. These findings underscore that tailoring teacher education to demographic-specific factors may be crucial for promoting teachers' openness to LSI.

Devauchelle, B. (2025). **Les enseignants, les formateurs et les cadres éducatifs français face à l'intelligence artificielle**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vm
Cet article explore l'impact de l'intelligence artificielle (IA) sur l'enseignement et la formation, mettant en lumière les tensions entre fascination, crainte, et adaptation. En

France, l'IA générative reste marginale en classe, mais est utilisée en périphérie par les élèves et enseignants pour des tâches comme la préparation des cours ou les travaux scolaires. Les enseignants reconnaissent son potentiel tout en redoutant les risques, notamment en matière d'éthique et de tricherie. L'IA adaptative, en phase d'expérimentation, pourrait personnaliser les apprentissages, mais l'accès limité aux équipements reste un obstacle. Les formateurs et cadres éducatifs voient dans l'IA un outil pour optimiser la gestion et soutenir pédagogiquement les enseignants sans les remplacer. Toutefois, des préoccupations éthiques et juridiques, notamment sur la collecte des données, freinent son intégration. La « liberté pédagogique » reste essentielle pour les enseignants, qui souhaitent conserver leur autorité et leur rôle décisionnel. L'intégration généralisée de l'IA nécessitera du temps et un cadre d'usage clair.

Di Lisio, G., Halty, A., Berástegui, A., Milá Roa, A., & Couso Losada, A. (2025). **The longitudinal associations between teacher-student relationships and school outcomes in typical and vulnerable student populations: a systematic review**. *Social Psychology of Education*, *28*(1), 144. https://doi.org/10.1007/s11218-025-10107-8
This systematic review examines the teacher-student relationship (TSR) from an attachment perspective and explores its impact on academic (dis)engagement, (under)achievement and Early School Leaving (ESL) over time. It addresses two objectives: (1) examining the longitudinal influence of TSR on academic outcomes and (2) assessing its effect on vulnerable student populations, including those facing Social Vulnerabilities (e.g., students from ethnic minorities, migrant backgrounds, or living in low socioeconomic conditions), Special Needs (e.g., disabilities or learning difficulties), and Mental Health issues. Additionally, the review considers how individual characteristics such as gender may shape the quality and impact of TSRs. A total of 37 longitudinal studies from ERIC, Academic Search Complete, Scopus and Web of Science were analyzed, using the PRISMA guidelines to ensure transparency and replicability. The results revealed significant associations between the quality of TSR and academic (dis)engagement over time, with smaller effects on academic (under)achievement. Mixed results were found regarding gender. Students from low socioeconomic status, minority backgrounds, and those with mental health challenges experienced poorer TSR, which in turn led to poorer academic outcomes in the long run. For Special Needs students, positive TSRs supported behavioral engagement and academic achievement, while poor relationships were linked to increased conflict and risk of disengagement. The review underscores the importance of supportive and responsive teacher-student interaction in fostering a conducive learning environment over time, especially for vulnerable students. Additionally, it suggests that enhancing TSR quality can act as a protective factor against disengagement and underachievement, thereby reducing the risk of ESL. These findings highlight the need for targeted interventions to improve TSRs, particularly for students at higher risk of educational exclusion. Overall, the study provides a comprehensive understanding of how TSRs influence various academic outcomes over time, offering valuable recommendations for educators and policymakers to support vulnerable student populations.

Ding, Z., Liu, R.-D., Ding, Y., Yang, X., & Yang, Y. (2025). **Moderation is the key: taking too easy or too hard courses increases academic cyberloafing**. *Education and Information Technologies*, *30*(13), 18513-18538. https://doi.org/10.1007/s10639-025-13546-0

Academic cyberloafing, defined as the involvement in non-academic online activities during academic tasks, has emerged as a prevalent concern within higher education. While previous research has identified course-related factors that may influence academic cyberloafing, the specific relation between perceived course difficulty and academic cyberloafing remains underexplored. To address this gap, five studies (N = 1118) were conducted to investigate the relation between perceived course difficulty and academic cyberloafing and the mediating role of learning engagement among Chinese college students. Study 1 employed a questionnaire to investigate the U-shaped relation between perceived course difficulty and academic cyberloafing. Study 2, utilizing an experimental design, further confirmed this U-shaped relation. Studies 3 and 4 demonstrated learning engagement mediated the relation between perceived course difficulty and academic cyberloafing through scenario-based experiments. Finally, Study 5 reinforced these findings by manipulating perceived course difficulty within a real classroom setting, providing additional support for the mediating role of learning engagement. The results emphasize the critical role of students' engagement with course content in influencing their likelihood of engaging in academic cyberloafing, particularly when the perceived course difficulty is moderate. Taken together, the findings have implications for teachers' course design and contribute to a more comprehensive understanding of academic cyberloafing in classrooms.

Dishon, G. (2025). **Frankenstein, Emile, ChatGPT: Educating AI between Natural Learning and Artificial Monsters**. *Educational Theory*, *75*(4), 702-719. https://doi.org/10.1111/edth.70025

The emergence of ChatGPT, and other generative AI (GenAI) tools, has elicited dystopian and utopian proclamations concerning their potential impact on education. This paper suggests that responses to GenAI are based on often-implicit perceptions of naturalness and artificiality. To examine the depiction and function of these concepts, Gideon Dishon analyzes two pivotal texts in thinking about the natural and artificial — Emile and Frankenstein. These are complemented by a third text — a "conversation" between Microsoft's Bing chatbot and New York Times columnist Kevin Roose. Analyses of the natural–artificial relations across the three texts are explored along three key educational aspects: (i) the child's innate nature; (ii) how learning takes place; and (iii) the educators' role. These analyses offer three key implications for thinking about the natural–artificial in education in general, and with respect to AI specifically: (1) illuminating the centrality and ambiguity of notions of naturalness in educational discourse, often conflating its descriptive and normative use; (2) outlining how the natural and artificial are dialectically constructed across the three texts, with an emphasis on the relational view of artificiality in Frankenstein; (3) suggesting that what is novel about GenAI is not its artificial intelligence (AI), but rather its "artificial emotions" (AE) — the emotions attributed to it by humans, and the ensuing relations humans develop with such machines.

Don, H. J., Kim, L. E., & Double, K. S. (2025). **When good results mislead: How positive student outcomes lead teachers to overestimate the effectiveness of their assistance**. *International Journal of Educational Research*, *133*, 102719. https://doi.org/10.1016/j.ijer.2025.102719

Teachers play a vital role in shaping both the emotional and academic outcomes of their students, yet their judgments about the efficacy of the strategies they use to help students may be susceptible to cognitive biases. This study investigates how the base

rates of educational outcomes, including student affect and performance, can create causal illusions in teachers' efficacy beliefs. In two experiments, teachers were instructed to provide advice to a fictitious student completing math problems. In Experiment 1, teachers were informed about the student's affect, while in Experiment 2, they were informed about the student's accuracy on the math problems. In both experiments, no contingency existed between the teacher's advice and the outcomes; that is, their advice did not affect the probability of the student feeling good or getting the math problem correct. However, teachers in the high base-rate conditions, where the student, on average, felt good or performed well on the math problem, consistently reported that their advice was effective, despite the absence of any actual causal effect on student outcomes. Teachers in the low base-rate condition rated their efficacy significantly lower than those in the high base-rate conditions, and these ratings did not differ from zero for emotion regulation efficacy. These findings underscore how base rate effects can misalign teachers' efficacy judgments and suggest that teachers may need additional support and training to help them accurately judge the effectiveness of their actions.

Dos Santos, L. M., Kwee, C. T. T., & Lo, H. F. (2025). **How to teach STEM in increasingly multicultural contexts: the Korean case**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wq
This study investigates the development of culturally responsive self-efficacy among female pre-service STEM (Science, Technology, Engineering, and Mathematics) teachers in South Korea. Based on qualitative research, this study focused on 14 South Korean female pre-service teachers and their understanding of the personal and environmental factors that contribute to cultural responsiveness and self-efficacy. Findings indicated several challenges, including institutional barriers, an examination-oriented curriculum, and professional identity conflicts. However, participants reported positive engagement through reflective practices and bilingual teaching approaches aimed at both domestic and international student populations. The study contributes to our understanding of how to prepare teachers for increasingly diverse classrooms, while indicating the shortages of human resources in STEM education.

Drelick, A. M., Freedman, J. E., McCann, N., & Morettini, B. (2025). **Examining the impact of disability studies in education-infused curriculum on attitudes towards inclusion in a U.S. secondary teacher education programme**. *International Journal of Inclusive Education*, *29*(10), 1687-1705. https://doi.org/10.1080/13603116.2023.2289569
This paper examines the impact of Disability Studies in Education (DSE) aligned curriculum at a United States university on the attitudes of general education pre-service teachers toward inclusive practices. The study employed a pretest-posttest design to compare the attitudes of teacher candidates at the beginning and end of a course that focused on inclusive instruction. Findings indicate that the course positively influenced students' attitudes towards inclusion, particularly in their affective beliefs. Students identified several DSE topics and their cooperating teachers as influential in shaping their inclusive attitudes. We discuss implications of the findings on the development of courses aimed at fostering inclusive attitudes and supporting teachers to navigate the tension between school practices and perspectives in DSE.

Dubois, É., Martin, É., & Patry, D. (2025). **Les conseils municipaux d'enfants, tensions autour des pratiques pédagogiques dans un dispositif d'éducation populaire aux portes de l'école**. *Tréma*, (63). https://doi.org/10.4000/13r55

Le conseil municipal d'enfants (CME) est un dispositif expérimenté par des municipalités depuis les années 1970, qui vise à faire participer les enfants à la vie démocratique de leur ville. Les CME sont encadrés par des animateurs qui, souvent, ont été formés par des associations d'éducation populaire ou par l'association nationale des conseils d'enfants et de jeunes (ANACEJ). Si c'est bien l'éducation populaire, via les animateurs des CME, qui est aux manettes, comment construit-elle son identité propre aux portes de l'école dans ces dispositifs ? Quelles pratiques pédagogiques sont mises en œuvre pour accompagner les jeunes élus dans leur mandat ? À travers la réalisation d'une enquête qualitative par observations, complétée par un travail archivistique, nous proposons de mettre en évidence les tensions relatives aux formes éducatives inhérentes au dispositif depuis ses débuts. Plus spécifiquement, nous cherchons à travers l'analyse des démarches pédagogiques mises en œuvre au sein des CME à questionner la contribution effective de l'éducation populaire à la formation citoyenne des enfants.

Dülger, M., van Leeuwen, A., Janssen, J., & Kester, L. (2025). **Designing a classroom-level teacher dashboard to foster primary school teachers' direct instruction of self-regulated learning strategies**. *Education and Information Technologies*, *30*(11), 14785-14819. https://doi.org/10.1007/s10639-025-13389-9
Self-regulated learning (SRL) is crucial for fostering lifelong learning skills in students, encompassing planning, monitoring, and controlling abilities. Previous research indicates that many students struggle to regulate their learning effectively. In the Netherlands, adaptive learning technologies are widely used to support math education in primary schools, providing direct feedback and adjusting problem difficulty levels. Despite this, students still need to invest effort and monitor their progress, requiring better SRL skills. Previous research emphasized the importance of teachers' direct instruction of SRL strategies for primary school students. Yet, identifying classroom needs accurately and timely remains challenging, especially in large classrooms. Teacher dashboards provide a solution by aggregating, analyzing, and reporting students' learning processes through visualizations. However, existing SRL dashboards have not focused on enhancing direct strategy instruction and lack theoretical grounding. To address these gaps, we developed a theory-based teacher dashboard through iterative co-design. We conducted two rounds of interviews with primary school teachers to gather insights on their current SRL practices and refined prototypes. The first round of results (n = 10) informed the creation of low-fidelity prototypes. The second round of results (n = 11) showed that teachers found the low-fidelity prototypes actionable while they still required further improvement to ensure clarity. Importantly, these interviews underlined teachers' need for a dashboard to better support SRL in the classroom. This study outlines teachers' SRL practices and the initial design steps of a teacher dashboard, laying the groundwork for developing similar dashboards enhancing teachers' SRL practices and potentially improving students' self-regulation.

Elyakim, N. (2025). **Bridging expectations and reality: Addressing the price-value paradox in teachers' AI integration**. *Education and Information Technologies*, *30*(12), 16929-16968. https://doi.org/10.1007/s10639-025-13466-z
This study examines educators' perceptions of adopting Generative Artificial Intelligence (GenAI) tools in education through the lens of the extended Unified Theory of Acceptance and Use of Technology (UTAUT2) model. Using structural equation modeling (SEM) on data collected from 490 participants, the research investigates: (a) the extent to which UTAUT2 constructs explain educators' intentions and behaviors toward AI

adoption, (b) potential deviations from traditional UTAUT2 pathways, and (c) demographic differences in adoption patterns. The findings reveal a Price-Value paradox, where perceived value drives intention but practical barriers reduce actual usage, alongside deviations from traditional UTAUT2 pathways, highlighting the nuanced complexity of AI adoption in educational settings. This research underscores the importance of robust infrastructure, practical training in AI fundamentals, and sustained peer support in bridging the gap between intention and usage. Key drivers such as performance expectancy, hedonic motivation, and social influence play critical roles in shaping educators' adoption behaviors. By validating and extending the UTAUT2 model, the study provides actionable recommendations for policymakers and educators. These findings not only enhance theoretical understanding but also pave the way for future advancements, ensuring the effective and sustainable integration of AI in teaching and learning environments.

Erbas, C., Ture, E., & Sapanca, H. F. (2025). **Exploring meaning-making in instructional technology: A phenomenological study of english language teaching students**. *Education and Information Technologies*, *30*(12), 17289-17322. https://doi.org/10.1007/s10639-025-13450-7
The benefits that different technologies provide to the educational processes have been experienced by educators for years. The advantages hat teachers gain from computers, the internet, different software and technologies that change and develop every passing day have caused students to develop different skills and have also made it a necessity for teachers to be able to use these systems. As a result of these requirements, as a result of the studies of the Higher Education Council and the Ministry of National Education, which regulate higher education in Turkey, courses addressing technology education and the integration of technology into the course have been added to the process. This study aims to understand the technology-based meanings developed by teacher candidates taking the Instructional Technologies (IT) course. Within the scope of the study designed according to Husserl's phenomenology understanding, the study was conducted by 12 English Language Teaching undergraduate students and 3 researchers. It has been observed that the socio-cultural capital of the primary subjects of the study, English Language Teaching students, has shaped their lives along with their technological capital in the post-truth period. It has been seen that gods with high technology skills have created digital victims through digital world tools. It has been observed that people who were victims in the past can become resisters who engage in passive resistance against the digital world, while individuals who were not victims in the past but were aware of their victimization can become characters who actively resist the process.

Exploration of teachers' experiences in the border conflict zone of Jammu region (India): Thriving need for peace building. (2025). *International Journal of Educational Research*, *133*, 102653. https://doi.org/10.1016/j.ijer.2025.102653
Armed conflict affects every individual but students at their developmental age become the worst victims because they lose their learning environment …

Farran, E. K., Gilligan-Lee, K. A., Mareschal, D., Živković, M., Bartušēvica, S., Bell, D., … Gilmore, C. (2025). **Teacher Delivered Block Construction Training Improves Children's Mathematics Performance**. *Mind, Brain, and Education*, *19*(3), 118-129. https://doi.org/10.1111/mbe.70006

There is robust evidence for a causal association between spatial thinking and mathematics achievement. However, most research has been lab-based, with spatial training delivered by researchers. We present a teacher delivered, whole-class 6-week spatial training study that involved professional development for practitioners coupled with teacher-led LEGO® block construction training for 6- to 7-year-olds. Using a quasi-experimental design, N = 409 children completed the training and N = 103 children formed a business-as-usual control group. For spatial ability and mathematics, but not spatial language, children in the training condition showed improved performance relative to controls. This finding extends evidence of the positive effects of spatial training to an ecologically valid, classroom-based, practitioner-delivered context. The findings suggest that classroom opportunities to engage in block building using pictorial instruction are an effective activity for mathematics improvement. Our findings have implications for school curricula where spatial thinking is largely absent; a spatialized mathematics curriculum could raise children's mathematics attainment.

Farran, L. K., Brasher, S. N., Nelson, J., & Stapel-Wax, J. L. (2025). **Talk with Me Baby: Early Language Knowledge Across Disciplines**. *Mind, Brain, and Education*, *19*(3), 155-167. https://doi.org/10.1111/mbe.70007
Early childhood language-promoting initiatives, such as Talk with Me Baby (TWMB), are positively associated with young children's development across multiple domains and contexts. Less is known about the potential impact of TWMB in a rural setting that focuses on training preservice students who serve families from culturally and linguistically diverse backgrounds. This study uses the practical robust implementation and sustainability model (PRISM) to identify facilitators and barriers to implementation in an interdisciplinary academic context at a public university in a rural geographic area in the United States. The sample includes 43 preservice students across three disciplines (speech–language pathology, early childhood education, and special education), who participated in TWMB online training modules, pre and postsurvey, and flipped classroom training followed by focus group interviews. Results reveal an overwhelming support for TWMB with high perceived reach, effectiveness, adoption, implementation, and maintenance, bolstering the need for interdisciplinary training to maximize equity in language input to underserved populations.

Fauvel, M., & Preston, M. (2025). **Dialogue et regards croisés en éducation populaire : co-création et pédagogie au sein d'une résidence artistique de territoire**. *Tréma*, (63). https://doi.org/10.4000/13r5d
L'article « Dialogue et regards croisées en éducation populaire : co-création et pédagogie au sein d'une résidence artistique de territoire » explore les pratiques artistiques coopératives socialement engagées et leur lien avec l'éducation populaire. Écrit à quatre mains par Mikaël Fauvel, directeur de la MJC André Malraux de Montbard et Marie Preston, artiste invitée en résidence à la MJC et enseignante-chercheuse à Paris 8, il aborde les questions artistiques, éducatives et politiques, mettant en lumière l'importance de ces pratiques artistico-pédagogiques pour le renouveau démocratique et la transformation sociale, et plus spécifiquement comment cette alliance participe à inscrire son projet dans des formes d'éducation populaire à la fois mieux ancrées et plus engagées.

Feng, L., Liu, M., & Hou, W. (2025). **EFL Teachers' Acceptance of Generative Artificial Intelligence in Teaching and Academic Research: Use Experience as Moderator**. *European Journal of Education*, *60*(3), e70205. https://doi.org/10.1111/ejed.70205
Generative Artificial Intelligence (GAI) technology, represented by large language models, has driven an in-depth transformation of foreign language education and research. In the era of digital intelligence, how digital technology empowers English as a Foreign Language (EFL) teaching and academic research is a new topic for foreign language educators. This research adopts the integration of UTAUT theory to predict the influence of GAI on EFL teachers' teaching and academic research by conceptualising the EFL teachers' teaching and academic research model (ETTAR Model). The inner relationship within the ETTAR Model was examined using analytical software—Smart PLS 4.0. A five-point Likert online questionnaire on ETTAR was distributed among 132 teachers who teach English at foreign language colleges across seven northern Chinese higher educational institutions. The research results indicated that social influence, performance expectancy, effort expectancy and facilitating conditions positively influence teachers' behavioural intentions to use GAI in EFL teaching and research. Moreover, experience had a positive moderating effect on social influence and the behavioural intentions of EFL teachers utilising GAI. This research further confirmed that EFL teachers' teaching with GAI significantly positively impacts their academic research powered by GAI.

Fernández-Terol, L., & Domingo-Segovia, J. (2025). **Empowering Student Engagement: A Case Study of Transforming Schools Through Professional Learning Communities**. *European Journal of Education*, *60*(3), e12754. https://doi.org/10.1111/ejed.12754
Interest in studying student engagement arises from its predictive role in school success and its potential to address various classroom-related educational issues, such as school failure, low achievement, high dropout rates and student alienation. This article presents a case study set in a challenging Spanish school environment that actively promotes student engagement in learning. The study's goal is to gain a contextual understanding of educational change, exploring the school's educational project development, its journey as a professional learning community, and the foundational elements underpinning such engagement. The findings highlight the pivotal role of curriculum and middle management leadership, shifts in teaching methodologies, the cultivation of collaborative professionalism, the enhancement of professional capital and the establishment of supportive structures and dynamics for student engagement. Moreover, this research suggests that the school's achievements are the outcome of a prolonged and intricate process of institutional development led by effective leadership.

Filiz, O., Kaya, M. H., & Adiguzel, T. (2025). **Teachers and AI: Understanding the factors influencing AI integration in K-12 education**. *Education and Information Technologies*, *30*(13), 17931-17967. https://doi.org/10.1007/s10639-025-13463-2
This study investigates the psychological and pedagogical factors influencing K-12 teachers' readiness to integrate artificial intelligence (AI) into educational settings. An exploratory qualitative approach was employed, involving 66 teachers from 11 disciplines at a private school in Türkiye participating in a professional development program focused on AI-enhanced teaching. Data were collected through online discussion forums and AI-supported learning activity design tasks and analyzed using inductive thematic analysis. Findings reveal that teachers valued AI for its efficiency, interactivity, and adaptability, particularly in tools like ChatGPT and MagicSchool, which supported personalized learning and lesson planning. However, significant challenges

emerged, including technical issues, curriculum misalignment, ethical concerns, and cultural barriers, such as difficulties adapting AI-generated content to local contexts. The study concludes that while AI offers significant potential to enhance education, successful integration requires addressing the identified barriers through targeted support, resources, and ethical guidelines. Implications for further research include exploring diverse educational settings to generalize findings, conducting longitudinal studies to assess long-term impacts, and investigating strategies to align AI tools with existing curricula and ethical standards.

Folny, V. (2025). **Les enjeux du recours à une intelligence artificielle pour la correction d'un test de langues : l'exemple du test de connaissance du français (TCF)**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vt
En 2019, France Éducation International a lancé un projet d'automatisation de la correction des écrits du test de connaissance du français (TCF), en partenariat avec l'Université catholique de Louvain. FEI a développé un modèle basé sur l'apprentissage profond (Deep Learning). Cette solution améliore l'équité, réduit les coûts et optimise le processus grâce à l'intelligence artificielle. L'introduction d'un système de correction automatisé améliore le service aux utilisateurs sans changer fondamentalement le travail des organismes certificateurs. Le temps gagné permet d'améliorer les outils et leur surveillance. Toutefois, il est crucial de mettre en place des mesures de contrôle, de validité, de fidélité et d'éthique, avec des analyses régulières pour assurer la pertinence des résultats

Gallagher, T. L., Bennett, S., Somma, M., & White, R. (2025). **A work in progress: inclusion for students with developmental disabilities from the perspectives of principals and teachers**. *International Journal of Inclusive Education*, *29*(11), 1952-1969. https://doi.org/10.1080/13603116.2024.2326613
Legislatively and practically, school districts around the world have transitioned to more inclusive service delivery for students with disabilities. Despite consistent and meaningful changes across the spectrum of disability, students with Developmental Disabilities (DD) remain segregated in self-contained classrooms at a high rate. Within a Canadian context numbers vary: some provinces are fully inclusive and others continue to segregate students with disabilities. In Canada's most populous province, Ontario, the number of students with Developmental Disabilities (DD) in segregated settings remains consistently high (Bennett, S., D. Dworet, T. Gallagher, and M. Somma. 2019. Special Education in Ontario Schools. 8th ed. St. David's ON: Highland Press). Despite these concerning numbers, individual school districts are trying to shift practices to more fully inclusive service delivery. This paper examines one Ontario school district that transitioned to full inclusive education for students with disabilities. Utilising 10 principal and 21 teacher interviews, this paper examines the perceptions of these stakeholders as they reflect on their transition to inclusion and their experiences. Implications discuss the participants' perceived successes and challenges, and recommendations provide insights to assist school districts in shifting embedded practices of segregation towards full inclusion for all students.

Gan, D., & Nathan, A. (2025). **'They don't teach what we need to know': Israeli youth activists challenge school climate change education**. *International Journal of Educational Research*, *133*, 102749. https://doi.org/10.1016/j.ijer.2025.102749

This study examined the experiences of Israeli youths involved in climate activism, focusing on the role of schools in either supporting or hindering their engagement. Grounded in social movements theory, the research examined environmental citizenship and explored how Israeli youths perceive the role of schools in promoting climate change education (CCE). Using qualitative phenomenological approach, we conducted 19 interviews with youths participating in climate protests and analyzed the vision statements of their schools. The findings reveal a disconnect between young climate activists and their schools, which they perceive as ineffective in supporting environmental action. Students viewed their schools as operating within outdated frameworks that fail to address environmental challenges. As part of the education system, schools do not succeed in providing students with adequate resources, skills, and emotional support to effectively address climate issues. The results suggest a growing divergence between traditional education systems and climate-engaged youths. This trend reflects students' perception that educational institutions neither serve as effective partners in climate advocacy nor offer spaces that meaningfully acknowledge their environmental concerns. Based on these findings, we recommend the following policy measures: Integrate CCE across disciplines through curriculum restructuring; establish formal mechanisms for youth participation in school-based environmental decision-making; provide professional development for educators on CCE and eco-anxiety support; create dedicated spaces within schools for climate activism; and develop recognition systems for environmental engagement as legitimate educational outcomes. Implementing these changes would help bridge the gap between schools and environmentally engaged youth.

George, J., & Babu, N. R. S. (2025). **Understanding Imitated Misbehaviours of Children as Hindrance to Positive Classroom Experiences: An Exploration of Primary School Teachers' Conceptions**. *European Journal of Education*, *60*(3), e70175. https://doi.org/10.1111/ejed.70175
Imitated misbehaviours as a prevalent form of interaction between children often disrupt their classroom experiences. Teachers, being the authority figure in the classroom, are expected to manage imitated misbehaviours and create a classroom climate that can positively influence the children. In line with this, this study analyses the conceptions of teachers regarding the causes of imitated misbehaviours, the impact of imitated misbehaviours on classroom experience, and the strategies used to minimise it. The study used an exploratory qualitative design. The data were collected from in-depth interviews of 20 primary school teachers. From the thematic analysis of the data, three themes emerged: recreated realities, classroom disconnection and adaptable classroom structure. The findings of the study show that from teachers' experiences, children who show imitated misbehaviours are often unaware of their actual consequences. The study also found that teachers mostly equip reactive strategies rather than proactive strategies to deal with imitated misbehaviours. The results of the study are very significant as they stress the essentiality of appropriate representation among teachers to deal with inappropriate behaviours of children and provide a classroom climate that can enrich their experiences.

Germein, S. (2025). **Agentic education for the Anthropocene: an example from Himalayan India**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w5

The current and emerging uncertainties of the Anthropocene pose a challenge for education. How can we best educate our children to survive and thrive, with optimism for the future? We need to rethink education at a paradigmatic level. A small school in India, operating for over 75 years, offers such a paradigm-shifting education, based on Gandhian principles. This education, with its holistic approach to learning and ethical engagement with the community, provides an exemplar of a relational process of ethico-onto-epistemology. The resulting transdisciplinary and transformative pedagogic principles are transferable to other schools, within their own cultural contexts.

Gladstone, J. R., Schroeder, N. L., Heidig, S., Zhang, S., Palaguachi, C., & Pitera, M. (2025). **Do Pedagogical Agents Enhance Student Motivation? Unraveling the Evidence Through Meta-Analysis**. *Educational Psychology Review*, *37*(3), 72. https://doi.org/10.1007/s10648-025-10050-2
The use of pedagogical agents (PAs) as learning tools within digital learning environments is rising. Previous research shows that PAs can aid learning across various domains and age groups, but their impact on learner motivation is unclear. As PAs become more integrated into learning systems, building an in-depth and theory-driven understanding of how PAs may influence learners' motivation is necessary. We used four prominent motivation theories to guide our examination of the impact of PAs on learner motivation: social cognitive theory, situated expectancy-value theory, interest theory, and self-determination theory. A total of 58 articles met our inclusion criteria. We conducted seven, three-level meta-analyses that included 28 potentially moderating variables and used correlational and hierarchical effects and robust variance estimation. Our results revealed that PAs significantly influenced self-efficacy expectations and interest but did not significantly influence other theory-driven motivational beliefs. We discussed these findings from different theoretical perspectives and provided implications for practice.

GPE KIX. (2025). ***Strengthening Teacher Professional Development: Policy and Practice Insights*** (p. 9) [Policy Brief]. Consulté à l'adresse GPE KIX website: https://www.gpekix.org/knowledge-repository/strengthening-teacher-professional-development-policy-and-practice-insights

Grazia, V. (2025). **Teacher justice and (A)motivation: a longitudinal study in secondary school**. *Social Psychology of Education*, *28*(1), 142. https://doi.org/10.1007/s11218-025-10105-w
Within Self-Determination Theory's theoretical framework, student motivation is considered a crucial factor for school success and well-being, related to the capacity of the learning environment to meet individuals' psychological needs. The purpose of the present study was to analyze the longitudinal trajectories and associations of students' lack of autonomous motivation (amotivation) and a specific feature of the learning environment, students' perceptions of teacher justice, over the course of one school year, and the concrete teacher practices associated with this feature. Students in 9th to 13th grade (Mage = 16.28, SDage = 1.57, 69% male, 90% born in Italy) completed a self-report questionnaire in three waves over one school year (N = 787 in T1, 772 in T2, 836 in T3). Latent growth curve models (LGCM) were estimated to test individual trajectories and the interaction between motivation and teacher justice as parallel processes. The models indicated an increasing trajectory for both amotivation and perceptions of teacher justice, with a significant negative association among them. Increase in students' perceptions of teacher justice were predicted by teachers' support, clarity of assessment

criteria and equity in the distribution of resources. Results highlight the importance of focusing on teacher justice as a crucial feature of the learning environment both from a theoretical perspective and for practical intervention in school.

Güngör, M. N. (2025). **Empowering Pre-service Teachers for Social Justice: A Case Study in Türkiye's Post-Disaster Education Landscape**. *Social Justice Research*, *38*(3), 312-331. https://doi.org/10.1007/s11211-025-00460-6
The COVID-19 pandemic and the February 6, 2023 Earthquake in Kahramanmaraş, Türkiye have posed significant challenges to pre-service teacher education. The swift transition from face-to-face to remote teaching has led to social injustices, while students and pre-service teachers affected by the earthquake have had to adapt to new environments, including practicum schools. This case study, therefore, explores pre-service teachers' sense of injustices in the aftermath of these crises and the resolutions that they implement to address these challenges. Participants include six pre-service teachers attending their practicum in the aftermath of the earthquake. Data come from retrospective interviews, journals, and social justice-oriented lesson plans. The analysis, carried out through coding, identified themes such as pre-service teachers' perception of injustice, responsive teaching practices, and reflections on these practices in the post-disaster term. In findings, each theme underscores the relationship between social and educational injustices, and professional responsibility and agency, providing a comprehensive understanding of PSTs' roles in addressing injustices. PSTs reported a transition from viewing teaching merely as content delivery to recognising it as a dynamic interaction that addresses students' emotional and social needs. PSTs' responsive practices illustrate that SJTEP can serve as a tool for fostering awareness and advocacy for both social and educational injustices. Implications are shared to empower teacher education policies for promoting SJTEP in practicum.

Haddou, Y., Talbi, O., Ouared, A., & Chadli, A. (2025). **A learning assistance framework for supporting and analyzing student teams in project-based learning**. *Education and Information Technologies*, *30*(13), 18579-18620. https://doi.org/10.1007/s10639-025-13503-x
As Project-Based Learning (PjBL) becomes a cornerstone of modern education, effective support and analysis tools are crucial for enhancing collaborative learning experiences and achieving educational goals. However, challenges such as managing overload related to the rigor and demands of project-based activities (e.g., meetings, writing reports, deliverables), handling potential disruptions within teams, and maintaining team engagement often hinder the successful implementation of PjBL in higher education. This paper presents a learning assistance framework designed to support and analyze teams in PjBL. It identifies three key challenges: (i) managing overload while supporting teams; (ii) tracking the full range of interactions within student teams related to their digital learning traces and learning experiences; and (iii) perceiving and maintaining student team engagement to prevent disengagement. We analyze these challenges to derive requirements for supporting and analyzing teams in PjBL and propose a conceptual framework that addresses these needs. The ASTRA-PjBL framework is based on three seamlessly integrated components to effectively manage these challenges: Support, which provides a structured environment to support student teams; a Learning Experience Repository, which facilitates the reuse of learning experiences; and Teams Data Analytics, which uses Learning Analytics (LA) to gain a comprehensive view of team states and to map behavior. The assistance plugin for the Moodle community is fully

available. Experimental validation demonstrates the usefulness and effectiveness of our framework.

Hania, A., Waqas, M., & Chunyan, X. (2025). **Enhancing Teaching Competency in Higher Education: The Role of AI Efficacy, Social Media Use and Classroom Dynamics**. *European Journal of Education*, *60*(3), e70197. https://doi.org/10.1111/ejed.70197
The pursuit of enhanced teaching competency in higher education necessitates understanding multifaceted factors that influence effective teaching practices. This study investigated how AI efficacy, social media use and classroom dynamics enhance teaching competency among higher education faculty. Grounded in Bandura's Social Cognitive Theory, we analysed data from 304 university instructors using structural equation modelling. Results reveal that AI efficacy positively influences social media use, which significantly enhances teaching competency. While AI efficacy demonstrates no significant direct impact on teaching competency, its substantial indirect effect through social media use indicates complete mediation. Classroom dynamics, encompassing student engagement patterns, participatory learning environments and interactive teaching methods, emerge as a foundational element that strengthens both social media adoption and overall teaching effectiveness. The collaborative interaction between classroom dynamics and AI efficacy creates optimal conditions for technology-enhanced pedagogical practices. These findings highlight the interconnected roles of AI efficacy, social media engagement and classroom dynamics in fostering teaching excellence. The study offers valuable insights for educational institutions developing comprehensive faculty development programmes that integrate technological competency with pedagogical innovation in higher education settings.

Hazzan-Bishara, A., Kol, O., & Levy, S. (2025). **The factors affecting teachers' adoption of AI technologies: A unified model of external and internal determinants**. *Education and Information Technologies*, *30*(11), 15043-15069. https://doi.org/10.1007/s10639-025-13393-z
This study examines factors influencing teachers' intention to adopt Generative AI technologies in education by extending the Technology Acceptance Model (TAM). The proposed comprehensive model incorporates both external factors (exposure to AI information, information credibility, and institutional support) and internal factors (intrinsic motivation and self-efficacy). A survey of 400 teachers reveals that teachers' exposure to credible AI information positively influences perceptions of Generative AI usefulness, which ultimately impacts their intention to use AI. Importantly, institutional support has both direct and indirect effects on teachers' intention to use AI, with the indirect effect mediated by the internal factors of intrinsic motivation and self-efficacy. This research complements TAM theory by integrating psychological and contextual factors, offering a nuanced framework for understanding Generative AI adoption in educational settings. The findings suggest that for educational leaders and policymakers, developing strategies that allocate resources for infrastructure, technical support, and professional development—such as Generative AI training programs—will be crucial in driving Generative AI adoption among teachers. By addressing both external and internal determinants, this study provides a comprehensive perspective of the dynamics behind technology acceptance in the classroom.

Hill, L. B., Hill, R. L., Frey, R. F., & Buchanan, D. (2025). **Developing as Inclusive Instructors through High-Engagement Professional Development**. *Innovative Higher Education*, *50*(4), 1357-1380. https://doi.org/10.1007/s10755-025-09784-2
We examined the ways that faculty members developed as inclusive instructors as a result of participating in the Inclusive STEM Teaching Project (ISTP). The ISTP is a free, Massive Open Online Course designed to train STEM faculty members in inclusive teaching. Semi-structured interviews (n = 80) with course participants from multiple disciplines and institution types demonstrated increases in reflective capacity and awareness of inclusive teaching concepts and strategies, changes in mindsets and perspectives, validation of pre-existing beliefs, increases in self-efficacy, and the implementation of inclusive practices in and outside of the classroom. Results demonstrate a high degree of interconnectivity among empathy, self-efficacy, implementation, and ongoing self-awareness that point to an interactive and recursive understanding of inclusive teaching development. Results can be applied more generally in teaching and learning spaces and can be combined with similar attempts to embed inclusivity, diversity, and equity into programmatic and institutional ethos. Future research could build upon this work by increasing attention on the supports and barriers faculty members face as they attempt to implement inclusive practices.

Hoang, L. P., Le, P. A., Le, H. T., Nguyen, D. T., Phan, T. C., Le, H. T., … Tran-Duong, Q. H. (2025). **Evaluating educational assessment competence of pre-service teachers: extended standards in the context of digital classroom assessment transformation**. *Education and Information Technologies*, *30*(12), 16347-16374. https://doi.org/10.1007/s10639-025-13467-y
This study explores the transformation of teaching and assessment methods in the context of media applications, particularly the rise of E-learning and blended teaching driven by rapid ICT advancements. These changes necessitate updates in teachers' teaching and assessment literacies to align with modern educational trends. This adaptation is essential for broadening the criteria of teachers' educational assessment competencies, particularly in pre-service teacher training programs. A comprehensive review of published research (1990–2020) revealed a gap in standards specifically tailored for evaluating pre-service teachers' educational assessment competencies. Existing standards, designed for both pre-service and in-service teachers, fail to account for the lack of real-world experience among pre-service teachers, potentially omitting key assessment criteria. To address this, the study introduces an adaptive KPIE framework (Knowledge, Practice, ICT integration, and Ethics) for measuring pre-service teachers' educational assessment competencies. This framework underpins the development of adaptive assessment standards tailored for pre-service teachers. Rigorous testing of these standards demonstrated strong reliability (Cronbach's Alpha = 0.986, KMO = 0.980) and was applied to evaluate 314 pre-service teachers across two educational universities. Results highlighted significant practical insights into pre-service teachers' classroom assessment competencies. These findings offer a foundation for refining training programs, strategies, and plans to better equip pre-service teachers for educational innovation.

Hoang, N. H. (2025). **E-leadership in the AI era: Exploring Vietnamese EFL teachers' digital leadership development in AI integration**. *Education and Information Technologies*, *30*(12), 16895-16928. https://doi.org/10.1007/s10639-025-13451-6

The integration of artificial intelligence (AI) in language education necessitates new forms of digital leadership, yet research on how language teachers develop e-leadership competencies remains limited, particularly in non-Western contexts. This study investigates how Vietnamese EFL teachers develop and exercise e-leadership competencies in implementing AI tools. Using an exploratory sequential mixed-methods design, the study combined in-depth interviews with 17 EFL teachers and a survey of 211 teachers across Vietnamese universities. The research framework integrated e-Leadership Theory and the Technology Acceptance Model. Key findings reveal that successful e-leadership requires a balance of technical proficiency ($\beta = 0.31$, $p < 0.001$) and cultural sensitivity ($\beta = 0.28$, $p < 0.001$). Three primary dimensions of e-leadership competencies emerged: technological proficiency with guidance capability, pedagogical innovation in AI integration, and culturally responsive change management. The research also highlights critical ethical considerations in AI implementation, particularly regarding assessment transparency and decision-making processes. These findings inform the development of culturally sensitive professional development programs and provide a framework for understanding e-leadership development in non-Western educational settings.

Hu, L., Chen, Y., & Chen, L. (2025). **A study on the impact of diverse evaluation system on college students' sense of achievement in English learning: An empirical research based on the knowledge graphs of College English**. *Education and Information Technologies*, *30*(13), 17805-17834. https://doi.org/10.1007/s10639-025-13483-y
With the continuous development of higher education, the evaluation of college students' learning has received increasing attention.Understanding the impact of the multiple evaluation system on college students' sense of English learning acquisition is of great significance. It helps educators to better design teaching activities and evaluation methods.This study focuses on 90 freshmen enrolled in the course of College English. Using research tools and methods such as questionnaire, classroom observations, and online tests, the research is to explore the impact of diverse evaluation methods on students' sense of achievement. The findings show that there is a significantly positive correlation between students' learning behaviors, such as the degree of learning engagement and learning methods, and students' sense of knowledge acquisition. There is a significantly positive correlation between teachers' teaching behaviors such as teaching methods and teaching design, and students' sense of ability acquisition.There is a significantly positive correlation between the learning environment such as timely feedback on student' learning and assessment methods, and students' sense of emotional acquisition.Diversified assessment methods can enhance students' interest in learning, increase their level of engagement, improve their participation in the course, and enhance their sense of achievement. The authors suggest that it is necessary to utilize the learning situation data of the knowledge graph to conduct multi-dimensional and multi-level course evaluations for students, so as to improve students' sense of acquisition in terms of knowledge, abilities and emotions.

Hu, Y., Xu, Y., & Wu, B. (2025). **A dual-pathway model of teacher-AI collaboration based on the job demands-resources theory**. *Education and Information Technologies*, *30*(11), 15125-15146. https://doi.org/10.1007/s10639-025-13421-y
Artificial intelligence (AI) not only provides new opportunities for the high-quality development of education, but also brings multiple challenges such as psychological anxiety, workload, and role conflicts to teachers. In order to explore the complex

interaction mechanism between teachers and AI in the process of human-machine collaboration, this study draws on the job demands-resources (JD-R) model and proposes a dual-pathway model. SPSS-PROCESS Macro software was used to test the research hypotheses. This study found that: (1) AI had both negative and positive effects on teacher-AI collaboration (TAC). Perceived risk, through the partial mediating effect of AI anxiety, negatively influenced TAC. Technology acceptance and AI-TPACK had a positive influence on TAC through the mediation of human-machine compatibility. (2) The support of facilitating conditions buffered the positive association between perceived risk and AI anxiety. (3) Technology acceptance helped teachers cope with AI anxiety induced by perceived risk, and perceived risks, to some extent, promoted the improvement of teachers' human-machine compatibility brought about by technology acceptance. The present study reveals the double-edged sword effect of AI faced by teachers, providing strong support for the constructive interaction and deep integration between teachers and AI.

Israel, L. O., & Baguio, J. B. (2025). **Conversion Supervision Practices and Supportive Classroom Management of Public Elementary School Teachers**. *Asian Journal of Current Research*, *10*(3), 67-77. https://doi.org/10.56557/ajocr/2025/v10i39475
This study aimed to determine the significant relationship between conversion supervision practices and supportive classroom management among public elementary school teachers in Mati Northeast District, Division of City of Mati. A descriptive-correlational research design was employed, with a sample of 139 public elementary school teachers selected through universal sampling. Data were gathered through standardized questionnaires administered in the school setting. The data were analyzed using mean, Pearson product-moment correlation, and multiple linear regression analyses. The findings indicated that both conversion supervision practices—specifically in the domains of consideration, stimulation, motivation, and influence—and supportive classroom management—in terms of normative behavior, workplace behavior, values, and decision-making—were oftentimes manifested by the teachers. Correlation analysis revealed a significant positive relationship between conversion supervision practices and supportive classroom management. Furthermore, the various domains of conversion supervision practices significantly influenced the supportive classroom management of teachers. It is recommended that schools may implement capacity-building initiatives such as training programs and conferences organized by the Department of Education to enhance conversion supervision practices and foster effective classroom management. These efforts will support teacher competence, reinforce best educational practices, and promote improved learning environments for students.

Jiang, C., Chen, X., Yu, A., & Liang, G. (2025). **Integration of game evaluation methods into the design of human-computer interaction course test system**. *Education and Information Technologies*, *30*(11), 15027-15042. https://doi.org/10.1007/s10639-025-13423-w
Assignments and tests are the main forms of evaluation in the educational process, students usually lose interest in boring exercises during course learning. In spired of elements from human-computer battle game, a course test system is designed to encourage students to take tests more frequently and actively to achieve better learning effect, which combines the characteristics of human-computer interaction, player kill (PK) game and HL promotion (HLP). The system consists of three main modules: (1) human-computer PK battle to simulate the real competition, (2) HLP mechanism to

match the user's learning level, and (3) presetting humorous words to satisfy the simple human-computer interaction. By modeling and simulation conducted on this test system, it can confirm that students with various correct response rates and response speeds can achieve honors levels consistent with their learning levels. The rate of correct answers can be used to determine the honor level (HL), and increasing the speed of answering can also improve the HL to a certain extent. It has been found that adding the PK battle mode of honor rank promotion into the learning system can match the personality characteristics of contemporary college students and help students build self-regulated learning.

Johnson, B., & Mughal, R. (2025). **Towards a critical pedagogy of trans-inclusive education in UK secondary schools**. *International Journal of Inclusive Education*, *29*(11), 1937-1951. https://doi.org/10.1080/13603116.2024.2326612
School systems within the UK are embedded within cultures of normative gender narratives. Such cultures can create difficult environments for gender diverse young people which in turn contribute to poorer academic attainment and long-term health and wellbeing outcomes. In an attempt to understand how to foster better understanding within schools, we drew upon the lived experience of gender diverse young people. Using Interpretative Phenomenological Analysis (IPA), this research explored the experience of six transgender and non-binary young people who reflected on their experience of secondary education in the UK. Drawing on critical pedagogy as a theoretical framework, we found that: unsupportive school environments and relationships led to decreased mental health and feelings of Otherness; gender diversity was a contentious topic not found within curriculums; and teachers had the potential to create and foster positive experiences within a pedagogy of gender diverse affirmative partnership. To facilitate this, there is a need for institutional support allowing teachers to critically interrogate the structural embeddedness of cisgenderism in educational spaces, and within cultures of pathologised self-identified gender identities.

Kee, T., Kuys, B., & Zhang, J. (2025). **The architecture for synchronous hybrid peer learning using pedagogy-space-technology (PST) framework**. *Education and Information Technologies*, *30*(12), 16375-16405. https://doi.org/10.1007/s10639-025-13435-6
The paradigm shifts towards synchronous hybrid instruction in higher education, influenced in part by the impact of the post-COVID-19 pandemic and initiatives such as Collaborative Online International Learning (COIL), underscores the need for a comprehensive redesign of digital interactive learning environments. This transformation necessitates the integration of educational technologies and adaptable interior architecture to facilitate a wide range of instructional and learning pedagogies that foster peer learning. Through the utilization of the Pedagogy-Space-Technology (PST) Framework, this study aims to explore the challenges inherent in reconfiguring the "architecture" of synchronous hybrid learning (SHL) environments to promote technology-enhanced collaborative peer learning experiences. Data were gathered from academics at ten higher education institutions, collecting 134 survey responses and outcomes of utilizing a new patented technology of a SHL Console. By examining three key factors of pedagogy, space, and technology, this study investigates the challenges and opportunities associated with facilitating peer learning with new technology. The empirical findings underscore that the integration of interactive educational technology, innovation in pedagogical development, and institutional re-thinking of the architecture of the learning environment are pivotal to effectively promoting peer learning. By offering

some recommendations on the re-design of the SHL environment, educators and higher education institutions can create a more engaging, inclusive, and collaborative peer learning experience for students, ultimately promoting academic success and personal growth.

Keung, C., & Chan, A. (2025). **Turning conflicts into opportunities? Kindergarten teachers' perspectives on collaboration with parents of vulnerable children**. *International Journal of Educational Research*, *133*, 102681. https://doi.org/10.1016/j.ijer.2025.102681
Previous studies have highlighted the barriers to effective collaboration between parents and teachers, often presenting a narrow perspective on the conflicts that emerge in these interactions. This qualitative study investigates kindergarten teachers' perceptions of such conflicts during their collaboration with parents of vulnerable children as well as the strategies they employ to address issues. Semi-structured interviews were conducted with sixteen teachers from four kindergartens. In the interviews, the participating teachers shared critical incident cases related to conflicts in parent-teacher collaboration. The analysis revealed four themes, demonstrating how kindergarten teachers exercise professional agency and utilise responsive communication, empathic understanding, non-judgmental listening, and trust-building strategies to resolve conflicts with parents. Drawing from the data, we interpret that conflicts can provide teachers with an opportunity to strengthen their connections with parents and enhance collaborative relationships. While working with parents can be challenging—particularly in the face of disagreements—kindergarten teachers' agentic approaches can transform this obstacle into catalysts for effective parent-teacher collaboration.

Khamzina, K., Legrain, C., Kheroufi-Andriot, O., Desombre, C., Rossi, S., Cilia, F., … Brasselet, C. (2025). **Comparing attitudes towards inclusive education: a mixed methods study of French teachers and paraprofessionals**. *European Journal of Special Needs Education*, 1. https://doi.org/10.1080/08856257.2025.2544035
The successful implementation of inclusive education is influenced by various factors, among which individual attitudes towards inclusive education. While much of the existing literature has focused on teachers' attitudes, less attention has been given to the attitudes of various health and social professionals such as psychologists, specialist educators, nurses, speech therapists and other professionals working in medical-educational settings. This study seeks to examine and compare attitudes towards inclusive education among French teachers and paraprofessionals using both quantitative and qualitative research methods. Findings from an online survey and semi-structured interviews indicate significant differences between the groups, with paraprofessionals demonstrating more favourable attitudes towards the inclusion of students with special educational needs. These attitudinal differences are discussed in relation to the cognitive, behavioural and emotional components of the attitude construct, along with their implications for the successful implementation of inclusive education.

Kölemen, E. B., & Yıldırım, B. (2025). **A new era in early childhood education (ECE): Teachers' opinions on the application of artificial intelligence**. *Education and Information Technologies*, *30*(12), 17405-17446. https://doi.org/10.1007/s10639-025-13478-9
This study aimed to evaluate the role of AI in preschool from the perspective of preschool teachers. The research group consisted of 101 preschool teachers. The study group was selected according to the easily accessible case sampling method, one of the

purposeful sampling methods. The study was a phenomenology, which is a qualitative research design. Qualitative data were collected using a semi-structured interview form. Data were analyzed using inductive content analysis. As a result of the analyses, the participants stated they did not feel sufficient regarding AI literacy and competencies. The participants also emphasized that using AI in preschool was appropriate and would improve children's skills, such as AI literacy and computational thinking. Moreover, they stated that using AI in preschool would cause privacy and security concerns for different reasons, such as not protecting personal data, using children's pictures, and providing false and misleading information. The participants stated that they were worried about the implementation process of AI due to lack of content knowledge, lack of infrastructure, physical structure of the classroom, and lack of materials. In addition, participants emphasized that if the existing concerns were eliminated, AI could be easily integrated into the preschool period. In addition, it was determined that most participants had problems in modeling and drawing a model related to AI.

Lee, S. H., Zbacnik, A., Hodge, S. R., & Kim, K. G. (2025). **Perceptions of pre-service special education teachers in South Korea toward teaching physical education for students with disabilities**. *International Journal of Inclusive Education*, *29*(10), 1652-1668. https://doi.org/10.1080/13603116.2023.2288628
The purpose of the study was to examine the perceptions of pre-service special education teachers in South Korea towards teaching physical education to students with disabilities. The qualitative descriptive case study was used to examine the perceptions of five pre-service special education teacher candidates using in-depth semi-structured interviews, a review of the teacher education curriculum, and the researchers' field notes. The data were analyzed using constant comparative data analysis and exposed three themes, which were: (a) teaching students with disabilities in South Korea, (b) a lack of competency in teaching physical education, and (c) the challenges of teaching students with disabilities. In this study's results, pre-service special education teacher candidates showed a lack of competency in teaching physical education to students with disabilities. Nevertheless, teacher candidates realised the many benefits of students' participation in physical education classes. Therefore, it has been suggested that university faculty in teacher education programs should provide an opportunity for pre-service special education teachers to engage in practicum training and take classes to increase their content knowledge in teaching physical education.

Lee, T.-K., & Hung, A. C. Y. (2025). **Implementing differentiated instruction through lesson study: reflections from Taiwanese EFL teachers**. *International Journal of Educational Research*, *133*, 102720. https://doi.org/10.1016/j.ijer.2025.102720
This study examines how four EFL instructors at a Taiwanese university used lesson study (LS) to explore differentiated instruction (DI) in higher education. While DI is well established in K–12 settings, its implementation at the tertiary level remains limited due to structural, pedagogical, and cultural constraints. This research investigates how collaborative structures like LS can support instructors in developing and applying DI strategies. Using a qualitative design grounded in LS, the study followed seven iterative cycles of joint lesson planning, classroom observation, and post-lesson reflection. Data were collected through field notes and focus group interviews and analyzed using Interpretative Phenomenological Analysis (IPA). The four participating instructors, all with at least five years of EFL teaching experience, had limited prior experience with DI or structured peer collaboration. Findings highlight the value of LS in building shared

understanding, encouraging flexible grouping, integrating student choice, and supporting more responsive assessment practices. Teachers progressed from theoretical understandings of DI to more personalized approaches that accounted for student readiness, interests, and learning profiles. However, implementation was constrained by standardized curricula, test-oriented instruction, and concerns about fairness and workload. The study concludes that LS can serve as an effective professional development model for promoting differentiated teaching in higher education. It fosters sustained reflection, reduces professional isolation, and builds teacher confidence through structured peer interaction. Implications for policy and practice include the need for institutional support, dedicated collaboration time, and leadership structures that recognize and reward pedagogical innovation.

Lemon, N., O'Brien, S., Later, N., Britton, S., & Prendergast, J. (2025). **Pedagogy of Belonging: Cultivating wellbeing literacy in higher education**. *Higher Education*, *90*(1), 199-213. https://doi.org/10.1007/s10734-024-01317-8
Wellbeing literacy is the capability to set intentions and comprehend and compose wellbeing language. This is cultivated and embodied across contexts with the intention of maintaining or improving the wellbeing of oneself, others, or the world. In this paper, as co-authors we share the way we understand our wellbeing as educators in higher education, that is, through a Pedagogy of Belonging. Belonging is one of the domains to our wellbeing as academics and educators, as well as students in the studied higher education learning context. Pedagogy of Belonging helps us develop our wellbeing literacy individually and collectively. Through an authentic inquiry framed by hermeneutic phenomenology, we highlight four vignettes, showcasing what this looks like across different disciplines located in one school of an Australian university. In these vignettes, we look at what it means to engage with diverse areas of wellbeing that enhance our collective capacity to flourish. We have paused, listening deeply to our academic and wellbeing needs, addressing these together to develop a shared language that supports our wellbeing. We describe the valuing of meaning, curiosity associated with relationship building, multi-modal ways of being with each other, passion, and positive emotions that promote academic wellbeing capabilities that, in turn, support, develop, and sustain a wellbeing literacy. In demonstrating how a wellbeing literacy can be developed, maintained, and/or improved, we open new avenues of investigation that interrupt the dehumanising of higher education learning contexts.

Lepage, A., & Roy, N. (2025). **Étude de l'adoption de l'intelligence artificielle par des personnes enseignantes du postsecondaire au Québec en fonction de cinq types d'usages**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-13
Cette étude vise à expliquer l'adoption de cinq types d'usages de l'IA par les personnes enseignantes du postsecondaire : prédiction de la réussite, rétroaction, détection du plagiat, création de matériel et évaluation. Des personnes enseignantes du postsecondaire (n = 127) se sont prononcées sur les facteurs d'attitude, de performance perçue, de facilité d'utilisation et d'anxiété, de même que sur des facteurs de littératie de l'IA (technique, pédagogique et éthique). Des modèles d'équations structurelles ont été estimés pour expliquer l'intention d'utilisation. Il ressort des principaux résultats que des connaissances techniques sur l'IA sont associées à des attentes de performance plus faibles.

Liat, E., & Hayak, M. (2025). **The integration of digital games into teaching and learning—A unique constructivist framework**. *British Journal of Educational Technology*, *56*(5), 2202-2222. https://doi.org/10.1111/bjet.13555
In today's era, the ability to create and utilize digital games in the classroom is of great importance, for both teachers and students. Yet traditional teaching methods often lack the implementation of games in general, and of digital games in particular. This study presents a unique constructivist framework for creating and integrating digital-game generators in the classroom, following four consecutive year-long courses for preservice teachers at a college in Israel. Using design-based research, year-to-year improvements (iterations) to the course were introduced, achieved through analysis of in-class discussions, semi-structured interviews, participants' reflective diaries and the generated games. The participants were required to apply the constructivist framework to a study unit in their field of expertise, during their practical school-teaching experience. The findings in this study are based on the participants' teaching experience in secondary schools in three core subjects: English as a second language, mathematics and history. The developed consecutive framework comprises three core elements: the game, the pedagogical and didactic core, and the knowledge—all of which are important when integrating digital-game generators into the classroom. The course and framework addressed in this study could be applied in additional teacher-training programs, to increase digital-game generation and related skills in classrooms. Practitioner notes What is already known about this topic Creating and implementing digital games in the classroom has gained momentum in recent years. Early exposure of preservice teachers to digital games during the teaching training phase may increase their use in the educational field. The developing and integration of digital games in the classroom, based on the constructivist approach, allows students to create games using existing game generators, while expressing their insights and knowledge in a personal and creative manner. What this paper adds Introduces an innovative framework integrating educational game generation into teacher training, addressing key pedagogical and content knowledge components. Demonstrates the successful application of this framework across multiple disciplines (English, mathematics and history) in secondary education. Presents a longitudinal study showcasing the iterative development and refinement of a game-based learning approach in preservice teacher education. Provides evidence-based insights into the effectiveness of incorporating digital game creation as a constructivist learning tool in teacher preparation programs. Implications for practice and/or policy The constructivist framework helps expose preservice teachers—and in early stages of their teacher training—to experimenting with different types of digital games and different methods for integrating them into their teaching. Such integration of digital games into their teaching may promote meaningful learning, with an emphasis on the development of important 21st-century skills. In light of the proposed model, the study recommends promoting the topic of digital games in teacher training, for the benefit of the preservice teachers' future students.

Libucan, J. C., & Baguio, J. B. (2025). **Self-recognition Learning in Relation to the Instructive Development of Teachers in Public Elementary Schools**. *Asian Journal of Current Research*, *10*(3), 49-59. https://doi.org/10.56557/ajocr/2025/v10i39466
This study aimed to determine the significant relationship between self-recognition learning and instructive development among teachers in public elementary schools in Malalag District, Division of Davao del Sur. A descriptive-correlational research design was employed, with a sample of 181 public elementary school teachers in Malalag

District, Division of Davao del Sur. Data were gathered through standardized questionnaires administered via face-to-face surveys. The data were analyzed using mean, standard deviation (SD), Pearson product-moment correlation, and multiple linear regression analyses. The findings indicated that both self-recognition learning and instructive development were rated as very high. Correlation analysis revealed a significant positive relationship between these variables. Additionally, the study found that various domains of self-recognition learning, such as recognition and management of emotions, care for others, establishment of positive goals, responsible decision-making, and handling personal situations, significantly influenced teachers' intellectual, self-recognition, social, ethical, and spiritual development. It is recommended that schools may implement programs that enhance both self-recognition learning and instructive development by integrating social-emotional learning (SEL), student mentorship programs, and reflective learning practices into the curriculum. Strengthening these aspects will support students' academic success, emotional well-being, and overall character formation.

Listiaji, P., & Molnár, G. (2025). **Integrating computational thinking into teacher education: A systematic literature review**. *International Journal of Educational Research*, *133*, 102682. https://doi.org/10.1016/j.ijer.2025.102682
Integrating computational thinking (CT) into teacher education is essential for preparing future teachers in the 21st century. This systematic literature review selected 43 journal articles (2014–2024) using the PRISMA standard to examine the subject area, CT model, intervention, tools, and assessments. The results show that the literature (1) focuses on STEM subjects, with most researchers using (2) the CT model, including decomposition, pattern recognition, abstraction and algorithm thinking, (3) plugged activity, (4) visual programming, and (5) questionnaires and achievement tests as assessment tools. Further potential research includes studies on non-STEM subjects, CT model testing, unplugged interventions, non-programming tools, and assessment validity and reliability. This study provides important and evidence-based insights for researchers in teacher education and development so that they can design more effective teaching strategies in integrating CT into in-service and pre-service teacher education.

Liu, Q. (2025). **The influence of culture on play-based pedagogy implementation in Northeast China's kindergartens**. *International Journal of Educational Research*, *133*, 102718. https://doi.org/10.1016/j.ijer.2025.102718
This qualitative research article explores how play in Early Childhood Education (ECE) in Northeast China's kindergartens is influenced by specific cultural norms (Confucianism, Communism and Western ideology). It begins by theoretically positioning play-based pedagogy from both Western and Chinese perspectives, considering play types, child agency, and adult proximity and roles. To empirically discover if and how these cultural factors influence play-based pedagogy, the study conducted semi-structured interviews with 11 teachers from two public kindergartens in Northeast China. The findings illustrate that teachers' understanding of play types and how they plan play activities are impacted by these cultural influences. For instance, teachers tend to adopt an authoritarian role in the classroom, interrupting children's play to ensure academic results and collective outcomes. Furthermore, likely due to this teacher-centric pedagogy, children's opportunities to engage in child-led play are limited, impacting their agency in 'free play' situations. At the same time, the article acknowledges the positive impact of collectivism on children's self-regulation, while questioning whether children in

collective societies require independent choice to have full agency. Therefore, existing frameworks surrounding cultural impacts and child agency are reconceptualised for this specific context, calling for culturally responsive changes to policy and practice. This could take the form of a holistic, localised play-based pedagogy framework created for the Northeast Chinese context which incorporates the benefits of Western ideas of play in a culturally appropriate manner, as well as Continuing Professional Development to support teachers with practice.

Liu, W. C., Kong, L. C., Wang, C. K. J., Kee, Y. H., Ng, B., Lam, K., & Reeve, J. (2025). **A qualitative examination into the school-related factors affecting teachers' motivating styles**. *Asia Pacific Education Review*, *26*(3), 795-810. https://doi.org/10.1007/s12564-025-10047-0

The Self-Determination Theory posits that an autonomy-supportive motivating style can benefit students in numerous educationally important ways. The paradox and educational concern is that although teachers are cognizant that students can reap numerous benefits when they support their students' autonomy, many of them are nevertheless unable to do so. This can be explained by the implicit and explicit forces imposed on them from their external and internal environments. This paper investigated the school-related factors that affect teachers' adoption and employment of autonomy-supportive motivating style. To achieve the objective, we interviewed 59 mathematics and/or science teachers (Myears of teaching = 10.8, 62.71% female) from 17 secondary schools in Singapore. We identified several school-related factors that could affect the teachers' motivating styles, namely, "time pressures", "support from school leaders", "support from colleagues" and the "time of the year (timing)". Because autonomy-support is important for students' motivation and learning, a better understanding of the school-related factors that affect the teachers' motivating style would be helpful in creating a context that allows the teachers to be more supportive of their students' autonomy.

Liu, Y. (2025). **Multi-stakeholder collaboration in an online professional learning community: Co-constructing professional learning**. *International Journal of Educational Research*, *133*, 102668. https://doi.org/10.1016/j.ijer.2025.102668

This study explores the co-construction of teacher professional learning (PL) within an online professional learning community (PLC) supported by multi-stakeholder collaboration. Using a qualitative case study approach, it examines how teachers, policymakers, and academics shape PL through six months of workshop observations and interviews. Findings show that PL evolves from a top-down structure to shared leadership and teacher-driven adaptations. Initially marked by hierarchical dynamics, later phases fostered flexibility and open dialogue, positioning teachers as key agents of change. The study highlights the need for adaptive leadership, flexible power structures, and organic stakeholder collaboration. This research contributes to understanding dynamic PL co-construction in online multi-stakeholder contexts, offering practical insights for school-university partnerships, research-practice integration and PLC development.

Liu, Z., Zhang, X., Liu, W., Chen, W., Li, Y., & Zhou, Y. (2025). **Application and optimization of digital situated teaching in university finance courses from a constructivist perspective: An analysis based on machine learning algorithms**. *Education and Information Technologies*, *30*(13), 18059-18088. https://doi.org/10.1007/s10639-025-13496-7

The rapid advancement of digital technologies is prompting a necessary shift in traditional educational models, particularly in finance education. This study introduces the « Multi-Dimensional Situated Learning Model » (MD-SLM), which is rooted in constructivist theory and aims to enhance teaching strategies in university finance courses. The MD-SLM incorporates digital tools like simulation software and online learning platforms to create a dynamic and authentic learning environment that fosters active student engagement and the development of practical skills. The model is designed with a tiered structure of situational tasks—categorized as foundational, extended, and integrative—paired with a comprehensive teacher support system that helps educators transition from traditional teaching roles to facilitators of learning. To assess the model's effectiveness, machine learning algorithms, such as cluster analysis, decision tree analysis, and Gradient Boosting Machine (GBM), were used on a dataset of 514 students over three years. The results demonstrated significant improvements in student learning behaviors and outcomes. The study's findings highlight the MD-SLM's potential to revolutionize digital finance education by aligning with constructivist principles and providing customized learning experiences. The research concludes with recommendations for applying this model more broadly across various educational contexts, aiming to contribute to the ongoing digital transformation in higher education.

Lize, V., Fanny, B., Viktor, D. M., Delphine, F., Laure, J., Ann, M., … Evelien, O. (2025). **A Game Plan to Support First-Year Students in Higher Education: The Case Study of a Gamified Orientation Day**. *European Journal of Education*, *60*(3), e70165. https://doi.org/10.1111/ejed.70165

Engaging first-year students from the first moment of arrival is crucial to support their transition to higher education and facilitate their learning experiences and learning outcomes. Orientation activities offer first-year students important transitional support during their first period at higher education. As students sometimes consider orientation activities as tedious, gamification might make participation more enjoyable while stimulating motivation and information processing. This case study presents a gamified orientation day based on educational theory. Building on eight design principles and their educational rationale, the design and operationalisation of the orientation day is explained. Qualitative survey data were collected from 1326 students. Thematic analysis revealed important strengths. Students perceived the orientation day as a pleasant and informative learning experience, appreciating the active engagement and peer collaboration. This study provides evidence-based orientation practises, aiming to inspire other institutions that seek effective strategies to support first-year students by improving their transition and orientation experiences.

Loua, S. (2025). **L'éducation en situation de crise au Mali : la résilience des enseignants de deux communes de Gao**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146vv

Cet article sur l'éducation en temps de crise au Mali identifie les difficultés rencontrées par les acteurs de l'école durant la crise sécuritaire dans la région de Gao et les stratégies de résilience qu'ils ont pu mettre en œuvre pour la continuité des activités pédagogiques. L'entretien semi-directif a été utilisé comme principale technique d'enquête. Les résultats montrent que les acteurs de l'école de Bourem et d'Ansongo de l'académie d'enseignement (AE) de Gao, en pleine crise sécuritaire, ont fait face à des difficultés de diverses natures. Malgré les contraintes, ils ont pu développer des stratégies qui ont permis aux enfants, tant bien que mal, d'aller à l'école.

Loustalot, A. (2025). **D'éduquée à éducatrice : une dimension pédagogique de l'autonomisation politique de la « jeunesse des chantiers » (de la Libération au milieu des années 1970)**. *Tréma*, (63). https://doi.org/10.4000/13r57
Sur un chantier, les volontaires participent à une action de service auprès d'une collectivité donnée. Acteurs sur les chantiers, les jeunes n'en restent pas moins des « objets d'éducation » aux yeux des dirigeants fondateurs. Refusant d'être reléguées à un statut d'adulte en devenir, des générations successives de jeunes engagent un processus d'autonomisation, interrogeant tout autant leur place de sujet politique au sein des organisations que celle d'« éduqués » sur les chantiers. Ce processus est étudié ici à partir de trois associations de chantiers internationaux de jeunes (Compagnons bâtisseurs, Concordia, Jeunesse et Reconstruction) de leur création après la Libération au milieu des années 1970.

Lubbe, A., Marais, E., & Kruger, D. (2025). **Cultivating independent thinkers: The triad of artificial intelligence, Bloom's taxonomy and critical thinking in assessment pedagogy**. *Education and Information Technologies*, *30*(12), 17589-17622. https://doi.org/10.1007/s10639-025-13476-x
Amalgamating generative artificial intelligence (Gen AI), Bloom's taxonomy and critical thinking present a promising avenue to revolutionize assessment pedagogy and foster higher-order cognitive skills needed for learning autonomy in the domain of self-directed learning. Gen AI, a subset of artificial intelligence (AI), has emerged as a frontrunner in creative tasks, revolutionizing various domains such as art, music, writing and design and showcasing its ability to generate original content across various domains, including education. Incorporating social, cultural, economic and pedagogical dimensions, AI in education encompasses the incorporation of AI technologies like intelligent tutoring systems, chatbots, robots, learning analytics dashboards, adaptive learning systems and automated assessment to bolster and elevate the educational process. The significance of the impact on the creativity component of Krathwohl's revised Bloom's taxonomy arises from the utilization of Gen AI in creative tasks, which prompts concerns regarding the authenticity and originality of AI-generated content. This conceptual research study seeks to investigate the affordances of this amalgamation and aims to reframe the higher cognitive levels of Bloom's taxonomy to enhance critical thinking and self-directed learning among students. This study grounds the reader in the existing literature and sets a course for where research in this field should be heading, thus adding value, rather than only providing an overview of the literature. The overall aim of this research was to explore the affordances of the amalgamation of AI, Bloom's taxonomy and critical thinking to support assessment pedagogy for self-directed learning. This paper identifies the gap in the current literature about reconceptualizing assessment pedagogy for developing higher-order thinking skills in a Gen AI higher education landscape. This paper presents a case of revisiting Bloom's taxonomy, advocating the importance of AI fluency and assessment literacy for the development of critical thinking skills and self-directed learning.

Luik, P., & Požogina, K. (2025). **Unleashing Digital Transformation: How a Professional Development Program Can Lead to Change**. *European Journal of Education*, *60*(3), e70191. https://doi.org/10.1111/ejed.70191
Teachers' continuous professional development in the digital technology field is crucial, and different professional development programs are composed to meet this need. This

paper gives an overview of one such program, named "Digital Accelerator", created in Estonia, and assesses whether it is effective in promoting teachers' use of digital technology and their beliefs towards it. A total of 59 participating teachers filled in pre- and post-questionnaires, and for data analysis, non-parametric tests were used. The results revealed that the use of digital technology in teaching and learning activities increased, and participating in educational technology mentoring was the most influential program activity. Also, it was evident that perceived ease of use and general attitudes towards digital technology had increased significantly. However, based on the results, we could conclude that giving the participating teachers in training too much power to choose the content is not the most useful approach.

Luo, M., Hu, X., & Zhong, C. (2025). **The collaboration of AI and teacher in feedback provision and its impact on EFL learner's argumentative writing**. *Education and Information Technologies*, *30*(12), 17695-17715. https://doi.org/10.1007/s10639-025-13488-7

With the rapid development of artificial intelligence (AI), a new educational model where AI and teachers work together to improve learning outcomes has emerged. Although previous research has focused on comparing the effects of AI and teacher feedback, the division of labor between them has received little attention. Focusing on enhancing learners' English argumentative writing, this paper examines the collaboration of AI and teacher in feedback provision and its impact on learners' writing. Twenty-eight tenth-grade students participated in the study, using feedback from both their teachers and the AI tool, DeepL Write, to revise essays. The study compared the effects of AI-only and teacher + AI hybrid feedback using Coh-Metrix to analyze the writing quality across three drafts: the original (draft 1), the AI-assisted revision (draft 2), and the teacher-assisted revision on draft 2 (draft 3). The results revealed that the AI-only feedback was effective in lexical and grammatical aspects but had weaknesses in improving content selection, coherence and cohesion, which could be mitigated through the integrated use of teacher and AI feedback. Based on the findings, we propose a partially automated hybrid approach that allows AI writing tool to execute feedback provision at lower levels, while teachers focus on offering insights at higher levels of writing. The findings of this research will contribute to a better understanding of the mechanism of teacher and AI cooperation in feedback provision. Future research needs to explore students' learning autonomy and assess the long-term impact of AI and teacher feedback integration in writing development.

Maas, M.-C. S. (2025). ***L'expertise enseignante en actes. Analyse des configurations d'activité collective permettant d'engager et de maintenir les élèves au travail en classe de collège*** (Phdthesis, Ecole normale supérieure de lyon - ENS LYON). Consulté à l'adresse https://theses.hal.science/tel-05178550

Cette thèse s'intéresse à l'expertise des enseignants en actes dans des classes de collège. Elle porte sur les configurations d'activité collective permettant, par l'ordre qu'elles génèrent, d'engager et de maintenir les élèves au travail. Elle vise la compréhension de l'activité d'enseignants experts dans le contexte de la classe dans une approche enactive et selon une théorie de l'anthropologie cognitive située (Theureau, 2006).Nous défendons la thèse que l'activité de l'enseignant expert permet de mettre et de maintenir les élèves au travail, en garantissant l'ordre propice au travail de la classe et sans recourir à des conduites de contrôle. Cette expertise enseignante se manifeste en actes dans le quotidien de la classe. Elle concerne les modalités d'action

des enseignants et les gestes qu'ils convoquent dans une vision plus large qu'est la configuration d'activité collective. Cette expertise concerne également l'appréhension de chaque élève dans sa globalité et dans le contexte variable, instable, imprévisible et situé de la classe. Nous montrons que l'expertise enseignante permet de faire émerger des configurations d'activité collective qui structurent l'activité des élèves et qui sont à leur tour structurées par l'activité de l'enseignant et des élèves. Nous recensons ainsi huit configurations d'activité collective articulées les unes par rapport aux autres et qui, par l'ordre qu'elles génèrent, favorisent : 1) la mise au travail de la classe, d'un groupe ou d'un élève, 2) le maintien dans le travail de la classe, d'un groupe ou d'un élève, 3) la remise au travail d'un élève qui, par son activité, génère des perturbations pour la classe.Cette recherche, parce qu'elle met au jour des points d'articulation déterminants au sein des configurations d'activité collective, comme l'adressage, en particulier le double adressage, ou l'occupation spatio-temporelle de l'espace en lien avec des préoccupations typiques et avec l'activité individuelle-sociale de l'enseignant et des élèves, permet de dépasser le caractère invisible de ces configurations. Elle peut être utile en formation initiale et continue des enseignants, en se donnant comme objectif de repérer dans l'activité enseignante les formes d'organisation dépassant les seuls gestes professionnels ou modalités de travail.

Magadza & Mampane. (2025). **Experiences of Adult Educators in Selecting Appropriate Teaching Methods in Engineering Courses at TVET Colleges in Mpumalanga Province, South Africa**. *Community College Journal of Research and Practice*, *49*(8), 545-556. https://doi.org/10.1080/10668926.2024.2330070
This study's sought to identify and fix problems with teaching strategies used in engineering courses at a TVET college in South Africa's Mpumalanga area. A Phenomenological, explorative, and descriptive research approach was used to capture the experiences of educators in choosing effective teaching approaches. Convenience sampling was employed to select 10 educators who participated in two Focus Group Discussions in an endeavor to collect qualitative data. These discussions were conducted through the lenses of Albert Bandura's social learning theory. Two audio recorders were used to capture the debates, thereafter verbatim transcribed. A computerized software called NVivo was used to do content analysis and theme analysis on the gathered data into manageable themes and sub-themes. Subsequently, the findings revealed the following five themes: preferred teaching methods, the effectiveness of teaching methods, the relationship between teaching methods and pass rate, assessing teaching and learning outcomes, and factors influencing adult learners' performance: however, by the scope of this article only three were discussed in the forthcoming paragraphs. These themes demonstrated that some engineering educators struggle to choose the best teaching strategies which meet industrial skills requirement. Thus, the authors advise industry and TVET colleges to work together so that educators can teach adults the essential engineering skills.

Marangio, K., Cooper, R., Gleeson, J., Jenkins, L., & Round, P. (2025). **Creating effective co-design processes for supporting pre-service teachers on school placement as part of a university-school partnership**. *International Journal of Educational Research*, *133*, 102734. https://doi.org/10.1016/j.ijer.2025.102734
Quality relationships and partnerships between different stakeholders are a central part of the development of pre-service teachers (PSTs) in initial teacher education (ITE). This paper presents findings from a larger research project examining the effectiveness of the

co-design processes with partnership schools to develop comprehensive and contextualised strategies to enhance PSTs' placement experiences in these schools. Framed by the United Nations' Sustainable Development Goal 4.C, to substantially increase the supply of qualified teachers, this study focuses on school leaders to address the research question: What are the emerging elements of an effective co-design process for supporting PSTs during school placements as part of a university-school partnership? Data were collected through interviews, group sessions and discussions with school leaders involved in the co-design process within a cluster of schools. Participants provided valuable insights into the advantages and challenges of co-designing strategies for PSTs. The findings identified key opportunities for creating a « third space, » where university and school knowledge intersect to foster productive spaces for collaboration and innovation: (1) shared knowledge building; (2) required mindset changes; and (3) context-oriented pre-placement preparation for PSTs. These productive spaces allow for the integration of diverse perspectives, preparing PSTs for rich placement experiences and ongoing growth and development. They were found to play a critical role in preparing PSTs to succeed in dynamic, diverse, and rapidly changing school environments. These findings contribute to broader discussions about how ITE programs can leverage third-space frameworks to better prepare educators for the complexities of contemporary classrooms.

Maras, K., Kriss, K., Cumming, T. M., & Hoenig, J. F. (2025). **Engaging in a community of practice in visual arts: A systematic literature review**. *International Journal of Educational Research*, *133*, 102752. https://doi.org/10.1016/j.ijer.2025.102752
This systematic literature review explored the potential of collaborative art investigations of digital artworks in schools to engage disengaged students and foster a sense of connectedness and belonging within a community of practice (CoP). The review also focused on the barriers and enablers of effective CoPs in digital creative practice and the effects on students' outcomes. The review comprised a systematic search of peer-reviewed journals in ProQuest Education, ProQuest Design and the Arts, Taylor and Francis, ERIC, and Arts and Architecture Complete databases between 2012 and 2022. PRISMA guidelines were used to locate and select 13 articles that met the inclusion criteria. A social realist perspective was used as a lens to guide the analysis of the review. Results indicated that collaborative art investigations in digital artmaking including animation offer valuable opportunities for enhancing student engagem

Mariette, M. (2025). **La conférence gesticulée : l'écho de subjectivations subversives ?** *Tréma*, (63). https://doi.org/10.4000/13r58
Nous souhaitons problématiser par le prisme foucaldien les particularités d'une pratique d'éducation populaire contemporaine qu'est la conférence gesticulée, et plus précisément l'impact éthique et politique que le stage de réalisation à la conférence gesticulée peut avoir sur les stagiaires. Caractérisée comme une prise de parole politique qui mêle récit de vie et analyse politique, la conférence gesticulée nous intéresse par son agencement discursif très particulier. En tant que discours sur soi-même, elle subvertit les cadres habituellement psychologisants du récit de soi en transformant l'anecdote personnelle en un moyen de rendre visible la présence de technologies de gouvernement dans les espaces les plus intimes. Nous proposons d'interroger philosophiquement certains ressorts discursifs que les formations à la conférence gesticulée organisent afin de rendre visible de possibles effets subversifs sur l'éthique des participants.

Mariyam B., H., & Karthika, V. K. (2025). **AI-enabled networked learning: A posthuman connectivist approach in an English for specific purposes classroom**. *Education and Information Technologies*, *30*(13), 18181-18211. https://doi.org/10.1007/s10639-025-13497-6
This study investigates the efficacy of artificial intelligence in facilitating networked learning that aids educators in creating inclusive and academically responsible learning environments in Indian English for Specific Purposes (ESP) classrooms. Designed as a qualitative case study, the intervention involves twenty participants from an engineering institute in India, who engaged with AI and chatbots in pairs to learn and build on their content knowledge on sustainable practices in engineering. The theoretical foundation for the study is grounded in Vygotsky's Zone of Proximal Development (ZPD) model and the theory of Connectivism, both of which were utilised for an in-depth data analysis. This exploration posits that the process of learning involves connecting various information sources and the ability to make connections between and across discourses, concepts, fields and experiences. Therefore, the non-linearity in learning involving human, non-human and technological resources is analysed through the connectivism theory (Siemens, 2005a, b & Downes, 2005a, b). The findings of the study discuss the pedagogical implications of incorporating AI and chatbots among tertiary-level learners and examine the ethical and social consequences of accommodating them in the learning assemblage. The results of the study will also enable educators to formulate strategies to include AI in teaching and learning methods through the affordances of connectivism.

Maryani, I., Karimi, A., & Fathi, K. (2025). **Museums as a Valuable Platform for Teaching History: A Scientometric Review**. *European Journal of Education*, *60*(3), e70146. https://doi.org/10.1111/ejed.70146
This research aims to analyse research trends on the theme of teaching about cultural heritage in museums from the aspects of publications, citations, profiled authors, influential journals, authors' keywords co-occurrence and co-authors visualisation networks. This is a scientometric study in the field of teaching about cultural heritage museums. This study provides a systematic and quantitative, data-based approach. A total of 301 publications from journal articles and conference proceedings were taken from the Scopus database and analysed in terms of the number of publications per year, citation overview, research productivity, keyword accuracy and co-authorship. R-package, VOSviewer and Excel software were used to analyse and visualise research trends. This research contributes to the availability of important information about research publication trends in museums and history teaching. The productivity of publication has increased in the last decade. The most productive country is Spain, followed by Turkey. The most relevant word is e-learning. The themes with the most potential to be developed in future research are digital libraries, information technology, semantics, archaeology and educational development. Collaboration between authors is still quite low, so these themes provide great opportunities for researchers in the field of history teaching to collaborate.

Matura, M. (2025). **Přírodní škola Secondary School: a "nature school". A case study**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w6
A significant part of the work at Přírodní škola Secondary School (Prague, Czech Republic) takes place out of the classroom, through interdisciplinary and exploratory

projects, artwork, and voluntary activities. Pupils are encouraged to use their skills and abilities not only for their own benefit, but in service of others. They are also required to present their views and opinions publicly, through which they learn to lead discussions and become used to public performance. The school has a relatively strict policy regarding the use of smart devices during school hours, and places a strong emphasis on the mental wellbeing of all participants. While these principles contribute meaningfully to addressing the challenges of the Anthropocene, the school's demanding curriculum and intensive schedule make it difficult to transfer some of its practices to other contexts.

Mavrou, K., Symeonidou, S., & Tsakiri, M. (2025). **Once inclusive always inclusive (?): experiences of Cypriot teachers and parents of children with disabilities on the use of technology and collaboration before and during the Covid-19 pandemic**. *International Journal of Inclusive Education*, *29*(11), 1970-1986. https://doi.org/10.1080/13603116.2024.2326615
In this paper teachers and parents of children with disabilities in primary education share their perspectives on instructional practices that support inclusive education. The paper explores participants' views on their own teaching practices before the Covid-19 pandemic in comparison to what they employed during the transition to emergency remote online education. The study involved 17 mainstream and special teachers from public schools in Cyprus, as well as 10 parents of children with disabilities, including all children with an official assessment of children with disabilities and special educational needs, attending primary mainstream schools. A thematic qualitative analysis was used to identify the type of pre-existing practices in the design and delivery of the learning process, including the use of technology, and how these were adapted during remote education. The findings highlight the importance of accessible learning materials, mainstream and assistive technology, communication, collaboration and co-teaching. The discussion emphasises the significance of readiness in terms of resources, competencies and relationships for inclusive education during emergency situations. In conclusion, being prepared to use technology for inclusion and to collaborate with colleagues and families is crucial in being inclusive even during challenging times.

Mayer, R. E. (2025). **How Instructional Features Affect Learning Processes Leading to Learning Outcomes**. *Educational Psychology Review*, *37*(3), 74. https://doi.org/10.1007/s10648-025-10058-8
This paper is a commentary on Eitel, Krebs, and Schöne (2025), examining how the FoRe-Squares model of technology-augmented learning shares commonalities with and offers extensions of the Cognitive Theory of Multimedia Learning.

Maymay, M. J. V., & Baguio, J. B. (2025). **Instructional Leadership Skills and Adept Progress of Teachers in Public Elementary Schools**. *Asian Journal of Education and Social Studies*, *51*, 179-189. https://doi.org/10.9734/ajess/2025/v51i72112
The purpose of this study was to determine the relationship between instructional leadership skills and the adept progress of teachers in public elementary schools within the Kapalong Langilan District, Division of Davao del Norte. A total of 148 teachers participated in the study. The descriptive-correlational research design was employed, allowing the observation and analysis of variables in their natural setting without the introduction of experimental manipulation. The descriptive component focused on identifying the current levels of instructional leadership and teacher progress, while the correlational aspect examined the relationship between the two. Based on the findings,

it was concluded that both the level of instructional leadership skills and the level of adept progress among teachers were high. Furthermore, a statistically significant relationship was found between instructional leadership skills and the adept progress of teachers. Therefore,the null

Mazo, A. M. M., & Baguio, J. B. (2025). **Traditional Classroom Learning in Relation to Structured Attractiveness of Teachers in Public Elementary Schools**. *Asian Journal of Education and Social Studies*, *51*(6), 1341-1351. https://doi.org/10.9734/ajess/2025/v51i62079
This study determined and described traditional classroom learning in relation to the structured attractiveness of teachers in public elementary schools in Manay District, Division of Davao Oriental. This study used the non-experimental quantitative research design utilizing the correlational method. The respondents of this study were composed of 133 teachers in public elementary school using the censussampling. The data analysis utilized the mean, pearson r and regression analysis. The findings disclosed that the traditional classroom learning of teachers in terms of relational, dialectical, adaptability, ethnicity and social status were high and manifested oftentimes by the teachers (M=3.37). Moreover, structured attractiveness of teachers in terms of welfare, individual appointment and selecting was high and manifested oftentimes (M=3.91). It was found that there was a significant relationship between traditional classroom learning and the structured attractiveness of teachers (r-value=0.862; p-value=0.000). It revealed further that the domains traditional classroom learning have a significant influence on the structured attractiveness of teachers in public elementary schools (R=0.890; R^2=0.792; F=90.12; p-value=0.000). Based on the findings, public school teachers should participate in conferences and training programs organized by the Department of Education (DepEd) to support their professional growth. These opportunities can enhance teachers' skills and build their capacity, providing them with valuable tools to improve their instructional practices. This will benefit learners by fostering a stronger educational foundation and promoting effective academic practices.

Meirmanova, N. (2025). **Analyse comparative entre la génération automatique de questionnaires à choix multiples par ChatGPT et le corps enseignant pour l'évaluation de l'apprentissage**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-03
Cette étude, menée auprès de personnes apprenantes de l'Université, examine l'intégration de ChatGPT-4 dans la création de questionnaires à choix multiples (QCM). Nous comparons les QCM générés par l'outil d'intelligence artificielle (IA) à ceux conçus par des enseignantes et nous analysons la qualité des distracteurs ainsi que les indices de difficulté. L'étude révèle que les QCM générés par l'IA obtiennent des taux de réussite élevés, mais présentent des distracteurs moins efficaces, limitant leur capacité à évaluer des compétences de réflexion analytique. Cette recherche souligne l'importance de l'intervention humaine pour garantir des QCM de qualité, tout en reconnaissant le potentiel de l'IA comme outil complémentaire.

Mendoza Aviña, S., & Delgado Bernal, D. (2025). **Exploring radical feminista oral history methodology: implications for educational research and praxis**. *International Journal of Qualitative Studies in Education*, *38*(8), 1149-1167. https://doi.org/10.1080/09518398.2025.2502063

As two Chicana scholar-activists, we recognize the common approach to oral history research is often technical and pragmatic and that published teaching materials rooted in radical feminist of color and Indigenous intellectual traditions are limited. In this article, we trace an intellectual and scholarly genealogy that demonstrates there is no shortage of feminist oral history research by queer, Indigenous, and women of color scholars. What is clear from this genealogy is that the questions, concerns, intentions, and processes of oral histories within Indigenous and communities of color from a radical feminist approach have a different starting point and process than technical oral history approaches. We offer four contours that emerge from this genealogy to conceptualize what we refer to as a radical feminista oral history methodology informed by the theorizations of Indigenous and women of color oral historians and rooted in the ways of being/knowing of our communities and ancestors.

Merle, P. (2025). **Les idéologies pédagogiques des établissements privés hors contrat**. *La Pensée*, *422*(2), 147-158. https://doi.org/10.3917/lp.422.0147
Cette recherche a pour objet d'étudier les idéologies pédagogiques des établissements privés horscontrat. Àpartirdecinqorientationspédagogiquesdéfiniesdansunerechercheprécédente fondée sur l'analyse quantitative de 150 rapports d'inspection des établissements privés hors contrat, deux idéologies pédagogiques sont élaborées : la primauté de l'enfant et la primauté du religieux. Ces idéologies pédagogiques sont à l'origine de pratiques et enseignements déviants. Elles ne constituent pas seulement des alternatives éducatives. Elles sont sous-tendues par des projets de société concurrents à l'organisation sociale contemporaine.

Meth, D. (2025). **Quality as Illusion? Considering Hidden Trade-Offs and Risks in Undergraduate Education Conceptualised as 'Regulated Play'**. *Higher Education Quarterly*, *79*(3), e70028. https://doi.org/10.1111/hequ.70028
In-depth interviews exploring academics' teaching practices and views on undergraduate education at one English university reveal concerning examples of educational trade-offs in delivering on national and institutional quality expectations. Evidence reveals the negative impacts on teaching and students' learning and achievements. Quality instruments reflect their neoliberal managerialist environment, its internal structures of power, organisation and monitoring and are viewed through Foucault's concept of governmentality. Academics' responses align with a post-Foucauldian construct reflecting their negotiating behaviours in this space. A new conceptual model extends on Docherty's construct of 'contained' play to capture ways in which institutional quality systems and structures might restrict learning. The questions, 'what lies hidden from the gaze of traditional quality measures?' and 'where does the real risk to quality lie?' are asked, revealing quality to be illusory in some instances. Findings reinforce the critical need to better understand teaching academics' experiences as key mediators in this area.

Michelot, F., & Lepage, A. (2025). **Apprivoiser l'IA en enseignement postsecondaire : perspectives croisées des apprenants et apprenantes et du personnel enseignant au Nouveau-Brunswick**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-12
Cette étude explore les perceptions et les pratiques liées à l'intelligence artificielle générative (IAg) dans l'enseignement postsecondaire au Nouveau-Brunswick (Canada).

Basée sur une approche mixte, elle analyse les réponses de 281 participantes et participants issus de deux établissements d'enseignement. Les résultats montrent que l'adoption de l'IAg varie selon les profils, influençant les perceptions de son utilité et de ses implications éthiques. Tandis que les étudiants et étudiantes perçoivent l'IA comme un outil pédagogique, les enseignants et enseignantes expriment des préoccupations sur son impact. Ces divergences soulignent la nécessité d'une formation systématique pour développer une littératie de l'IA adaptée aux besoins du 21e siècle.

Mijares, R. F., & Baguio, J. B. (2025). **Strategies for Emerging Instructional Materials and Relational Domains of Teachers in Public Elementary Schools**. *Advances in Research on Teaching*, *26*(4), 121-132. https://doi.org/10.9734/air/2025/v26i41391
This study was conducted to determine the strategies for emerging instructional materials and the relational domains of teachers in public elementary schools in the Braulio E. Dujali District, Division of Davao del Norte, Philippines. Utilizing a non-experimental quantitative research design with a correlational method, the study involved 131 teachers selected through universal sampling. Statistical tools employed included the Mean, Pearson Product-Moment Correlation Coefficient (Pearson r), and Regression Analysis. Findings revealed that the level of strategies for emerging instructional materials was high (M = 3.19), as was the level of relational domains of teachers (M = 3.85). A significant relationship was found between strategies for emerging instructional materials and the relational domains of teachers (p = 0.000). Furthermore, regression analysis confirmed that domains of strategies for emerging instructional materials significantly influenced the relational domains of teachers (p = 0.000). In light of these findings, the study recommends that improvements be made in specific gray areas, particularly in developing stronger interpersonal relationships, enhancing collaborative practices, and fostering empathy and effective communication, which are crucial to teachers' success in the workplace.

Mistry, H. S., & Skutil, M. (2025). **Stigma Towards Inclusion of Students With Disabilities in India: Teaching Aptitude of Pre-Service Teachers**. *European Journal of Education*, *60*(3), e70143. https://doi.org/10.1111/ejed.70143
This study examines the teaching aptitude of pre-service teachers towards inclusive education for children with disabilities in Gujarat, India. A total of 552 first-year B.Ed. students enrolled in secondary teacher education institutions participated in the survey. A two-part instrument was utilised: the first part collected demographic and professional background information, while the second part consisted of a 50-item test assessing aptitude for teaching in inclusive settings. The findings revealed that pre-service teachers in Gujarat demonstrated an overall average level of aptitude for inclusive education. However, they showed notably low aptitude in areas such as plus curriculum, curriculum adjustment, seating arrangements and the identification of intellectual disabilities. Significant differences in aptitude levels were observed based on participants' prior teaching experience and highest educational qualifications. The study concludes with a discussion on implications for policymakers and stakeholders to enhance teacher training programmes in India.

Moreno, M., Grewal, K., Cutumisu, M., & Harley, J. M. (2025). **Employing Machine Learning to Predict Medical Trainees' Psychophysiological Responses and Self- and Socially-Shared Regulated Learning Strategies While Completing Medical Simulations**. *Educational Psychology Review*, *37*(3), 70. https://doi.org/10.1007/s10648-025-10044-0

Medical simulations allow medical trainees to work within teams to develop their self-regulated learning (SRL) and socially shared regulated learning (SSRL) skills. These skills are imperative in optimizing performance and teamwork and could be reflected in physiological responses given by learners. This study examines how medical trainees' self-regulatory patterns can predict their psychophysiological responses, specifically their electrodermal activity (EDA), by employing supervised machine learning (ML). Sixty-two (N = 62) medical residents at a Canadian university participated in this study. Participants were grouped into 19 teams, with each completing one medical simulation with an appointed "leader" and "team members." Simulations were part of medical residents' curriculum and used high-fidelity manikins capable of mimicking physiological activity as "patients." Audio-video recordings of each simulation were coded for (1) behaviors (posture and gestures, facial expressions, and vocalics) and (2) regulation strategies, including SRL and SSRL, derived and adapted from the literature to fit a medical context. Psychophysiological measurement of EDA was collected using Empatica E4 bracelets throughout the simulations. Raters coded the regulatory interactions between the "leader" and "team member" at the "beginning," "escalation," and "peak" of each simulation. Results indicated that varying SRL and SSRL codes could predict EDA based on the regulatory needs of learners at different segments of the simulation. These findings contribute to the literature on applying ML modeling to predict psychophysiological responses of learners and to furthering our understanding of the use of predictive modeling within multimodal data in naturalistic learning environments.

Mullick, J., Wang, Q., Vlcek, S., & Sikder, S. (2025). **« The possibility of meeting the needs of all children »: A framework for enhancing inclusive STEAM pedagogy in early childhood settings**. *International Journal of Educational Research*, *133*, 102705. https://doi.org/10.1016/j.ijer.2025.102705
This study explored early childhood teachers' perceptions and practices of inclusive Science, Technology, Engineering, Arts, and Mathematics (STEAM) pedagogy in China. Drawing on qualitative data from semi-structured interviews and classroom observations, the study examined how teachers define and implement inclusive STEAM learning and how they address the diverse needs of all children. Findings revealed that teachers hold positive conceptual understandings of play-based, child-centered learning and apply thoughtful strategies to promote participation among children with diverse abilities. However, their pedagogical approaches remained predominantly subject-specific and play-focused, with limited interdisciplinary integration of STEAM disciplines, and the results indicated participants' inclusive practices emphasized enabling participation rather than adapting STEAM content or assessment for diverse learners. In response to these gaps, the study proposes the Inclusive STEAM Pedagogy (ISP) framework for integrating Planning, Action, and Reflection into an ongoing, flexible cycle designed to effectively meet the diverse needs of all EC learners. This framework merges Action and Product into a single phase, reflecting the simultaneous emergence of learning processes and outcomes during play. The study highlights the need for professional learning that supports inclusive, interdisciplinary, and reflective STEAM practices in early childhood education. The discussion emphasizes the utility of the ISP framework for supporting ongoing research and practioner professional development for embedding inclusive STEAM learning experiences in EC programs in China and in other global contexts.

Mundelsee, L., & Reschke, K. (2025). **Classroom interactions: The role of students' gender, classroom subject, and social relations for student hand raising, teacher calls, and**

student talk time. *International Journal of Educational Research*, *133*, 102711. https://doi.org/10.1016/j.ijer.2025.102711
Numerous studies show gender differences between boys and girls in STEM subjects compared to language-related subjects. Boys are often more interested and have better grades in STEM subjects, while girls prefer language learning and get better grades in language-related subjects. Research has already identified a number of different reasons for this pattern, but so far little attention has been paid to oral participation as potential explanatory variable, although it is directly and indirectly associated with student achievement. By examining student hand raising, teacher calling behavior as well as student talk time, the present study focuses on three specific aspects of oral participation, taking into account relationships between students, their peers, and teachers as potential moderating factors. Data from N = 204 students (54 % female, Mage = 12.29 ± 1.11 years) included self-reports and classroom observations of at least three German language arts and three math lesson. Results of multilevel analyses confirmed that girls had higher grades and interest in German, while boys showed greater interest in math. However, no significant gender differences were found in the observed oral participation variables in either subject. Peer relationships negatively affected boys' oral participation in German and positively in math, while teacher-student relationships promoted girls' oral participation in math. These findings suggest that subject interest does not directly translate into oral participation or explain gender differences in achievement. Instead, relationships with peers and teachers, but also stereotypes of students themselves appear to play a critical role in shaping in-class participation patterns.

Murray, E., Horner, A. J., & Göbel, S. M. (2025). **A Meta-analytic Review of the Effectiveness of Spacing and Retrieval Practice for Mathematics Learning**. *Educational Psychology Review*, *37*(3), 75. https://doi.org/10.1007/s10648-025-10035-1
Spaced retrieval practice harnesses two well-studied phenomena: the spacing effect, where spacing out practice over several sessions leads to a gain in retention compared to massed practice in one session; and the testing effect, where material that is tested is better retained than material that is restudied. This meta-analysis investigates if, and under what circumstances, spaced and retrieval practice can benefit mathematics learning. We found a robust small to medium effect of spaced versus massed practice overall (g = 0.28, 27 studies, 53 effect sizes). Those studies can be split into two subsets based on their experimental design, where material was either taught in isolation (10 studies, 27 effect sizes) or as part of a course (17 studies, 26 effect sizes). We found a larger, yet less robust, effect for the isolated learning (g = 0.43) than for course-embedded (g = 0.24). Our search also revealed seven studies, 32 effect sizes, which manipulated testing versus restudy. The weighted mean effect of testing versus restudy was g = 0.18. However, the 95% confidence interval crossed zero, suggesting the testing effect is not robust. Overall, our results suggest that spaced practice can improve mathematics learning for material in isolation and within a course. However, the effect may be smaller than in other domains. Additionally, the current literature does not provide conclusive evidence for a consistent effect of retrieval practice for mathematics learning, possibly due to the smaller number of studies available.

Naffi, N., & Montufar, C. S. (2025). **Autoformation en outils d'intelligence artificielle générative : un levier pour guider et optimiser la conception pédagogique**. *Revue*

internationale des technologies en pédagogie universitaire, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-05
Cet article présente un retour sur une expérimentation d'autoformation guidée à l'intelligence artificielle générative (IAg) menée dans deux cours de cycles supérieurs du programme de technologie éducative à l'Université Laval, impliquant 45 professionnelles et professionnels de l'éducation en formation. L'expérimentation visait à explorer l'appropriation progressive de l'IAg par des personnes conceptrices pédagogiques en activité, en combinant exploration autonome et accompagnement structuré. L'analyse met en évidence une courbe d'apprentissage marquée par trois phases : une curiosité initiale, suivie d'un ébranlement de la confiance en l'expertise humaine, puis une réaffirmation du rôle des personnes actrices de conception pédagogique et d'enseignement grâce à une réflexion collective. Si l'enthousiasme face aux capacités de l'IAg a dominé les premières interactions, plusieurs étudiantes et étudiants ont rapidement ressenti un sentiment de dévalorisation, remettant en question leur propre expertise. Cependant, une discussion en classe animée par l'enseignante a joué un rôle clé dans la reconstruction d'une posture professionnelle solide, en mettant en lumière la complémentarité entre l'intelligence artificielle et l'intelligence humaine. L'accompagnement pédagogique structuré a permis aux personnes étudiantes de dépasser l'appréhension initiale et de repositionner leur valeur ajoutée dans un environnement où l'IA devient un levier d'innovation et non un substitut aux compétences humaines. Ce retour d'expérience met en évidence l'importance d'une autoformation encadrée, où l'exploration individuelle est soutenue par un cadre pédagogique structurant, favorisant la réflexion critique et la contextualisation des transformations professionnelles induites par l'IA. Les recommandations issues de cette expérimentation s'articulent autour de deux axes principaux : 1)les stratégies à adopter dans l'enseignement supérieur pour une intégration réfléchie et éthique de l'IAg; 2) l'évolution du rôle des personnes actrices de conception pédagogique et d'enseignement, qui doivent se définir non plus comme simples productrices de contenu, mais comme architectes d'environnements d'apprentissage augmentés par l'IA.

Nascimento, L., Correia, M. F., & Califf, C. B. (2025). **Techno-eustress under remote work: a longitudinal study in higher education teachers**. *Education and Information Technologies*, *30*(12), 16633-16670. https://doi.org/10.1007/s10639-025-13459-y
Technology has transformed the work practices of higher education teachers (HETs), leading to stress associated with using such technology, known as technostress. Technostress in the higher education context has predominantly been framed in a negative light, assuming that harmful techno-stressors lead to adverse outcomes. Moreover, most technostress research in higher education has taken a cross-sectional approach. Contemporary research, however, frames technostress as a holistic process that includes both negative and positive aspects: the negative side, techno-distress, and the positive side, techno-eustress. The process viewpoint invites investigations on the positive side of technostress as well as those that capture its temporal, dynamic nature. This study investigates how techno-eustress experienced by HETs evolves longitudinally. Using the holistic technostress model as our guiding lens, we investigate how three techno-stressors (usefulness, reliability, and complexity), two coping mechanisms (synergic literacy, technical support), and three individual traits (coping flexibility, IT mindfulness, and age) impact HETs' positive psychological responses, and, in turn, two workplace outcomes (job satisfaction and work performance) over time. A two-wave

longitudinal paired survey design was employed to survey 712 HETs during two distinct periods of the COVID-19 pandemic. Results indicate that usefulness leads to a positive psychological response over time; IT mindfulness, coping flexibility, and synergic literacy influence a positive psychological response over time; and a positive psychological response positively impacts job satisfaction and work performance over time. The findings offer several theoretical contributions and can help policymakers, school districts, and administrators develop strategies to support HETs' psychological well-being, job satisfaction, and productivity.

Nguyen, A., Huynh, L., Dang, B., Pohjolainen, S., Mattila, J., Paajala, I. J., … Karppinen, P. (2025). **Conceptualizing and enhancing metaverse literacy for education**. *Education and Information Technologies*, *30*(12), 17133-17153. https://doi.org/10.1007/s10639-025-13486-9
The metaverse has gained considerable attention and enormous investments in recent years and is increasingly recognized as a critical domain for future interactions and communications. Despite its growing importance, there is a notable lack of research on metaverse literacy, especially in education and training. This study aims to conceptualize "metaverse literacy for education" by defining its core components and proposing a framework for its evaluation. Furthermore, we report a case study leveraging an experiential learning approach to explore how exposure to various digital platforms - Virtual Reality (VR) headsets, mobile phones, and personal computers (PC) - influences metaverse literacy and perceptions regarding its adoption. The case study engaged first-year bachelor-level students (N = 30) enrolled in an undergraduate program. Our findings reveal that learning experience with the metaverse significantly shifts students' perceptions about the effort needed for adoption and enhances their metaverse literacy for education. By focusing on these dimensions, this study makes a contribution to the understanding of metaverse literacy for education, advocating for an experiential approach to learning and adaptation in digital environments.

Nguyen, B.-P. T., Le, H. M., & Duong, B.-H. (2025). **"Why do I risk my professional reputation to do it?" Vietnamese teachers' motivations and identities in relation to private tutoring**. *Asia Pacific Education Review*, *26*(3), 781-794. https://doi.org/10.1007/s12564-025-10046-1
Private tutoring is a fact of life in many education systems, including Vietnam. However, limited scholarly attention has been paid to this phenomenon in Vietnam from the perspective of teachers who provide private tutoring, whilst public discourse mainly criticises them for being 'corrupted' and greedy. Our study responds to this research gap using a conceptual lens that focuses on teacher motivations, professionalism, and teacher identities as mediated by the neoliberalisation of education. A qualitative case study methodology was employed to examine the motivations of Vietnamese teachers who offer private tutoring and how those motivations reflect and/or challenge their broader sense of teacher identities. The findings shed light on how teacher motivations in private tutoring are largely driven by teacher–student bonds and demands for high academic performance. Also, fully acknowledging the clash between imperatives of educational equality/equity and the potential of unethical issues, teachers have their own ways to reconcile their ethics with private tutoring. Even in private tutoring lessons, they are still supposed to fulfil their duties, which shows a Vietnamese dimension of the 'struggle for the teacher's soul' currently waged around the world under the pressure of neoliberalism in education.

Ning, Y., Zheng, H., Wu, H., Jin, Z., Chang, H., & Wijaya, T. T. (2025). **Analysis of influencing factors on teachers' AI literacy under the SOR framework: An empirical study based on PLS-SEM and fsQCA**. *Education and Information Technologies*, *30*(13), 18213-18239. https://doi.org/10.1007/s10639-025-13477-w
This study, grounded in the stimulus-organism-response (SOR) theory, aims to explore how stimulus factors (school support) influence cognitive organisms (psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI), which in turn enhance behavioral responses (AI literacy), while also examining the detrimental effects of AI anxiety. A cross-sectional design was employed, utilizing sample data from 1,518 teachers. The results of PLS-SEM indicate that school support exerts a significant positive impact on psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI. These cognitive factors, in turn, significantly enhance AI literacy. However, while AI anxiety negatively affects these cognitive factors, it does not exhibit a significant direct impact on AI literacy. Additionally, the study reveals the mediating roles of psychological resilience, self-efficacy, attitude toward AI, and acceptance of AI in the relationship between school support and AI literacy. The findings of fsQCA identify five high-level configurational pathways and one non-high-level pathway, demonstrating an asymmetric relationship between these configurations. The consistency values of all six pathways exceed 0.9, indicating that these configurations are sufficient conditions influencing teachers' AI literacy. This study provides a theoretical framework for analyzing factors affecting teachers' AI literacy and offers practical guidance for policy interventions and innovative practices to enhance teachers' AI literacy.

Nolan, D., O'Donovan, M., & Lafferty, N. (2025). **Social identity approach to understanding teacher-leadership**. *International Journal of Educational Research*, *133*, 102730. https://doi.org/10.1016/j.ijer.2025.102730
Teacher-leadership has received significant consideration in recent years, being frequently acknowledged as inconsistently defined. Through the lens of social identity theory, the current study explores the concept of teacher-leadership identity from the perspective of teachers not holding formal leadership positions. The study adopts a qualitative approach involving semi-structured interviews with 14 practicing schoolteachers in Ireland, none of whom hold a formal leadership position. Results highlight the reasons why schoolteachers identify or disidentify as teacher-leaders, and the impact this can have on their engagement with leadership practices and behaviours. Formal leadership emerged as a specific barrier to informal leadership, confounded by perceptions of formal leadership cliques and exclusion of non-formal leaders. A dark side of teacher-leadership also emerged with informal leaders experiencing a lack of recognition or appreciation for their efforts, negative treatment from formal leaders, and a lack of support from formal leaders, including the principal. The role of the principal in promoting or inhibiting teacher-leadership also emerged, highlighting the pivotal role they play in the promotion of teacher-leadership in schools. Suggestions for policy, practice, and research are presented.

Noureddine, R., Boote, D., & Campbell, L. O. (2025). **Assessing the validity of utaut among higher education instructors: a meta-analysis**. *Education and Information Technologies*, *30*(12), 16687-16719. https://doi.org/10.1007/s10639-025-13449-0
A meta-analytic study was conducted of the Unified Theory of Acceptance and Use of Technology to understand higher education instructors use of technology in teaching

and learning. Through broad searches of the years 2003–2023, 117 records were identified for initial review. After reviewing the studies and removing those studies that were duplicates or did not meet the search criteria, ten studies remained for analysis. These ten studies representing global locales were analyzed for this meta-analysis. Results indicated that Performance Expectancy, (= 0.5398) (95% CI: 0.3052—0.7744), p < 0.0001; Effort Expectancy, (= 0.4846) (95% CI: 0.2695—0.6997), p < 0.0001; and Social Influence (= 0.2783) (95% CI: 0.0796—0.4770), p = 0.0061 are strong to moderate predictors of technology adoption; and Facilitating Conditions predict Use Behavior. The findings suggest that faculty need adequate support to ensure they adopt instructional technologies. Institutional policies and professional development initiatives should be designed to emphasize the practical benefits of a specific technology (PE), ensure both adequate training for digital literacy and selection of practical technologies (EE), and provide open and collaborative training environments with clear administrative expectations (SI). Additionally, the significance of robust infrastructure and support systems (FC) to actual use is made explicit. Addressing these factors can improve adoption among instructors, fostering innovation and enhancing the higher education learning experience. Future research should focus on the effect of moderating variables on technology adopting to reduce the heterogeneity found in the current study.

Nurlaela, N., Irfan, A. M., Rahman, M. H., Putra, K. P., Mahmud, A., & Setialaksana, W. (2025). **Understanding AR/VR Adoption through heutagogy and cybergogy: Insights from the UTAUT2 model in vocational education**. *Education and Information Technologies*, *30*(12), 17111-17132. https://doi.org/10.1007/s10639-025-13465-0
Integrating advanced technologies like Virtual Reality (VR) and Augmented Reality (AR) in educational settings can significantly enhance learning, especially in vocational education, where practical application is crucial. However, understanding the factors influencing student acceptance of these technologies remains challenging. This study examines how Heutagogical and Cybergogical Behaviors affect vocational high school students' intentions to use AR and VR in classrooms, with Virtual Experience as a mediator. By extending the UTAUT2 model, the research offers insights into technology adoption in vocational education. Conducted in July 2024 with 438 students from six Indonesian regencies, the study used a quantitative, non-experimental design. PLS-SEM analysis revealed that Heutagogical and Cybergogical activities significantly influenced students' performance and effort expectancy, increasing their intention to use AR and VR. Virtual Experience fully mediated the effects of performance expectancy, hedonic motivation, social influence, and price value on students' intentions. However, effort expectancy and facilitating conditions directly impacted behavioral intentions, underscoring the importance of ease of use and support in adopting these technologies. The findings suggest that integrating structured and self-directed learning approaches, providing immersive hands-on opportunities with AR/VR tools, and ensuring ease of use and strong institutional support can enhance technology adoption. These strategies align vocational training with industry demands, preparing students for technologically driven workplaces.

Oduori, D. O., Kirui, G., & Serem, K. E. (2025). **Adoption of online/blended learning approach in the delivery of animal welfare training for animal health professionals training in Africa**. *Education and Information Technologies*, *30*(11), 15399-15412. https://doi.org/10.1007/s10639-024-13245-2

This study explores the adoption of online/blended learning approach in the delivery of animal welfare training among learners in animal health/science courses in Africa. Kenyan institutions approved to offer Animal Health training in 2020 by the Kenya Veterinary Board (18 institutions) were selected, in addition to select institutions in Gambia, Liberia, Malawi, Rwanda, Uganda and Tanzania. Online Survey were used to obtain information on the learning environment and institutional resources. Information on the learners' perception on online/blended learning approach in animal welfare training was obtained. Eighty three precent (83%) of the participants supported the suitability of animal welfare training via online/blended learning (n = 517) with most of them agreeing that content coverage was at least above average, 49.6% (n = 508). Despite a general positive acceptance of the approach, only 52.5% had access to an internet-capable device, 36.2% had access to the timely availability of recordings/teaching notes and 26.2%, had access to reliable internet connectivity (n = 516). Pedagogical tools students had interacted with the most, and had the highest preference for in descending order were videos, photos and case reports. Online/blended learning has been largely accepted by learners undertaking animal health-related courses in Africa. It offered an opportunity for the continuity of learning when traditional classroom sessions were restricted during COVID-19 pandemic. Training institutions nonetheless are yet to fully support this approach. Learner sponsors should therefore support remote-learning by facilitating access to devices and a conducive environment.

Okulu, H. Z., Yorulmaz, A., & Cokcaliskan, H. (2025). **Primary School Teachers' Perception of STEM Integration in Turkey: A Q-Methodological Study**. *European Journal of Education*, *60*(3), e70190. https://doi.org/10.1111/ejed.70190
Integration is a key element in science, technology, engineering and mathematics (STEM) education. Connecting domain-specific or shared knowledge and skills within a course, unit or curriculum based on real-life contexts is crucial for STEM integration. The success of STEM education depends on teachers' perceptions of the integration. This study used Q methodology to determine perceptions of primary school teachers about STEM integration. The study group comprised primary school teachers (n = 28) who had completed in-service training programmes for STEM education in Turkey. The Q-set—a data collection tool comprising 23 items—was applied to the study group. Teachers' perceptions were categorised as interrelated STEM integration for real-life contexts, merging content knowledge focused STEM integration, science and mathematics focused interrelated STEM integration and interdisciplinary STEM integration. The participants showed a tendency to integrate real-life contexts and interrelated STEM knowledge in classrooms and did not adopt a single discipline-oriented teaching approach. They were limited in their efforts toward engineering-oriented/supported integration.

Özgenel, M., Brown, M., O'hara, J., & Özkan, M. (2025). **What Can We Learn From Cross-Cultural Comparisons of Professional Development? Professional Development Ecosystems in Ireland and Turkey**. *European Journal of Education*, *60*(3), e70158. https://doi.org/10.1111/ejed.70158
This comparative study explores the professional development (PD) landscapes of educators in Ireland and Turkey, exploring their respective needs, expectations, challenges and levels of satisfaction with the PD that is available. Employing a qualitative approach, semi-structured interviews were conducted with a diverse cohort of teachers

in both countries. The findings reveal a universal appreciation for PD among educators, yet notable divergences emerge in delivery methods, cultural perceptions and systemic support structures. Irish teachers benefit from a decentralised framework, affording them autonomy in selecting PD activities, whereas their Turkish counterparts operate within a more centralised, government-directed system. Shared obstacles include time constraints, limited resources and the desire for increased collaborative opportunities. These insights highlight the impact of cultural and systemic factors on PD practices and suggest that embracing flexible, teacher-centred approaches could enhance the efficacy of PD on a global scale.

Ozturk, Y., Gangal, M., Liebovich, B., & Fruin, H. (2025). **Pre-service teachers' perceptions on outdoor play: A study of Türkiye, England, and Australia**. *International Journal of Educational Research*, *133*, 102735. https://doi.org/10.1016/j.ijer.2025.102735
This study explores pre-service early childhood education teachers' perceptions of outdoor play across Türkiye, England, and Australia, focusing on issues such as culture, curriculum and teacher training. Using a qualitative instrumental case study, semi-structured interviews were conducted with 15 participants, five from each country, and the documents of three countries' teacher training programmes were analyzed. The findings indicate that outdoor play is universally recognized as essential for children's physical, cognitive, and socio-emotional development. Turkish pre-service teachers regard outdoor play as a tool for energy release and emotional development but note that practical implementation is limited due to infrastructural and cultural barriers. English participants emphasize outdoor play's structured and educational aspects, particularly its role in language development and problem-solving. Australian pre-service teachers view outdoor play as a natural and intrinsic part of childhood, fostering confidence, self-esteem, and a connection to nature. The study highlights the influence of cultural and environmental factors on outdoor play practices, with shared concerns regarding parental hesitations and weather conditions. While all three countries' curricula support outdoor play, participants identified gaps in teacher training programs, particularly in practical outdoor experiences. The findings underscore the need to integrate more experiential learning opportunities into teacher education programs, enabling future educators to effectively implement outdoor play and enhance its role in fostering holistic child development.

Pacardo, L. M., & Baguio, J. B. (2025). **Educators' Pedagogical Capabilities in Public Elementary Schools: A Multivariate Analysis**. *Asian Journal of Education and Social Studies*, *51*(7), 235-254. https://doi.org/10.9734/ajess/2025/v51i72117
This study examined the pedagogical capability of 131 public elementary school educators in the Manay District, Division of Davao Oriental, and explored how demographic factors influence their teaching effectiveness. Employing a descriptive-comparative research design, data were analyzed using ANOVA and independent samples t-tests to determine significant differences across four dimensions: professional knowledge, instructional skills, personal attributes, and ethical standards. Post-hoc analyses using Tukey's test identified specific group differences. Results showed that age significantly affected all dimensions of pedagogical capability, with teachers aged 56 and above demonstrating the highest overall capability (mean = 4.24), particularly in professional knowledge (mean = 4.21). Conversely, teachers below 25 scored the lowest in this domain (mean = 3.11). Teaching experience also had a significant effect, with those having over 10 years of experience showing higher professional knowledge (mean

= 3.88) than those with less experience. In contrast, educational attainment did not yield a significant impact. These findings underscore the importance of age and experience in shaping pedagogical capability. It is recommended that school administrators implement structured mentorship programs, enabling experienced educators to support the professional growth of younger and less experienced colleagues.

Pandya, S. P. (2025). **Blended pedagogies in practice-based courses in undergraduate education: Exploring academic motivation, student self-regulation, and metacognition**. *International Journal of Educational Research*, *133*, 102655. https://doi.org/10.1016/j.ijer.2025.102655
Blended learning requires different proficiencies from learners and there is limited evidence on blended learning for undergraduate students specifically in practice-based courses. Within the personalised learning frame in virtual academic environments, journal writing and mindfulness interventions are gaining prominence. This study examines the impact of mindfulness sessions on learner motivation, self-regulation, and metacognition of undergraduate students from select practice-based courses (social work, nursing, engineering, architecture, fine arts) in select South Asian cities, compared to journal writing, both delivered online. Mindfulness sessions were more impactful and participants' gender, year of study, family configuration, apprenticeship engagements, and program compliance were significant predictors. Female students, in advanced or final years of their studies, belonging to single-parent families, not doing apprenticeship alongside study, showing prudent compliance with mindfulness sessions and completing higher number of corresponding homework sessions, gained most. Mindfulness sessions could be incorporated in undergraduate practice-based courses, and their blended learning curricula in particular, to improve learner motivation, self-regulation, and metacognition. Emphasis would need to be laid on intervention compliance and some modifications would be needed for male students, students in their early years of undergraduate study, cohabiting with both parents and siblings, and doing apprenticeship alongside study.

Parfitt, A., Gristy, C., Read, S., & Garland, M. C. (2025). **Multigrade teaching and learning: Developing theoretical frameworks through mapping conceptual territories with an inclusive education lens**. *International Journal of Educational Research*, *133*, 102675. https://doi.org/10.1016/j.ijer.2025.102675
This paper offers an engagement, through an inclusive education lens, with the theoretical frameworks and concepts used in multigrade teaching and learning. With the aim of developing and extending thinking about pedagogies in diverse education settings, it employs a scoping literature review to identify and examine the various conceptual frameworks which underpin thinking about and practice within multigrade classrooms. It is argued that close study of the knowledges used by teachers in multigrade classrooms, which are implicitly diverse education spaces, offers a useful way with which to consider pedagogies in all diverse education settings. Study of multigrade classrooms also offers space to develop understanding of the tensions for inclusive education generated through 'mainstream' organisation of schooling as single age classes. Emerging in the body of literature resulting from the scoping study are five 'knowledge territories' which appear to be contributing to the work of educators in multigrade settings: Child centred approaches, constructivist thinking; inclusion; cooperative and collective education; Education for All. Through the process of working together with the five strands, looking at where they overlap and interact, we suggest that it is possible to assemble a 'core pedagogik' for multigrade classrooms. The article

concludes with arguments for the potential of and capacity for multigrade settings to be productive spaces for development of pedagogical practices and theoretical understandings of all diverse classrooms.

Park, H., & Scanlon, D. (2025). **General educators' perceptions of struggling learners in an inaugural project-based learning Capstone**. *International Journal of Inclusive Education*, *29*(11), 1875-1903. https://doi.org/10.1080/13603116.2024.2310673
Following participation in an inaugural year-end project-based learning (PBL) 'Capstone', teachers in a Catholic middle school were interviewed as a focus group for their reflections on the performance of learners whom they perceived to 'struggle' during the academic year. A thematic analysis was conducted to extract categories and themes. Findings indicate the teachers believed PBL substantially benefited the learners, although their cognitive and academic skills were perceived as barriers to successfully meeting PBL learning expectations. Nonetheless, the PBL format was considered to have enhanced the students' participation, motivation, senses of accomplishment, and ownership of their work. Implications for implementing PBL as a means to create inclusive and appropriate learning environments for all are discussed, as well as how teachers can scaffold 'struggling' learners.

Pathak, B., Alakkad, M. F., & Kumar, V. (2025). **Institutional Environment and the Use of Blockchain Technology: Exploring the Context and Conditions of Using Blockchain in the Higher Education Institutions**. *Higher Education Quarterly*, *79*(3), e70034. https://doi.org/10.1111/hequ.70034
Blockchain (BC) technology is widely believed to be the next disruptive technology that can address challenges in higher education institutions (HEIs) and support resilient strategies. This study aims to contribute to the literature and inform policymakers about BC's capability and potential in HE by examining enablers, barriers and contextual factors influencing BC adoption in HEIs. Through qualitative research, including interviews with 20 BC experts, we identified 12 factors affecting BC adoption. Key enablers include immutability, scalability, usability, management commitment, collaboration and standardisation, while barriers encompass government regulations, bureaucracy, governance and language. Additionally, privacy and cost emerged as factors that could act as both enablers and barriers. Our findings highlight the critical role of the institutional environment, revealing five new enablers and barriers to BC adoption in HE. We offer several strategies for facilitating BC technology adoption, taking into account the environmental, institutional and technological in-depth insights gained from this research.

Paula, L. T. de. (2025). **The Fake News Observatory: a teaching resource to cultivate an informed civic culture in Brazil**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wl
Inspired by Paulo Freire's Pedagogy of Freedom, this text advocates an educational paradigm that fosters critical awareness, curiosity, and ethical discernment in the context of online information. It presents an educational praxis grounded in information culture, utilising a news-checking methodology, termed the "Fake News Observatory", which aims to enhance the identification of fake news and cultivate critical digital competence within the domain of information culture. Information culture is of crucial importance for citizen education in a digital world, enabling individuals to become

active, conscious participants in building a fairer and more democratic society in line with the Brazilian government's plans for digital education.

Peltonen, T., & Kilpeläinen, R. (2025). **Training of village school teachers in Finland: Multi-grade teaching and inclusion**. *International Journal of Educational Research*, *133*, 102685. https://doi.org/10.1016/j.ijer.2025.102685
This article explores the practices and teaching approaches used in the diverse and inclusive multi-grade classrooms of Finland's village schools and the holistic Nordic model of schooling. It also shows how teacher training in Finland might be developed. The context of Finnish village schools are explored together with background to initial teacher education and continuing professional development. A new model for village teacher education (CPD) in Finland was developed in 2016 and is presented here together with results of research projects carried out in 2017 and its more recent developments in 2022/24. The locality based teacher education model is informed by multi grade school systems such as the Nucleo school model and the Escuela Nueva model. This research also explored what teachers working in village schools see as the advantages of these small, multi-grade teaching and learning contexts. The research showed that teachers desire training in the new Finnish core curriculum, multi-grade teaching and ICT. The features of multi-grade teaching and learning identified by teachers include: freedom of teaching and learning, cooperation with parents, getting to know the child, a safe environment with classroom rules, strategies and a good atmosphere, the possibility to create learning situations for all kinds of learners, individuality and non-comparability between pupils and learning from other pupils. We argue that ITE and CPD for teachers in Finland should increase the effectiveness of all teachers in multi-grade settings. This would help teachers optimise pupil learning in all kinds of diverse, heterogeneous classes and develop their preparation for inclusive and simultaneously respond to the need to learn 21st century skills. We argue all teachers need to be supported in their efforts to develop different teaching Powered by Editorial Manager® and ProduXion Manager® from Aries Systems Corporation approaches and to increase their freedom of choice and that multigrade school settings are a perfect place to develop these skills.

Pereira, D., & Pocinho, M. (2025). **How Attachment Based Educational Practices Can Contribute to Reduce Stigma at Schools?** *European Journal of Education*, *60*(3), e70161. https://doi.org/10.1111/ejed.70161
This study aims to evaluate the formative and reflective methodology—Thinkspace—which is aimed at teachers and based on Attachment Theory, allowing pedagogic strategies to be adjusted to the internal working models of attachment of students with challenging behaviours. The sample consisted of 28 teachers from the 5th to the 9th grade of schooling, belonging to schools in the Autonomous Region of Madeira, Portugal. We used a sociodemographic questionnaire, the Adult Attachment Scale, the Student-Teacher Relationship Scale and the Teacher Report Form for Teachers as evaluation instruments. Results show important changes in how teachers evaluate their students' behaviour and educational strategies, with higher use of Proximity and less use of Conflict within the relationship with challenging students. In conclusion, the "Thinkspace" methodology helped teachers adjust their strategies for improving the pedagogical relationship with the students that they considered challenging. Despite the small sample size, the study has significant ecological validity, providing clear indications that more research should focus on the applicability and benefits of educational practices informed by Attachment Theory and the "Thinkspace" model.

Pereira, P. D., Heitink, M. C., Schildkamp, K., & Veldkamp, B. P. (2025). **The M-PerFeCt questionnaire: assessing higher education students' motivation in a peer feedback context**. *Quality & Quantity*, *59*(3), 2577-2621. https://doi.org/10.1007/s11135-025-02084-z
In higher education, teacher feedback has increasingly been replaced or complemented with peer feedback. But, when students lack motivation, they may not participate in the peer feedback activity adequately, and, thus, the activity may not have the desired effect. Motivation is a complex, difficult-to-measure concept, and existing questionnaires for assessing students' motivation in the context of a peer feedback intervention in higher education have each considered only a few aspects of motivation to learn or motivation to participate in the peer feedback activity. However, a questionnaire that concurrently assesses (almost) all aspects of higher education students' motivation in a peer feedback context is needed for researchers and practitioners to obtain a complete picture of students' motivation, so they can determine whether and how this motivation needs to be improved. Therefore, this study aimed to develop the Motivation in a Peer Feedback Context (M-PerFeCt) questionnaire. Methodological pluralism was used to capture this complex concept while ensuring more rigorous scientific results, including eliciting a student and expert appraisal of the questionnaire and collecting responses to the questionnaire from higher education students in The Netherlands and performing exploratory and confirmatory factor analyses. Pre-activity and post-activity forms of the questionnaire were developed and validated. The final questionnaire comprised 66 items in 19 scales. The questionnaire provides insight into the underlying structure of students' motivation in a peer feedback context. Additionally, it enables teachers and researchers to assess students' motivation in a peer feedback context.

Perrin, N., Piot, D., Vita, L., Bationo-Tillon, A., & Guibourdenche, J. (2025). **Des hypothèses pour concevoir des tâches permettant aux étudiants et étudiantes d'évaluer la pertinence des textes générés par les IA**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-06
La mise à la disposition du grand public des IA génératives constitue un défi pour l'enseignement supérieur. Pour faire face à cette situation, nous proposons de concevoir des tâches permettant aux étudiants et étudiantes d'évaluer la pertinence des textes générés par les IA. Nous le faisons en nous engageant dans un processus itératif de conception qui s'inscrit dans une méthode de recherche basée sur la conception. Ce processus nous permet d'expliciter et de tester nos hypothèses de conception. Celles-ci portent notamment sur les conditions de viabilité des configurations d'activités collectives en formation et sur l'incidence de toute technique – et ici de la technique des IA génératives – sur la cognition humaine.

Proust-Androwkha, S., & Denis, C. (2025). **Utiliser ChatGPT dans un travail de conception pédagogique : une étude des perceptions des étudiants basée sur le modèle de l'acceptation située**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-07
Cet article porte sur l'intégration de l'intelligence artificielle générative, et plus particulièrement du chatbot ChatGPT, dans l'enseignement supérieur. Il explore comment l'usage prescrit de ChatGPT dans un cadre pédagogique influence l'acceptation des étudiants vis-à-vis de cette technologie. S'appuyant sur l'approche de l'« acceptation située » de Bobillier Chaumon (2016), ajustée au contexte

d'apprentissage, l'article analyse l'acceptation technologique à travers quatre dimensions : individuelle, interpersonnelle, organisationnelle et transpersonnelle. La méthodologie adoptée est qualitative, analysant 31 comptes-rendus réflexifs d'étudiants ayant expérimenté ChatGPT lors d'une activité pédagogique conduite entre décembre 2023 et janvier 2024. Les résultats montrent des perceptions variées des étudiants. Ils soulignent l'importance de maintenir l'engagement actif et l'esprit critique des étudiants face aux technologies émergentes, afin de maximiser leur potentiel éducatif tout en gérant les défis qu'elles présentent.

Purtell, R. E., Robey, C. A., Butcher, M. D., & Martin, M. M. (2025). **Inclusivity of students with special education needs and disabilities: memorable messages from teachers in secondary schools**. *International Journal of Inclusive Education*, *29*(10), 1766-1780. https://doi.org/10.1080/13603116.2024.2303123
Given that students spend considerable time with their teachers, the instructional realm is an important context for studying memorable messages. We sought to identify memorable messages about inclusivity in the classroom that first-semester college students recall from their secondary school teachers. Specifically, this study focused on messages about the inclusion of students with special education needs and disabilities (SEND). Students recalled memorable messages that revealed prosocial themes including those that emphasised the importance of including students with SEND, treating all students equally, and reframing neurodivergence as positive.

Ralund, S., & Weiss, F. (2025). **The University Sector Has Become More Application-Oriented: Evidence From Course Descriptions Using Text Analysis for the Case of Higher Education in Denmark**. *Higher Education Quarterly*, *79*(3), e70044. https://doi.org/10.1111/hequ.70044
In this article, we analyse changes in the language use to describe the content of higher education in Denmark between 2014 and 2021. Based on text analysis of course descriptions of every university course in Denmark, we show steady growth in the use of applied, practical and vocationally oriented terminology. This trend is not only driven by a transformation towards more applied fields within higher education, but also directly affects courses offered within the arts and humanities, for example, which have been under strong political pressure to adapt to market needs during the period in question. Within the humanities, languages have largely followed this path, while fields such as philosophy and theology have resisted the trend and only implemented minor changes. Overall, our findings demonstrate a shift towards highlighting the application of knowledge and competences within Danish higher education. This is in line with the broader international discourse in recent years, including conclusions of several qualitative studies and theoretical contributions.

Ramezani, S. G., Mostafavi, Z. S., & Godfrey, H. (2025). **A Checklist for a Comprehensive Accreditation Model for Fully Electronic Higher Education Institutions: Synthesising Criteria and Expert Perspectives**. *Higher Education Quarterly*, *79*(3), e70030. https://doi.org/10.1111/hequ.70030
This research focuses on developing a comprehensive accreditation model for online, electronic, and distance education in higher education institutions (OEDE-HEIs). The surge in OEDE's global prevalence necessitates an evolved accreditation framework that addresses unique institutional needs. This study employs a mixed-methods approach, combining a deductive meta-synthesis of existing literature with an inductive, qualitative

analysis of expert opinions. The objective was to integrate various accreditation criteria into a cohesive checklist tailored to OEDE-HEIs, ensuring robustness and relevance in the rapidly changing educational landscape. The research identified 5 principal themes and 45 subthemes, encompassing organisational structure, educational dimensions, research integration, support systems, and technological infrastructure. Key findings include the importance of organisational adaptability, emotional and administrative support, and the critical impact of technology on all facets of OEDE. This led to the creation of a novel, all-encompassing accreditation checklist, offering a holistic view of essential factors for high-quality, responsive online education. Additionally, the study highlights potential limitations, including regional biases from expert feedback and the dynamic nature of technological advancements. Recommendations for future research include broadening expert perspectives, regular updates to the accreditation criteria, and examining practical application challenges. This research contributes to the field by providing a detailed framework for accrediting OEDE-HEIs, fostering a more holistic, adaptable, and student-centric approach. Its implications extend to practitioners, policymakers, and educators, guiding operational strategies, policy formulation, and educational delivery enhancements in OEDE-HEIs.

Ramsookbhai, S. (2025). **I wore my Reeboks and embraced risk in a doctoral study; a teacher-researcher tale**. *International Journal of Qualitative Studies in Education*, *38*(7), 990-1008. https://doi.org/10.1080/09518398.2024.2439797
The requirement that a doctoral dissertation must contribute an original body of knowledge can present a quandary to the doctoral candidate, how does one pursue this route without embracing risk? Through reflective storytelling, this narrative delves into the transformative journey of a teacher-researcher navigating the doctoral study environment. Drawing on personal experiences and reflections, this tale elucidates the significance of embracing risks in a scholarly pursuit. This paper aims to illustrate the theme of risk-taking, elucidating how stepping into the unknown fostered innovation and self-discovery. In presenting a teacher-researcher tale, this empirical paper is rooted in the doctoral dissertation process, as well as a retrospective perspective on three risks undertaken in the doctoral study. These approaches are risky as they presented a methodological challenge which were becoming a multiple bricoleur; adopting a story writing approach; and presenting the data as a play.

Rao, Y., Yin, R., Chen, R., Li, J., & Chen, Y. (2025). **The potential of dynamic mathematics systems to promote mathematical abstraction levels of secondary school students**. *Education and Information Technologies*, *30*(11), 15587-15619. https://doi.org/10.1007/s10639-025-13373-3
Mathematical abstraction constitutes the foundational cornerstone for the establishment and evolution of mathematical disciplines, serving as the pathway through which mathematical concepts emerge. As one of the information technologies widely applied in mathematics education, the Dynamic Mathematics Systems (DMS) have been found to have a positive impact on mathematics learning. However, how DMS enhances students' mathematical abstraction skills remains a worthwhile area of exploration. In this research, with the aim of fostering secondary school students' mathematical abstraction skills, we have developed a visual, dynamic, and incremental Learning Progression-Dynamic Mathematical System (LP-DMS) teaching model. This model is grounded the dynamic mathematics systems and is guided by the theory of learning progression. It comprises five key stages: Delineating dimensions of the level of mathematical

abstraction, Designing the content and activities of instruction, Formulating realistic representations of mathematical abstraction levels, Designing evaluation tasks, and Assessing the effectiveness of teaching. Students from a secondary school in Guangzhou were selected to participate in a quasi-experimental research under the guidance of the LP-DMS model. The changes in the mathematical abstraction levels of the students in the experimental class were evaluated by quantitative analysis and interviews. The results suggested that (1) the mathematical abstraction of students in the experimental class was significantly elevated, and (2) students' ultimate mathematical abstraction varied notably among different knowledge topics, especially in challenging domains. The findings of the study indicate that the LP-DMS teaching model is effective in enhancing the mathematical abstraction levels of secondary school students.

Rinck, F. (2025). **Des textes de l'IA générative pour former à l'enseignement de la production écrite**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-10
L'article présente une expérience menée auprès de futurs enseignants et enseignantes du primaire en France. Pour les former à l'enseignement de l'écriture, des textes issus des IA génératives ont été utilisés en complément de textes produits par des élèves du primaire et de textes produits par les futurs enseignants et enseignantes, tous selon la même consigne. L'expérience amène les enseignants et enseignantes à lire en profondeur les textes des élèves, à s'interroger sur les caractéristiques du texte attendu et sur les objectifs à donner aux élèves pour leur faire travailler étape par étape tous les ingrédients nécessaires au texte à produire.

Risan, M., & Shavard, G. (2025). **A systematic scoping review of empirical research on assessment practices in initial teacher education**. *International Journal of Educational Research*, *133*, 102753. https://doi.org/10.1016/j.ijer.2025.102753
Assessment is a critical element of education, as it in many ways shapes how we teach and learn. Yet, systematic empirical knowledge on assessment practices in teacher education is scarce. This scoping review maps methodological and substantial characteristics of empirical research on assessment of pre-service teachers in initial teacher education. The analysis draws on 97 empirical articles published between 2014 and 2024, spanning diverse methodological approaches. The analysis discusses six patterns. First, we find considerable methodological variability, yet almost no comparative studies. Second, the focus on assessment tools is prominent, while limited attention is placed on the specific aspects of professional knowledge being assessed. Third, research largely explores assessment artifacts or actor perspective, with comparatively less focus on how assessment processes unfold in situ. Fourth, assessment practices are often studied in isolation, largely overlooking how they align with and influence program design, as well as teaching and learning. Fifth, a critical examination of the entanglement of summative and formative assessment is rare. Finally, research on how integration of professional knowledge is captured and assessed in teacher education remains limited, highlighting promising avenues for future research.

Ritchie, K. C., Doe, C., & Becker, E. (2025). **Teacher Emotion-Regulation in the Elementary Classroom: A Psychological Case Study**. *European Journal of Education*, *60*(3), e70139. https://doi.org/10.1111/ejed.70139
Elementary classroom teaching involves complex emotion labour with a wide range of often co-occurring positive and negative emotions. How teachers engage in the

executive function of regulating their emotions in the classroom can influence the quality of instruction they provide and promote their own well-being. The objective of this study was to describe how one teacher regulated his emotions within the complexities of classroom instruction. Using single-subject psychological case-study methodology, an elementary school teacher, with over 15 years of experience in different countries and contexts, participated over the last 3 months of the school year. The teacher demonstrated emotion awareness of self and students, with emotion regulation encompassing an intersection of anticipatory and response-focused strategies with deep and surface acting strategies. Emotions that could not be regulated in deep acting ways were consistently associated with workplace demands that the teacher had little or no agency to change.

Riyat, M. K., & Kakkar, A. (2025). **Examining the role of the expectancy confirmation model in sustaining user intention on educational Technology platforms**. *Education and Information Technologies*, *30*(11), 16083-16106. https://doi.org/10.1007/s10639-025-13434-7
Technological advancements, particularly in the field of education, are influencing the future course of education and the process of acquiring knowledge. Prior studies have investigated the implementation of education technology (edtech), but has paid little attention on continuous intention of using it. This research broadens the application of the expectancy confirmation model with edtech platforms features and positive word of mouth (WOM) along with investigates perceived usefulness (PU) derived by users from ed-tech platforms services that can affect the level of satisfaction and to check whether this satisfaction influences continuous intention and WOM. The study also investigates whether this satisfaction influences their intention to continue using the platform and their likelihood to recommend it to others. Purposeful sampling is employed to acquire data from respondents. The initial number of respondents was 610. However, respondents who had no prior experience with the platforms or had provided inadequate data were eliminated. Therefore, a total of 559 relevant respondents were included in the study. The data were analysed using SmartPLS version 4. The study's findings suggest that user satisfaction, as measured by the perceived usefulness of platforms, has a favourable impact on both the user's intention to continue using the platform and their likelihood to engage in positive word-of-mouth communication about edtech platforms.

Sahin, E., Suh, J. K., Dursun, J. E., & Hand, B. (2025). **Investigating teachers' perceived costs and benefits toward a knowledge generation environment**. *International Journal of Educational Research*, *133*, 102686. https://doi.org/10.1016/j.ijer.2025.102686
In knowledge generation environments, students actively engage as classroom participants, tasked with creating and developing new concepts and materials both individually and collaboratively. This approach aims to deepen their understanding beyond the provided information and foster meaningful learning experiences. However, transitioning from traditional learning focused on knowledge replication to generative learning is complex. Building on previous research centered on teacher concerns, we recognize that change incurs costs for each teacher involved, necessitating an examination of the benefits compared to these costs. This study employs a cost-benefit framework to assess teachers' perceptions of the value of professional development (PD) in aiding their understanding of knowledge generation. Conducted as a multiple-case study involving ten K-5 teachers, data were collected through semi-structured interviews, vignettes, written reflections, and classroom observations. A key contribution of this study

is the introduction of axiological orientations—value frameworks that we argue influence the development and implementation of knowledge generation environments. The findings underscore the critical role of perceived costs and benefits in determining the effectiveness of PD initiatives aimed at promoting knowledge generation. The analysis reveals that teachers' willingness to adopt and implement knowledge generation environments heavily depends on their perceived benefits versus costs in instructional practices, epistemic tools, and orientations.

Salem, M., & Shaalan, K. (2025). **Unlocking the power of machine learning in E-learning: A comprehensive review of predictive models for student performance and engagement**. *Education and Information Technologies*, *30*(13), 19027-19050. https://doi.org/10.1007/s10639-025-13526-4
The proliferation of digital learning platforms has revolutionized the generation, accessibility, and dissemination of educational resources, fostered collaborative learning environments and producing vast amounts of interaction data. Machine learning (ML) algorithms have emerged as powerful tools for analyzing these complex datasets, uncovering patterns and trends that offer deeper insights into student performance and engagement. This systematic review examines the application of ML models in e-learning, synthesizing current research findings, methodologies, and challenges. Key contributions include the categorization of ML models based on their applications, an analysis of their predictive accuracy in forecasting student performance and engagement, and the identification of critical data types and sources that enhance model effectiveness. The study highlights ML's transformative potential in personalizing educational experiences, enabling targeted interventions, and improving learning outcomes. Furthermore, it explores the role of ML in facilitating data mining activities, predictive algorithms, and outcome-driven educational strategies within diverse online learning environments. By addressing gaps in the literature, this review not only underscores the practical implications of ML in e-learning but also identifies future research directions aimed at advancing the integration of ML technologies in educational systems. These insights provide a foundation for educators, researchers, and technologists to harness ML for enhancing teaching and learning processes.

Şanal, S. Ö., Güler, T. D., & Torun, F. (2025). **Supporting learning difficulties with e-book based on context-based teaching strategy from social perspective: design and experience**. *Education and Information Technologies*, *30*(11), 14661-14702. https://doi.org/10.1007/s10639-024-13314-6
Although the positive effects of the use of technology for students with learning disabilities (LD) have been reported, there is a lack of both theory and practice in terms of integrating technology with the appropriate strategy in accordance with the student, content and purpose. Both teaching materials developed with qualified strategies and the active involvement of the target audience in the process are a need to design effective and sustainable learning materials and processes for LD. This study involved both the production of a material with the common views of stakeholders related to LD (individuals diagnosed with LD, special education teachers, academics working on LD) and the examination of the effectiveness of this material. The focus of the study is primarily on the fact that human being is a social being and learning, language and reading are social phenomena. In this context, within the framework of social constructivist perspective, an e-book design based on context based teaching (CBT) strategy and its effectiveness on reading performance were analysed. The study involved a two-stage

process. In the first phase, design-based research was conducted and a CBT-supported e-book (DIJIKIT) was developed. In the second stage, DIJIKIT and an e-book were compared in an adapted alternating implementation design. The participants of the study in the CBT process consisted of researchers, three special education teachers, academicians and two primary school students diagnosed with learning disabilities. In each cycle of the DBR, the participants provided feedback on the material. Semi-structured interviews, focus group discussions, video recordings and a researcher's diary were used as data collection tools in the DBR. As a result of the DBR, DIJIKIT design and content features were determined. In the experimental process, DIJIKIT was used by three primary school students diagnosed with learning disabilities. In the experimental process, efficacy (the informal reading invetory), reliability (treatment integrity, interobserver agreement) and social validity (social validity forms) data were collected. The reading comprehension performances and reading levels of all three students increased. Social validity data supported the experimental process data and clearly demonstrated the need for effective instructional technologies for both parents and teachers. The study offers practical implications and recommendations for future researchers in terms of exemplary design features and greater visibility of the relationship between instructional technologies and special education.

Sand, E., & Levy, G. (2025). ***The Effect of Teachers' Cognitive Skills on Students' Educational Achievements*** (Working paper N° 2025.04). Consulté à l'adresse Bank of Israel website: https://EconPapers.repec.org/RePEc:boi:wpaper:2025.04
We investigate the effects of various measures of science teachers' cognitive skills—based on academic degrees, math matriculation scores, and psychometric math scores—on their students' educational achievements. Utilizing detailed administrative data of 12th grade students and their science teachers, spanning the years 2012 to 2019, we find that teachers' cognitive abilities—mainly those measured by math matriculation scores—have clear and positive effects on both students' short-term matriculation test scores and several long-term measures of academic success, such as the probability of pursuing post-secondary studies at a research university and the probability of choosing a STEM major subject. Additionally, teachers with higher cognitive abilities are shown to lead to higher gains, particularly among students with stronger aptitude and same-gender student-teacher matching.

Sassi, M. (2025). **La formation des formateurs aux examens pratiques objectifs et structurés (EPOS) en Tunisie : un changement de paradigme pour l'évaluation des stages en pharmacie**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wp
Les métiers de demain ne peuvent être abordés sans repenser les enjeux éducatifs et mettre en œuvre de nouvelles pratiques dans la formation des formateurs et des apprenants. Des changements ont progressivement vu le jour à la faculté de pharmacie de Monastir, en Tunisie, menant à l'adoption des « examens pratiques objectifs et structurés (EPOS). Cet outil d'évaluation des travaux pratiques et des stages au cours des études médicales permet de s'affranchir des biais des méthodes classiques, notamment la subjectivité, la dépendance du jury et l'iniquité. Ce dispositif permet aux étudiants, en situation active, de traiter l'information et mobiliser les acquis. La réforme des méthodes d'évaluation implique obligatoirement une formation pédagogique des formateurs, pour leur permettre de s'approprier ces outils.

Sethy, Wright, & Salitrynski. (2025). **Adapting 'Ethics Bowl' Strategies for Teaching Introductory Ethics Course – A Case Study of an American Community College**. *Community College Journal of Research and Practice*, *49*(9), 568-579. https://doi.org/10.1080/10668926.2024.2336477
Teaching introductory ethics course or courses with strong ethics content to first- and second-year undergraduate students presents numerous challenges. Most students register for these courses to meet a general education requirement or believe they do not need education in ethics because they have received cultural, social, and religious instructions. Furthermore, many college and university administrators, employers, and policymakers confuse ethics with compliance and misunderstand their connection. In this context, this paper argues that undergraduate students can learn ethics subject content (e.g., metaethics, normative ethics, and applied ethics, etc.), attain course objectives, and apply their learning in professional and personal situations. Strategies used to prepare students for the Intercollegiate Ethics Bowl (IEB) competition have proven effective means of introducing and reinforcing ethics course content outside of the classroom setting. The qualitative data obtained from the respondents suggests that the methodology and strategies adopted to prepare students for ethics bowl competitions reinforced the ethical theory participants learned in courses where ethics content was prominent and led them to make rational and ethical decisions. These findings also suggest that strategies to prepare ethics bowl teams for the IEB competition can similarly impact non-ethics bowl team members in a traditional classroom setting.

Setyadi, A., Pawirosumarto, S., Damaris, A., & Dharma, R. (2025). **Risk management, digital technology literacy, and modern learning environments in enhancing learning innovation performance: A framework for higher education**. *Education and Information Technologies*, *30*(11), 15095-15123. https://doi.org/10.1007/s10639-025-13380-4
This study aims to explore the influence of risk management and digital technology literacy on learning innovation performance, with a particular focus on the moderating role of modern learning environments. The research employs a quantitative approach using data collected from 385 Indonesian university students, analyzed through Structural Equation Modeling-Partial Least Squares (SEM-PLS) to validate the proposed framework. The results demonstrate that effective risk management significantly enhances institutional adaptability and fosters success in implementing innovative learning strategies. Moreover, higher levels of digital technology literacy empower students to engage more effectively with modern learning technologies, leading to improved performance outcomes. The findings also highlight that the moderating effect of modern learning environments strengthens these relationships, underscoring the importance of robust digital infrastructure and adaptive pedagogy. This study provides theoretical contributions by integrating risk management, digital literacy, and innovation within the context of education. Practical implications include recommendations to optimize risk management frameworks, enhance digital literacy programs, and invest in modern learning ecosystems to support academic success and institutional resilience.

Shambare, B., & Jita, T. (2025). **A new era of learning: exploring science teachers' perceptions of virtual lab in rural schools**. *Education and Information Technologies*, *30*(11), 15185-15205. https://doi.org/10.1007/s10639-025-13412-z
Virtual learning technologies have become integral in education globally, with developed countries leading in implementation. In contrast, Global South countries like South Africa are only beginning to conceptualise Virtual Laboratory (VL) integration, with

limited practical implementation. This study underscores the importance of understanding teachers' perceptions of VL before deployment to minimise the risk of underuse or abandonment. Guided by the Technology Acceptance Model Davis (MIS Quarterly 13(3):319–340, 1989), this research employed a sequential explanatory mixed-methods approach. In Phase 1, 186 Life Sciences teachers from South Africa's Eastern Cape province participated in a survey and semi-structured interviews with four teachers in Phase 2. Data were analysed using descriptive statistics and thematic analysis. Findings reveal that teachers perceive VL positively and see potential benefits for rural education. The study also signals that intent alone may not lead to full adoption. This study contributes unique insights from rural teachers often absent in the broader technology adoption dialogue.

Shao, Y., Briggs, C. M., & Willis, A. (2025). **Student age and racial disparities in teachers' discipline evaluations**. *Social Psychology of Education*, *28*(1), 148. https://doi.org/10.1007/s11218-025-10112-x
Racial disparities in school discipline have been previously identified, with studies like Okonofua and Elberhardt (2015) using scenarios with minor infractions indicating the role of teacher racial bias in these disparities. In this research, we sought to replicate and extend their study by adding the age of the student (child vs. teen) as an additional variable. Two studies recruited teachers to participate in this mixed-method research. The quantitative part was a mixed design with race of the student in the scenario as the between-subject variable and age as the within-subject variable. The qualitative part asked teachers to provide the possible causes of racial disparities in school discipline. We failed to replicate the previously observed racial effect, nor did we find an interaction between student age and race. Teachers were more inclined to attribute racial disparities in school discipline to teacher-related factors rather than to student-related factors. The most common factor nominated was implicit racial bias.

Shi, W., & Shakibaei, G. (2025). **Insights Into the Effectiveness of Artificial Intelligence-Integrated Speaking Instruction in Enhancing Speaking Skills and Social–Emotional Competence as Well as Reducing Demotivation and Shyness**. *European Journal of Education*, *60*(3), e70174. https://doi.org/10.1111/ejed.70174
Despite the recognised importance of communicative competence in language acquisition, many English as a Foreign Language (EFL) learners persistently grapple with affective barriers such as speaking anxiety, shyness, and demotivation, alongside underdeveloped social–emotional competence (SEC), challenges that traditional speaking instruction methods have often struggled to comprehensively address. Consequently, this study aimed to investigate the influence of Artificial Intelligence (AI)-integrated speaking instruction on EFL learners' SEC, demotivation to speak, shyness, and speaking skill development, thereby addressing a crucial gap by evaluating a novel technological intervention. To achieve this, a quasi-experimental design was employed, allocating participants into an experimental group (EG) receiving AI-integrated speaking instruction and a control group (CG) engaging in traditional speaking instruction via the Big Blue Button platform; pre- and post-intervention data were collected using validated questionnaires for SEC, demotivation, shyness, and speaking development, supplemented by an attitude questionnaire for the EG. The results from a one-way MANOVA revealed statistically significant and positive outcomes for the AI-integrated approach, with learners in the EG demonstrating substantial improvements in their SEC and overall speaking skills, alongside a significant reduction in demotivation to speak and

shyness when compared to the CG, a finding corroborated by the EG participants' predominantly positive attitudes towards the AI intervention. These findings carry important implications for EFL pedagogy, suggesting that AI-integrated speaking instruction presents a more efficacious strategy for concurrently enhancing learners' speaking proficiency and fostering crucial social–emotional skills, thus providing empirical support for integrating AI tools to create more supportive and effective pathways for EFL students to overcome affective hurdles and improve their communicative abilities.

Shin, D. D., Park, S., Kim, J. A., Nagengast, B., & Bong, M. (2025). **Examining how teachers' characteristics impact student motivation and achievement across subject, school level, gender, and prior achievement level**. *Social Psychology of Education*, *28*(1), 145. https://doi.org/10.1007/s11218-025-10104-x
Teachers' characteristics can significantly influence the quality of student functioning. Yet, there has been little exploration regarding which attributes matter to which outcomes, and for whom, and under what conditions. In this study, we considered four characteristics as perceived by students, namely competence, student-centered instruction, closeness with students, and enthusiasm, and examined how they predicted students' self-efficacy, interest, and achievement. We also tested whether the predictive relationship differed by subject area (Korean vs. math), school level (middle school vs. high school), gender, and prior achievement. To address these questions, data from the Gyeonggi Educational Panel Study 2012 (GEPS 2012), which included responses from over 5,500 students in Grades 7 to 12, was subjected to two-level regression analyses. The results showed that the considered characteristics made significant differences in students' motivation and achievement across subjects and school levels, both independently and by interacting with the gender and prior achievement of students, even after controlling for their prior scores. More specifically, teachers perceived to be competent and relatable benefited all students across different contexts, although high-achieving students tended to reap even greater benefits from them. However, teachers' implementation of student-centered instructional strategies produced conflicting results as it enhanced the motivation of low-achieving students but hurt the achievement of high-achieving students. Our findings add to the existing literature on the effects of teacher characteristics and provide practical insights for teachers to tailor their support to diverse students in different learning contexts.

Shruthi, H. L., Radhakrishnan, A., Veigas, A. D., Railis, D. J., & Dinesh, R. S. (2025). **Analyzing pedagogy and education in English language teaching using information and communication technology**. *Education and Information Technologies*, *30*(12), 16551-16573. https://doi.org/10.1007/s10639-025-13439-2
Pedagogy and education in the English language have experienced a transformative impact with the integration of Information and Communication Technology (ICT). This dynamic combination has enhanced instructional strategies, fostered interactive learning environments, and equipped learners with essential digital literacy skills (DLS). Integrating ICT in English language teaching (ELT) can pose a challenge for teachers who lack proficiency in using these tools effectively, potentially leading to ineffective use of knowledge in the classroom. The study's novelty lies in revising the Technology Acceptance Model (TAM) for ICT in ELT, integrating multiple pedagogical approaches with modern ICT tools, and emphasizing simulated authenticity and AI to advance interactive and engaging language learning, thereby significantly contributing to effective language teaching through technology. The research on "Analyzing Pedagogy

and Education in English Language Teaching Using ICT highlights key gaps, including the impact of teachers' ICT proficiency, the need for longitudinal studies on ICT's effects, the underexplored effectiveness of specific ICT tools and pedagogical models, and the potential of AI for personalized learning experiences. The study analyzes the effectiveness of integrating ICT in ELT by examining how pedagogical approaches like GTM, TPR, Student-Centered Learning, Total Communication, and Interactive Approaches impact learning experiences, engagement, and digital literacy skills among 450 students from grades 6 to 12, divided into three grade levels (6–8, 9–10, and 11–12). The study uses a survey methodology with structured questionnaires and open-ended questions to collect quantitative and qualitative data on students' perceptions, experiences, and preferences regarding ICT integration in various teaching methodologies, assessing engagement, effectiveness, digital literacy, and learning outcomes. The collected data is analyzed using both quantitative methods, including descriptive statistics, cross-tabulation, and ANOVA to identify patterns and correlations, and qualitative methods, where open-ended responses are coded and thematically analyzed to gain insights into student experiences, providing a comprehensive understanding of how ICT integration in ELT influences pedagogy, teaching effectiveness, and learning outcomes. It helps to enhance ELT by implementing innovative pedagogical approaches with the support of ICT. The present study revises the Technology Acceptance Model (TAM) including the Grammar Transaction Method, Total Physical Response (TPR), Student-Centred Learning, Total Communication and Interactive Approaches. Pedagogy and Education in ELT using ICT enhances teaching effectiveness and engagement, fostering digital literacy and language proficiency among learners. The study is limited by the varying levels of ICT proficiency among teachers, potential biases in self-reported data from participants, and the lack of longitudinal analysis to fully assess the long-term impact of ICT integration in ELT. This should focus more clearly on the study's primary objective: analyzing ICT integration in ELT, its impact on pedagogy, and enhancing student engagement and digital literacy. The Future scope of Pedagogy and Education in ELT using ICT includes the integration of simulated authenticity and artificial intelligence to create immersive and personalized learning experiences, enabling students to enhance their language learning skills more interactively and engagingly.

Smith, P. S., & Myers, B. (2025). **Instructor experiences providing accommodations and modifications for students with intellectual disability in inclusive higher education**. *International Journal of Inclusive Education*, *29*(10), 1844-1857. https://doi.org/10.1080/13603116.2024.2305653

In recent years, with the passing of the Higher Education Opportunity Act (HEOA) of 2008, growing numbers of universities and colleges have provided inclusive post-secondary education (IPSE) opportunities to students with intellectual and developmental disabilities (ID). As universities and colleges welcome more students with ID into the classroom, there is a need to examine the experiences of these students and their instructors. Using semi-structured interviews with twelve university instructors who hosted students with ID in their courses, this qualitative study was conducted to examine instructors' experiences modifying course content and implementing accommodations for students with ID. Results indicate that instructors desire greater institutional support and training as they feel unsure about their ability to modify course content and accommodate students with ID. Instructors who identified as disabled demonstrated more skill and confidence providing modifications and accommodations for students with intellectual disability. Implications for practice are provided.

Song, Q., Li, M., Zhang, Z., & Zhou, Q. (2025). **Learning effectiveness of virtual technologies in chemistry using a three-level meta-analysis**. *Education and Information Technologies*, *30*(11), 14737-14759. https://doi.org/10.1007/s10639-025-13321-1
Chemistry is a natural science that explores the composition, structure, and transformations of matter. Technological innovations have transformed both teaching methods and learning processes. To explore the transformative potential of virtual technologies in chemistry education, this study conducted a meta-analysis to assess their impact on student learning effectiveness. Through literature search and screening, 29 studies were obtained, including 63 effect sizes and 3,347 participants. Due to the presence of multiple effect sizes in some studies, a three-level meta-analysis model was constructed. The results show that virtual technologies have a moderate positive effect on chemistry learning (g = 0.385, 95% CI [0.138,0.632]), indicating their significant impact on improving student learning outcomes in chemistry. These studies were also coded to examine the moderating effects of their characteristics (virtual form, educational stage, learning content, student grouping, and control group treatment) on outcome measures. The moderation analysis results reveal that the educational stage significantly moderates the effectiveness of virtual technologies, with secondary school students benefiting more than university students. While other moderating variables, such as virtual form (e.g., AR showing higher effectiveness), learning content (e.g., inorganic chemistry outperforming), student grouping (e.g., small groups of 2–4 students performing better), and control group treatment (e.g., virtual technologies demonstrating greater effectiveness compared to traditional instruction), were not significant, their observed trends suggest potential variations that warrant further investigation. These findings offer valuable guidance for integrating virtual technologies into chemistry education.

Soria, C. L., & Baguio, J. B. (2025). **Communication Aptitudes and Shared Association Structure of Teachers in Public Elementary Schools**. *Journal of Global Research in Education and Social Science*, *19*(3), 180-191. https://doi.org/10.56557/jogress/2025/v19i39470
This study described the communication aptitudes and shared association structure of public elementary school teachers in Paquibato District, Davao City. This study employed the universal sampling, using the non-experimental quantitative research design utilizing correlational method, the respondents of the study were the 134 teachers in public elementary school teachers, utilizing universal sampling. The statistical tools were the mean, Pearson Product Moment Coefficient Correlation (Pearson r) and regression analysis. The communication aptitudes and shared association structure of teachers was high. There was significant relationship between the communication aptitudes and shared association structure of public elementary school teachers. Moreover, the domains of communication aptitudes are significantly influence on shared association structure of public elementary school teachers. It is recommended that school administrators enhance teachers' communication aptitudes through targeted training programs. Strengthening these skills may further improve the shared association structure among public elementary school teachers.

Stan, M. M., Dumitru, C., & Bucuroiu, F. (2025). **Investigating teachers' attitude toward integration of ChatGPT in language teaching and learning in higher education**. *Education and Information Technologies*, *30*(11), 15281-15298. https://doi.org/10.1007/s10639-025-13396-w

Understanding teachers' perspectives is essential for successful technology adoption as technology plays an increasingly important role in education. The aim of this study is to explore the nuanced dynamics of using natural language processing models such as ChatGPT in higher education settings. Understanding the complexity of teachers' attitudes is crucial for the creation of supportive environments that enable them to embrace technology as a meaningful enhancement to language teaching. While chatbots have gained popularity in various fields, such as tourism and medicine, their use in the higher education sector, especially in Romanian universities, has not yet been sufficiently explored. The study consisted of a focus group with 15 teachers. This led to qualitative findings with practical implications for language teaching. The benefits of incorporating ChatGPT into language teaching, such as immediate correction, real-time practice and continuous learning, were found to have a positive impact on learning outcomes. In addition, the teachers found ChatGPT to be a valuable tool for organizing their work, providing an efficient means of managing language tasks and assessments, and contributing to a more efficient classroom process.

Sugiarto, E., Husain, A. H., & Rohidi, T. R. (2025). **How Is Interdisciplinary Study in Arts Education Conducted? Epistemological Reflections Towards Postgraduate Students' Research**. *European Journal of Education*, *60*(3), e70183. https://doi.org/10.1111/ejed.70183
This article investigates the profound impact of epistemological reflections on arts education research within postgraduate programmes at Universitas Negeri Semarang, Indonesia's leading institution in arts education. Recognising the unique ontological nature of arts education, the study emphasises the need for flexible research methods. Through qualitative analysis of doctoral and master's theses, the research uncovers key epistemological discourses, including subjectivity, interpretation and values in knowledge creation. Findings highlight the importance of a paradigmatic shift towards cross-disciplinary dialogue in arts education research. The study identifies the challenge of merging traditional scientific frameworks with the inclusive and multidimensional nature of art. Consequently, it proposes implications for postgraduate arts education programmes, advocating for methodological expansion, interdisciplinary inclusion and the development of responsive evaluation models. This research underscores the epistemological diversity within arts education research, ultimately benefiting student research development at the master's and doctoral levels.

Tarannum, T., Ahmed, R., Seraj, P. M. I., & Khan, T. S. (2025). **ELT Teachers' perception and usage of ChatGPT as a teaching tool in the Bangladeshi EFL context**. *Education and Information Technologies*, *30*(13), 19269-19295. https://doi.org/10.1007/s10639-025-13515-7
ChatGPT, developed by OpenAI, is the most buzzing word in academia recently. Due to its ability to provide instant language support and generate diverse educational resources, it has emerged as a powerful tool in ELT (English language teaching). This study aims to explore ELT teachers' perception and usage of ChatGPT as a teaching tool in the Bangladeshi EFL context. To do this, a concurrent mixed-method research design was employed using interviews and a survey questionnaire. 54 ELT teachers for the survey questionnaire, and 7 teachers interviewed participated from the department of English from 5 different private universities in Bangladesh. The results revealed that ELT teachers used ChatGPT for generating practice tasks, preparing question materials for quizzes or examinations, and providing automated feedback. The teachers highlighted several

benefits, such as saving time, having unlimited resources, and easy accessibility, while they noted students' overdependence and plagiarism, misinterpreted instruction, faulty information, and similar and repetitive structure and language as the potential drawbacks. The teachers opined that for using ChatGPT both teachers and students need proper training and ethical awareness. The findings bring forth valuable insights for teachers, students, and policymakers.

Tejada-Sánchez, I., & Molina-Naar, M. (2025). **English medium instruction practices in the internationalized university: The cases of Colombia and South Korea**. *International Journal of Educational Research*, *133*, 102654. https://doi.org/10.1016/j.ijer.2025.102654
This study examines English Medium Instruction (EMI) in higher education institutions in Colombia and South Korea. Using qualitative content analysis, data from professor interviews, classroom observations, and educational artifacts were analyzed through Kemmis' practice architecture and the ROAD-MAPPING frameworks. Findings reveal three practice configurations: Sayings (EMI within prospective academic communities), Doings (EMI embodying expanded disciplinary perspectives), and Relatings (EMI fostering rapport and adaptability). These categories illustrate EMI patterns across contexts, highlighting unique ecologies from institutional structures, pedagogy, and social relationships. The study underscores the importance of contextual approaches for effective EMI application and supports flexible language policies balancing English's global role with linguistic diversity. By integrating sayings, doings, and relatings with the ROAD-MAPPING framework, the analysis provides deeper insights into EMI practices in international higher education.

Tekcan, Z. Ş., Geçer, A., & Topal, A. D. (2025). **An investigation of the factors affecting faculty members' readiness for online teaching using chi-squared automatic interaction detection (CHAID) analysis**. *International Review of Education*, *71*(4), 655-683. https://doi.org/10.1007/s11159-025-10139-4
In order to plan and conduct more effective and efficient online teaching studies, it is important to determine how ready faculty members are for online teaching, what they can contribute to online teaching studies, and what their perspectives on online teaching are. In this study, the readiness of faculty members who teach distance education courses towards online teaching was analysed using chi-squared automatic interaction detection (CHAID) or "decision tree" analysis. This research is descriptive in nature. The authors used a "survey model" to determine the readiness of faculty members towards distance education. Participants comprised a total of 133 faculty members with different titles who taught distance education courses at a state university in Türkiye in the 2020–2021 academic year. The research showed that the faculty members' ability to use technology in online teaching was very high, their perceptions of online teaching were at a moderate level, and their perceptions of social bonding and student engagement were positive. Increased access to web resources reduced the need for help, and those who used learning management systems (LMS) in face-to-face education could more easily transfer these skills to online exams. This had a positive effect on faculty members' perceptions of online teaching. Conversely, faculty members who had no previous online teaching experience tended to perceive it more negatively. This study is important because it sheds light on the factors affecting faculty members' readiness for distance education. The results of this study suggest that an online learning environment that takes into account faculty members' circumstances and makes the

necessary preliminary preparations is likely to increase the success and quality of their contributions to online learning.

Tilak, S., Gumpert, M., & Myers, T. A. (2025). **Effects of technology-mediated professional development on special education teacher collective efficacy**. *Education and Information Technologies*, *30*(12), 16487-16513. https://doi.org/10.1007/s10639-025-13432-9
This mixed methods study investigates whether technology mediated collaborative practices during a professional development (PD) session led to growth in the collective efficacy of 21 special education teachers at an independent 1–12 school in Southeastern Virginia. This school specializes in individualized instruction for students with learning differences not limited to Autism Spectrum Disorder, Attention Deficit Hyperactivity Disorder, Specific Learning Disability, and their comorbidities. Teacher collective efficacy, which subsumes cohesive perceptions of classroom learning and behavior management, has been shown as strongly related to student achievement and healthy school culture. Mastery experiences with specific tasks related to teaching and learning can spur collective efficacy. Cutting-edge technologies (Vibe and Newline collaborative all-in-one hardware and software interfaces) were used to engage teachers in an interdisciplinary vision boarding activity to outline academic, social, and technological goals within and across subject areas. Teachers also engaged in a behavior management reflection exercise. Pre- and post-survey analysis was conducted using a paired samples t-test, showing overall growth in collective efficacy after the brief PD session. Regression analyses revealed that technology savvy teachers grew most in collective efficacy. Network analysis of vision board output and a descriptive analysis of the behavior management surveys showed that teachers became united in interdisciplinary goals for learning, and in strategies for behavior management through conversational practices.

Tran-Duong, Q. H., & Nguyen, D.-T. (2025). **Enhancing Engagement in Pre-Service Primary School Teachers: Which Teaching Style Should Teacher Educators Adopt?** *European Journal of Education*, *60*(3), e70145. https://doi.org/10.1111/ejed.70145
As a key aspect of pedagogical competence, lecturers' teaching style significantly impacts the behavioural changes in students, especially student engagement. The research on the impact of teaching style on primary teacher education students' engagement, however, contains very little data. Using the three-factor structure of student engagement and Grasha's teaching style model, the present study carried out a crucial inquiry into the relationship between the teaching style of lecturers and the engagement of primary teacher education students. The 1229 responses from sophomore, junior, and senior students were subjected to a MANCOVA to evaluate the research model. The findings demonstrated that primary teacher education students' levels of engagement vary greatly depending on the various teaching styles that their lecturers have used. Lecturers must deliberately choose and modify their teaching styles to enhance the engagement of primary teacher education students.

UNICEF. (2025). ***Building on Foundations: Strengthening teacher deployment for improved foundational learning*** (p. 62). Consulté à l'adresse UNICEF website: https://www.unicef.org/innocenti/media/11361/file/UNICEF-Innocenti-T4A-The-Gambia-Report-2025.pdf

van de Kuilen, H. S., Altinyelken, H. K., Voogt, J. M., & Nzabalirwa, W. (2025). **Teacher agency in the context of pedagogical reform in Rwanda**. *International Journal of Educational Research*, *133*, 102695. https://doi.org/10.1016/j.ijer.2025.102695
Learner-centred pedagogy (LCP) has been adopted in many low- and middle-income countries, including Rwanda, to enhance education quality. However, studies on educational reform often overlook teacher agency. This paper addresses that gap by examining primary and secondary teachers' agency in Rwanda's pedagogical reform. Findings show that all teachers believed in LCP and their capacity to implement it. Social and organizational structures in secondary schools were more supportive of agency than in primary schools. The study highlights the critical role of teacher agency in shaping the success or failure of educational reform initiatives.

Vasconcelos, L., Arslan-Ari, I., Miller, B., & Gonzalez-Tapia, R. (2025). **Robotics in early childhood STEM education (REC-STEMEd): The impact on preservice teachers' attitudes and intentions toward computational thinking**. *Education and Information Technologies*, *30*(13), 18347-18374. https://doi.org/10.1007/s10639-025-13529-1
There is a large disconnect between the increasing need for computer science education in K-12 schools and the preservice teacher training provided. Consequently, preservice teachers may graduate feeling unprepared to infuse computer science concepts such as computational thinking (CT) into their teaching. To address this, we created Robotics in Early Childhood STEM Education (REC-STEMEd), a module that infuses computational thinking, robotics, and science content into an early childhood teacher education methods course. This study investigated changes in early childhood preservice teachers' (n = 39) attitudes toward learning to teach CT and their intentions to teach CT. Findings revealed a statistically significant increase in participants' positive affection and positive cognition, and a significant decrease in negative cognition toward learning to teach CT. A moderate but not significant decrease was found in their negative cognition. Moreover, participants reported moderately positive attitudes, subjective norms, perceived behavioral control, and intentions toward teaching CT in the future.

Verdon, R. (2025). **Les pratiques d'enseignement en petite section de maternelle pour l'acquisition des premiers outils mathématiques à l'école en 2021**. *Note d'Information*, (25.50), 1-4. Consulté à l'adresse https://www.education.gouv.fr/les-pratiques-d-enseignement-en-petite-section-de-maternelle-pour-l-acquisition-des-premiers-outils-451115
L'enquête nationale sur les pratiques d'enseignement en petite section de classe maternelle constitue l'un des trois volets du dispositif d'enquêtes associé au nouveau Panel qu'a lancé la direction de l'évaluation, de la prospective et de la performance (DEPP) à la rentrée 2021.

Verpoorten, D., Delfosse, C., Doppagne, V., & Schoenaers, F. (2025). **Perceptions de l'IA à l'université : une enquête sur les outils, pratiques et postures pédagogiques**. *Revue internationale des technologies en pédagogie universitaire*, *22*(1). https://doi.org/10.18162/ritpu-2025-v22n1-09
L'article rend compte des réponses de 404 enseignants et enseignantes d'une université francophone belge à un questionnaire portant sur l'entrée de l'intelligence artificielle dans leurs pratiques. L'enquête montre qu'il s'agit bien d'un phénomène total, car il ébranle plusieurs dimensions pédagogiques, génère à leur sujet des positionnements

contrastés et se répercute de façon similaire dans les trois secteurs disciplinaires dont sont issues les personnes répondantes.

Vo, H., Turner, D., Lynch, D., Forrester, D., Yeigh, T., McCarthy, L., & Casey, T. (2025). **Understanding Early Career Teacher Instructional Quality: A Person-Centred Approach**. *European Journal of Education*, *60*(3), e70168. https://doi.org/10.1111/ejed.70168
The instructional quality of early career teachers is an important area of research that has potential to inform policy and practice. However, earlier research on this topic is primarily concerned with examining the relationship between early career teachers and their instructional quality. This study took a person-centred approach to examining instructional quality profiles of early career teachers and relevant correlates. Data analysis conducted on a sample of 712 early career teachers in Australia revealed five distinct profiles of instructional quality: a laissez-faire profile, a controlling profile, a low instructional clarity profile, a high instructional clarity profile and an exemplar profile. Teacher self-efficacy and formal mentorship were found to be significant predictors of teacher membership in these five profiles. The findings offer important implications for early career teacher education and teacher professional development.

Vu, N.-T. T., Dinh, H.-V. T., Ha, X. V., Nguyen, H. T., Vu, B. D., Dinh, P.-L. T., … Nguyen, V. T. (2025). **Professional Learning Communities, Teacher Self-Efficacy and Instructional Practices in Vietnamese Lower Secondary Schools**. *European Journal of Education*, *60*(3), e70178. https://doi.org/10.1111/ejed.70178
Teacher professional learning communities (PLCs) have received extensive research attention due to their important role in teacher professional development and classroom practices. However, research aiming to explain the underpinning mechanisms of how PLCs foster teacher instructional practices is limited. Against this backdrop, this study examined the possible mediating role of teacher self-efficacy in the relationship between PLCs and teacher instructional practices. This study was conducted in two major cities in Vietnam, using a convenience sampling method. The data included questionnaires completed by 566 lower secondary school teachers. The data were analysed using SPSS Statistics 26.0 and Mplus 8.8 software. Structural equation modelling results revealed that teacher self-efficacy mediated the relationship between PLCs and all three components of teacher instructional practices, namely, clarity of instruction, cognitive activation and classroom management. Notably, teachers who had less than 10 years of teaching experience tended to outperform their more experienced counterparts in promoting clarity of instruction and cognitive activation. Limitations and pedagogical implications of this study are discussed.

Wang, G., & Bai, H. (2025). **Harnessing the power of distributed leadership: Promoting Chinese teachers' ICT use in instruction through a chain-mediated model of teacher collaboration and ICT self-efficacy**. *Education and Information Technologies*, *30*(13), 18799-18817. https://doi.org/10.1007/s10639-025-13532-6
Principal leadership plays a crucial role in promoting teachers' use of information and communication technology (ICT) in instruction. This study aimed to examine the relationship between principals' distributed leadership and teachers' ICT use in instruction, as well as the mediating role of teacher collaboration and ICT self-efficacy. The study analyzed data from the TALIS 2018 database, which included 2,977 Shanghai junior high school teachers, using PROCESS Model 6 and the bias-corrected percentile Bootstrap method. The results showed that (1) distributed leadership was significantly and

positively associated with teacher collaboration, teachers' ICT self-efficacy, and ICT use in instruction. (2) Teacher collaboration and ICT self-efficacy independently mediated the relationship between distributed leadership and teachers' ICT use in instruction. (3) Teacher collaboration and ICT self-efficacy played a chain-mediating role between distributed leadership and teachers' ICT use in instruction. These findings deepen our understanding of the underlying mechanisms through which distributed leadership facilitates teachers' ICT use in instruction. It addresses the theoretical and empirical gaps in the existing literature on the impact of distributed leadership on teachers' ICT use and offers concrete practical suggestions for improving distributed leadership and promoting teachers' effective ICT use.

Wang, W., Khasawneh, M. A. S., Sarabani, L., & Ismail, S. M. (2025). **Investigating the Influence of Positive Classroom Management Strategies on Academic Buoyancy, Academic Engagement, Psychological Well-Being and Language Achievement: Visions From EFL Learners**. *European Journal of Education*, *60*(3), e70149. https://doi.org/10.1111/ejed.70149

This study examined the impact of positive classroom management techniques on language learners' academic buoyancy, engagement, psychological well-being and language achievement. Grounded in the theoretical framework of positive psychology, the research adopted a concurrent mixed-methods design, combining qualitative interviews with quantitative assessments to provide a comprehensive understanding of the phenomenon. The study involved 50 lower-intermediate language learners aged 18 to 23, who were randomly assigned to either an experimental group or a control group. The experimental group was exposed to positive classroom management interventions, while the control group participated in traditional teacher-fronted sessions. The qualitative findings revealed that positive classroom management strategies significantly enhanced the EFL learners' academic buoyancy, engagement and psychological well-being. Furthermore, the quantitative outcomes demonstrated a statistically significant improvement in academic achievement among the experimental group, with these learners outperforming their counterparts in the control group on posttest measures. These results offer valuable implications for EFL teachers, materials developers, syllabus designers and policymakers, emphasising the importance of integrating positive classroom management strategies into educational practices and policies to foster holistic learner development.

Wang, X. (2025). **Students' perceptions of automated writing evaluation in autonomous learning**. *Education and Information Technologies*, *30*(11), 14703-14735. https://doi.org/10.1007/s10639-025-13378-y

Automated writing evaluation (AWE) provides an instant and cost-effective alternative to human feedback in assessing student writing, and therefore is widely used as a pedagogical supportive tool in writing instruction. However, studies on how students perceive the usage of AWE as a surrogate writing tutor in out-of-class autonomous learning are rare. This study employs a convergent parallel mixed methods approach to explore how students perceive the effects of an AWE program, iWrite, in autonomous learning context. The subjects of the current study are 146 non-English major undergraduates at a public university in China. The findings indicate that students are overall satisfied with using iWrite as a surrogate writing tutor with minimal human facilitation in autonomous learning. They are willing to make repeated revisions to their writing based on the feedback from the automated writing tutor. The results also suggest

that the accessibility of AWE tool in out-of-class use could enhance learner autonomy, as students exhibit increased engagement and improved self-regulation following the 16-week intervention. Students perceive iWrite's language-based feedback very positively, but their perceptions of content-based feedback from iWrite are comparatively negative. Findings have implications for the implementation of AWE in autonomous learning as well as the design of AWE systems in education setting.

Wang, Y., & Kale, U. (2025). **Unplugged activities to support preservice teachers' competence, interest, and utility value on computational thinking: A mixed-method inquiry**. *Education and Information Technologies*, *30*(13), 19075-19109. https://doi.org/10.1007/s10639-025-13552-2
Computational thinking (CT) has been increasingly recognized as a vital skill for fostering students' problem-solving and digital literacy. Preparing and motivating preservice teachers (PSTs) to effectively teach CT is, therefore, essential. Grounded in expectancy-value theory, this mixed methods research explored the impact of a workshop using unplugged activities on PSTs' (N = 39) motivation on CT during a science methods course. The analysis of the responses to the survey items revealed significant improvements in PSTs' competence and interest. The follow-up interviews highlighted that, due to the unplugged activities, PSTs were able to reduce stress, enhance their understanding, and connect CT to daily life, which increased their competence and interest in teaching CT. These findings extend the application of expectancy-value theory by demonstrating how unplugged activities can positively influence PSTs' motivation to teach CT. The study underscores the importance of incorporating accessible, hands-on activities into teacher preparation programs to support PSTs in advancing CT education in classrooms.

Wiese, E., & Nortvedt, G. A. (2025). **Migrant students' experiences with and perceptions of assessment in Norwegian lower secondary schools**. *International Journal of Inclusive Education*, *29*(11), 2049-2063. https://doi.org/10.1080/13603116.2024.2337056
This study explored how 12 lower secondary school students with migrant backgrounds experienced and perceived assessment in Norwegian lower secondary schools. Interviews were conducted to understand their perceptions of assessments, of the feedback they received through these assessments, and of the ways in which their teachers adapted assessments and assessment situations to meet their individual needs. The students reported diverse experiences with the assessment criteria and formats and explained how their teachers' adaptions made in the assessments and assessment situations helped them demonstrate their competence and made them feel included. The assessment aspects they perceived as challenging included demonstrating their knowledge using the language of instruction, understanding how to participate and using assessment to further learning. Our findings suggest that teachers must develop students' assessment literacy by actively teaching them how to demonstrate their knowledge and understanding through classroom participation and by explaining how feedback can improve their learning. Such actions will also help make assessment practices more inclusive and equitable.

Wu, M. L., & Zhou, Y. (2025). **Strengthening teachers' STEM preparedness through a technology integration online course**. *Education and Information Technologies*, *30*(12), 17191-17206. https://doi.org/10.1007/s10639-025-13479-8
The importance of technology education during teacher preparation and in-service professional development is paramount as it faces the challenge of adequately

equipping teachers with sufficient level of STEM preparedness so they would be able to educate our next generation of students effectively in the subject areas of science, technology, engineering, and mathematics. In this quantitative survey study, 59 in-service teachers enrolled in an online summer technology integration course completed a pre and post survey. Finding of the study revealed that after course-taking, no gender difference was found and participating teachers' perceived value of implementing STEM education for K-3 grades increased, teachers' self-efficacy on teaching STEM courses in K-3 grades improved, and teachers' STEM pedagogical knowledge was strengthened. Overall, these teachers' confidence in teaching STEM areas trended upward after taking the online course, rendering them more STEM preparedness in future teaching of these subject areas. Implication of the study included the need for implementing early STEM education in K-3 grades and the continuing necessity to upholster teachers' STEM preparedness through venues of in-service professional development.

Xiao, J., Chen, M., Yang, Y., & Liu, M. (2025). **An exploratory multimodal study of the roles of teacher-student interaction and emotion in academic performance in online classrooms**. *Education and Information Technologies*, *30*(11), 15507-15527. https://doi.org/10.1007/s10639-025-13426-7
Teacher-student interaction is critical for providing learners with support and maintaining effective communication during the teaching process. The online teacher-student interaction mode, has posed challenges to the effectiveness of online classes. However, how to conduct effective interaction in online classes to improve learning outcomes remains unclear. This study used multimodal data analysis of platform behavior and emotional data to investigate the impacts of teacher-student interaction and emotions on students' academic performance in an online classroom setting. Findings indicate that adult learners' interactive behaviors, particularly the number of podium appearances and the number of rewards received, positively affect their quiz performance in real time. Additionally, negative emotion frequency collected within a time window shorter than the entire online class was positively correlated with quiz performance. The preliminary results of this study inspire and guide teachers in understanding classroom dynamics and optimizing the teaching process effectively and promptly.

Xiao, J., Yang, Y., & Li, M. (2025). **Empirical study on the feasibility of hybrid-flexible training model for developing teachers' artificial intelligence competence**. *Education and Information Technologies*, *30*(12), 16835-16860. https://doi.org/10.1007/s10639-025-13460-5
Artificial intelligence (AI) education empowers teachers to enhance the educational process. Although conventional face-to-face or fully online training methods each have their strengths, they do not fully address challenges such as the rapid pace of AI advancements, differences in teachers' ability to grasp AI knowledge, and the need for flexible scheduling. The hybrid-flexible (HyFlex) teaching approach integrates the benefits of both methods and offers new possibilities for AI training for teachers. However, in-depth research on the practical impacts and implementation pathways for this model in AI teacher training is limited. To address this gap, we explored three key questions: (1) how to implement HyFlex in AI teacher training; (2) teachers' engagement and satisfaction in AI training and the corresponding learning outcomes; and (3) how engagement influences teachers' satisfaction and AI competence. Specifically, we developed a HyFlex teacher training model aimed at enhancing teachers' AI

competence and evaluated its effectiveness in a practical application. The results indicate that (1) The flexibility of HyFlex resulted in higher teacher engagement in the AI course training process, contributing to higher learning outcomes and higher teacher attitudes towards the HyFlex model. (2) The flexibility of learning styles and times in HyFlex implementation and the reusability of AI learning materials help to accommodate teachers from different educational backgrounds. (3) Emotional engagement significantly influences training satisfaction and AI competence in AI teacher training. This study provides valuable insights for future practical applications in AI teacher training and the dissemination of the HyFlex model.

Xu, Y., Zhang, Z., & Lai, C. (2025). **Culture-DPACK: A TPACK scale for evaluating Chinese language teachers' perceptions of integrated literacies**. *Education and Information Technologies*, *30*(13), 19329-19361. https://doi.org/10.1007/s10639-025-13538-0
This study introduces the development and validation of the Culture-DPACK scale, a refined assessment tool designed to evaluate Chinese language (CL) teachers' perceptions of their competencies in integrating digital and cultural literacies into their teaching practices. Acknowledging the increasing integration of digital technologies in education, the Culture-DPACK scale addresses the need for a comprehensive framework that captures the interplay of digital, pedagogical, and cultural literacies in language education. Using a mixed-method exploratory sequential design, we collected qualitative data from thematic seminars (n = 91) to inform the initial scale development. Subsequently, a quantitative survey was conducted with 556 CL teachers to validate the scale. The analysis identified five key dimensions: Intrinsic Knowledge Literacy (IKL), Traditional Pedagogical Literacy (TPL), Digital Literacy (DL), Digital Humanities Pedagogical Literacy (DHPL), and General Cultural Literacy (GCL). Reliability and validity analyses supported the robustness of the scale, with Confirmatory Factor Analysis (CFA) confirming strong model fit. The Culture-DPACK scale provides educators and researchers with a reliable and valid instrument to assess teachers' competencies in integrating disciplinary knowledge, traditional and digital humanities pedagogy, digital skills, and cultural literacy into their instructional practices. Its application provides insights for designing targeted professional development programs and informs instructional strategies, addressing the evolving demands of contemporary education. By examining the interactions among multiple integrated literacies, this study advances educational technology research and supports sustainable teaching practices in digitally and culturally enriched learning environments.

Yaban, E. H., Heikamp, T., & Gaschler, R. (2025). **The gender-specific inter-role conflict and academic well-being in distance education: The mediating role of developmental regulation processes**. *International Journal of Educational Research*, *133*, 102690. https://doi.org/10.1016/j.ijer.2025.102690
Distance education offers learners the flexibility to choose when, where, and how they study, enabling them to pursue academic goals alongside work, family, and other responsibilities. Yet, this flexibility often requires greater self-regulation. Bidirectional inter-role conflicts—such as those between university and family or university and work—can undermine academic well-being in this context. Developmental regulation processes, including meta-regulation, goal engagement, and goal disengagement, provide a valuable framework for navigating these challenges. The current two-wave longitudinal study examined the mediating role of developmental regulation in the relationship between inter-role conflicts at the beginning of the semester (Time 1 [T1]) and academic

well-being three months later (Time 2 [T2]) among 200 distance education students (76.5% women) aged 18-73 (M = 35.10; SD = 12.60). Concerning inter-role conflicts, a 2 (gender) × 4 (resource conflicts) repeated-measures ANCOVA revealed a significant interaction. Women reported more university-family conflict than the other conflict types (i.e., family-university, work-university, and university-work conflict), while men reported more work-university conflict. Across genders, university-work conflict was perceived as the least intense. Structural equation modeling (SEM) revealed that inter-role conflicts at T1 were negatively related to academic well-being at T2, whereas developmental regulation at T1 was positively associated with later academic well-being. On the one hand, the results highlight gender differences in how students experience inter-role conflict. On the other hand, developmental regulation partially mediated the relation between resource conflicts and academic well-being, emphasizing its role in supporting distance education students navigating competing demands and maintaining academic well-being, regardless of gender.

Yan, Y., & Zhang, J. (2025). **Exploring the Interplay of Academic Resilience, Cognitive Appraisals of GenAI, and Academic Engagement Among Pre-Service Chinese as a Foreign Language Teachers**. *European Journal of Education*, *60*(3), e70202. https://doi.org/10.1111/ejed.70202
This study examines the impact of academic resilience on the engagement of Chinese as a foreign language (CFL) pre-service teachers amid the disruption caused by generative AI (GenAI). Using the Conservation of Resources theory as a foundation, we suggest that resilience helps reduce vulnerabilities by influencing how GenAI is perceived—either as a challenge or an obstacle. Data from 365 CFL pre-service teachers were analysed using structural equation modelling. The findings show a strong direct effect of resilience on engagement (β = 0.542) and reveal two pathways: resilience increased challenge appraisals (β = 0.179) and decreased hindrance appraisals (β = −0.228). Although challenge appraisals had a weak positive effect on engagement (β = 0.100), hindrance appraisals had a significantly stronger negative impact (β = −0.257). Notably, resilience fostered engagement primarily by reducing hindrance appraisals (mediated β = 0.058), while the challenge pathway was not significant. The model accounted for 45.6% of the variance in engagement, highlighting both the disruptive potential of GenAI and the systemic vulnerabilities of pre-service teachers. The results suggest that resilience interventions should focus on alleviating AI-related threats, such as career anxieties, rather than emphasising perceived opportunities. This study redefines resilience as a crucial protective factor for educators facing AI-driven transitions, calling for pedagogical approaches that address technological disruptions as both psychological and professional challenges.

Yavuz Temel, G., Barenthien, J., & Padubrin, T. (2025). **Using Jupyter Notebooks as digital assessment tools: An empirical examination of student teachers' attitudes and skills towards digital assessment**. *Education and Information Technologies*, *30*(13), 18621-18650. https://doi.org/10.1007/s10639-025-13507-7
The integration of different technologies for formative assessment activities into the classroom is very important for the effectiveness of learning and teaching processes. This study is an experimental study in which the student teachers designed jupyter notebooks as formative assessment activities for specified aims and subject contents. For this purpose, student teachers were enabled to design various formative assessment activities with various packages that were developed with the open-access

programming languages included in the jupyter notebooks and external applications that were integrated into the jupyter notebooks. We measured the differences in student teachers' self-efficacy beliefs and attitudes towards the design of jupyter notebooks for formative activities before and after the implementation with questionnaires. According to the results of the study, we found positive and statistically significant differences in the self-efficacy beliefs and attitudes of student teachers from various disciplines who participated in the seminar. During the practical activities, we observed student teachers' prejudices and concerns about programming. This process was accompanied by their lack of prior knowledge and prejudices about the open source programming. Despite the difficulties in the learning process, the student teachers designed and developed various jupyter notebooks for different formative assessment activities at the end of the semester.

Yi, W., Huang, X., Kuzmin, S., Gerasimov, I., & Luo, Y. (2025). **Seekg: Sentiment analysis for E-Learning evaluation incorporating knowledge graphs**. *Education and Information Technologies*, *30*(12), 16291-16320. https://doi.org/10.1007/s10639-025-13456-1
This study proposes a knowledge graph-based big data analysis model for course quality evaluation, aiming to address issues in online education course evaluations such as semantic bias, grammatical deficiencies, vocabulary limitations, false evaluations, information distortion, and imbalanced evaluation categories. The model incorporates three innovative strategies: topic modeling sentiment scoring, sentiment label correction, and comprehensive course quality evaluation. It extracts topics from massive course data, integrates sentiment labels through knowledge graph embedding, employs optimal classifier sequences for predicting course indicators, and utilizes game theory calculations to obtain global importance values. Experimental results demonstrate that our model outperforms existing methods: compared to XGBoost, accuracy and macro-F1 scores increased by 3.21% and 4.86%, respectively, on the China University MOOC dataset; compared to Naive Bayes, they improved by 4.31% and 3.35% on the Coursera dataset. The model also performed well on imbalanced NetEase Cloud Classroom and Udemy datasets, confirming its generalizability and robustness. This study provides strong technical support for improving online teaching quality and educational decision-making.

Yılmaz Virlan, A., & Tomak, B. (2025). **AI tools for writing: a Q-method study with Turkish instructors of English**. *Education and Information Technologies*, *30*(12), 16997-17021. https://doi.org/10.1007/s10639-025-13455-2
This research aimed to determine the perspectives of Turkish instructors of English on the use of AI tools by Turkish learners of English on their writing skill development given the increasing prevalence of these tools among language learners. Thus, the perspectives of the instructors of these learners are significant in this sense. In this study, we used a Q-methodological approach to question 40 instructors from a state university in Istanbul about the issue. Upon the completion of Q-set grid, we conducted interviews with 5 participants to gain a deeper understanding of their perspectives on the use of AI by students for writing improvement. The preliminary results showed that participant instructors were both optimistic and pessimistic about the use of AI tools to improve the writing skills of their students, as they accepted that AI tools facilitated the learning process of the students by lessening the workload of the instructors, though they were unsure of the consequences as they might lead to outputs that are less authentic and creative by the learners. The participants also brought up some ethical concerns,

including plagiarism. Based on the findings, practical policy implications have been proposed, while acknowledging the study's limitations and offering directions for future research.

Zhamalashov, A., Courtney, M. G. R., Olzhayeva, A., Bauyrzhanova, A., & Kalemeneva, D. (2025). **The role of student–teacher college practicum experience on teaching self-efficacy, belief in the profession, and intention to teach in Kazakhstan**. *Asia Pacific Education Review*, *26*(3), 827-838. https://doi.org/10.1007/s12564-025-10059-w
In post-Soviet Kazakhstan, the increasing youth population, shortage of teachers, and low levels of novice teacher retention constitutes an impending national crisis. While the country attempts to resolve this issue by improving the status of the profession vis-à-vis improved pay and conditions, little empirical work has focused on evaluating the role that teacher training has on improving the supply of quality teachers. The study at hand contributes to this under-researched area by focusing on the role of the student–teacher practicum experience. Based on an online response-driven sampling approach, this study draws upon 213 student-teachers from 16 institutions in Kazakhstan. Descriptive statistics reveal that student-teachers were, on average, only slightly to moderately satisfied with their practicum experience with most of the variance in satisfaction existing within-institutions. Using structural equation modeling, we find evidence that the quality of the practicum experience is a major driver of student–teacher self-efficacy, belief in the profession, and intention to work in the profession. We conclude that teacher training institutions in the country should prioritize improving student-teachers' general practicum experience by offering structured and authentic teaching experiences, adequate feedback, and support from experienced teachers. Future research directions are also offered.

Zhang, L., Jiang, Q., Xiong, W., & Zhao, W. (2025). **Evaluating the quality of digital education resources based on learners' online reviews through topic modeling and opinion mining**. *Education and Information Technologies*, *30*(11), 15207-15230. https://doi.org/10.1007/s10639-025-13407-w
This study scientifically assessed digital education resources to determine how to develop these materials effectively. Data were obtained from the Smart Education Platform of China for higher education. Particularly, this research examined online reviews from learners who have used resources in various subjects, including music and art, humanities and social sciences, education and teaching, medical and health, computer science, and economic management. Then, topic modeling was applied to identify the important factors that influence the quality of digital education resources. Results show that content organization and language expression are the most pertinent dimensions, followed by knowledge explanation, teaching materials, and learning evaluation. Meanwhile, resource adaptability, teaching media, strategies, interaction, expansion of resources, learning experience, learning effectiveness, resource renewal, and teacher characteristics have a relatively limited influence on resource quality. This study also employed opinion mining, which revealed that digital education resources have the highest outcomes in the areas of learning effectiveness, teaching strategies, teacher characteristics, and resource adaptability. Meanwhile, these resources have the poorest results in learning evaluation, teaching media, and resource renewal. Furthermore, results revealed that music and art resources have the best quality among all types of digital education resources. By contrast, resources for computer science and economic management have relatively poor quality. This study ultimately presents a viable

approach for evaluating digital education resources, which can then be used to offer practical guidance on raising the quality of digital education resources across various subjects.

Zhang, Y. (2025). **Exploring the Role of AI-Mediated L2 Education in Chinese EFL Teachers' Classroom Rapport With Their Students**. *European Journal of Education*, *60*(3), e70142. https://doi.org/10.1111/ejed.70142
In recent years, an increasing body of research has reported the contributions of artificial intelligence (AI) technologies to various aspects of second/foreign language (L2) education. However, there is a shortage of evidence on the interplay of AI and teacher-student classroom rapport. To fill this void, this study used a qualitative design through a semi-structured interview with a sample of 35 Chinese EFL teachers to examine their perceptions about the role of AI-mediated L2 instruction in teacher-student classroom rapport. The results of the thematic analysis showed that the inclusion and integration of AI tools in L2 classes had affected teacher-student classroom rapport in six areas through 'making students happier and interested in learning', 'granting students agency and autonomy in the classes', 'adding vitality and joy to classroom relations', 'reducing teacher-student distance', 'establishing an atmosphere of trust in the class', and 'making teacher-student communication borderless and limitless'. Each finding is separately and comprehensively discussed and implications, at theoretical and practical levels, are provided for EFL teachers and teacher educators regarding the impact of AI technologies on L2 classroom rapport and relationships.

Zhao, J., Li, X., & Liao, H. (2025). **A context-specific analysis of translation technology usage behavior among college EFL students: Insights from the UTAUT2 model**. *Education and Information Technologies*, *30*(12), 16515-16549. https://doi.org/10.1007/s10639-025-13454-3
In an increasingly globalized world, translation technologies are critical in facilitating language comprehension and translation performance, especially among college EFL students. Despite their potential, the factors impacting their actual use in tertiary education remain underexplored. This study employs the UTAUT2 model to identify determinants affecting the usage behavior of translation technologies among this demographic. A validated questionnaire was distributed to 554 EFL students from six universities who had coursework involving translation technologies. The analysis used SPSS 27 and SmartPLS 4, focusing on descriptive statistics and PLS-SEM to evaluate the measurement and structural models. The study found that performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, and habit significantly impacted behavioral intention to use translation technologies. Facilitating conditions, habit, and behavioral intention significantly affected actual use behavior. The model demonstrated substantial explanatory power, with R2 values of 0.746 for behavioral intention and 0.598 for use behavior. Control variables, including gender, age, and experience, demonstrated no significant impact on use behavior. This investigation pioneers the application of the UTAUT2 model to translation technologies in tertiary education. The results offer theoretical and practical insights for educators, policymakers, and technology developers to improve translation technology adoption and efficient use in educational settings.

Zhou, J., & Wong, J. L. N. (2025). **Student teacher learning in school-university partnerships: A systematic review**. *International Journal of Educational Research*, *133*, 102692. https://doi.org/10.1016/j.ijer.2025.102692
School-university partnerships provide essential environments in which student teachers (STs) learn to teach. Despite the increasing number of studies conducted within the partnership contexts, the impact of partnership practices on STs' learning processes or outcomes has not been examined in a systemic way. Drawing on growing empirical evidence, this systematic review synthesized findings from 67 articles published in peer-reviewed journals between 2011 and 2024. We found that three interconnected levels of partnership interventions – the program & partnership level, the curriculum & pedagogy level, the activity & tool level – were simultaneously applied by teacher educators in the selected studies; we also identified changes in STs' dispositions and beliefs (knowing why), knowledges and understandings (knowing what), and performances and skills (knowing how). Based on the findings, a framework for understanding STs' learning in partnership contexts is further delineated, with implications for policymakers, practitioners, and researchers.

Zhou, T., Djonov, E., & Chik, A. (2025). **Shared reading of picturebooks for supporting preschool children's multilingual learning: A scoping review**. *International Journal of Educational Research*, *133*, 102716. https://doi.org/10.1016/j.ijer.2025.102716
The shared reading of picturebooks, a practice in which an adult reads and talks about a picturebook with one or more children, has been well-documented for its potential to promote children's early language development. The past two decades have witnessed increased scholarly attention on shared reading with multilingual children, yet the potential of this practice to facilitate children's multilingual learning, or their learning of two or more languages, remains under-investigated. This scoping review examined 19 empirical articles on the shared reading of picturebooks to support preschool-aged children's multilingual learning. The review mapped the elements of the shared reading activities presented in these studies. Our thematic analysis of these studies identified three ways in which adults have been found to support children's multilingual learning through shared reading: bilingual interactions; strategies for eliciting children's talk about the picturebook; and adults' linguistic choices. The review also revealed research gaps such as limited focus on multilingual children from diverse linguistic backgrounds outside the USA, scarce research on children speaking more than two languages in multilingual countries, few observational studies that focus on adults' linguistic choices in shaping shared reading as a context for supporting multilingual children's language learning, insufficient studies on the shaping influence of different types of picturebooks (e.g., wordless, multilingual and digital picturebooks) on adult-child interactions, and limited attention to how the design of picturebooks shapes the ways in which parents and children jointly read and interpret them. Implications for future research and early childhood practice are discussed.

Relation formation-emploi

Akbar, R., & Banerjee, R. (2025). **Assessing the Impact of the Post Graduate Work Permit Program on the Earnings of International Students: Evidence From Canadian Employer Employee Dynamics Dataset**. *LABOUR*, *39*(3), 219-232. https://doi.org/10.1111/labr.12291
This study examines the impact of Canada's Post-Graduation Work Permit Program (PGWPP) on the experience premium of former international students using the

Canadian Employer-Employee Dynamics Dataset (CEEDD). The PGWPP allows former international students to work in Canada without restrictions, theoretically equalizing their job prospects with Canadian-born workers and immigrants arriving directly from abroad. Using employer-employee fixed effects models, the study found that the PGWPP reduced the experience premium for former international students by 4.6%. Additionally, the policy had unintended negative effects on other immigrant groups. We explore potential explanations for these outcomes and offer policy recommendations.

Alshammari, A. E., Ahmed, H. M. S., Al-Bukhrani, M. A., Thomran, M., Grada, M., Khojally, H. M. A., & Al-Gobaei, F. (2025). **The interplay of internship education, IT skills, and graduates' employability in saudi arabia: experiential learning theory lens**. *Quality & Quantity*, *59*(4), 3513-3543. https://doi.org/10.1007/s11135-025-02120-y
This study investigates the effects of internship education programs on graduates' employability in Saudi Arabian higher education institutions, focusing on the mediating role of students' IT skills. A quantitative approach using partial least squares structural equation modeling (PLS-SEM) was employed to analyze data from 325 graduate students across four Saudi Arabian universities. The findings revealed that students' IT skills significantly affected their employability. Organizational resources, program design and structure, and program relevance positively affect students' IT skills, which fully mediates the relationship between these internship program aspects and graduates' employability. Surprisingly, internship duration, intensity, mentorship, and supervision did not directly influence IT skills or employability. These results emphasize the importance of well-designed, industry-relevant internship programs that prioritize IT skill development to enhance graduates' employability. This study contributes to the literature on internship education and employability in Saudi Arabian higher education by providing empirical support for experiential learning theory in the context of IT skill acquisition through internships. It also offers insights into how internships can support the Saudi Vision 2030 objectives. This study highlights the need for collaboration among higher education institutions, policymakers, and industry stakeholders to optimize internship programs. Limitations include the cross-sectional nature of the data and the focus on specific internship aspects and IT skills. Future research could employ longitudinal designs and explore a broader range of skills and program components.

Choi, S., & Min, I. (2025). **The impact of cognitive and non-cognitive skills on occupational outcomes: Evidence from Indonesia**. *International Journal of Educational Research*, *133*, 102669. https://doi.org/10.1016/j.ijer.2025.102669
This study examines the educational and labor market outcomes of Indonesia's vocational education system, analyzing how different educational pathways and personality traits influence employment prospects. Using data from the Indonesian Family Life Survey, we investigate the returns to various educational levels, particularly comparing vocational and general education, while considering the role of non-cognitive skills measured through the Big Five personality traits. The findings indicate that vocational education significantly enhances employment prospects and wages in urban areas, highlighting the importance of technical and practical skills development. Among non-cognitive skills, conscientiousness emerges as the most crucial factor for both employment and wages, while emotional stability positively affects wage levels. We further find that neglecting these non-cognitive skills can overstate the significance of education in determining labor market outcomes. The study reveals important implications for educational policy, particularly in curriculum design, teaching

methodologies, and the alignment of vocational education with labor market needs. The results suggest that strengthening the integration of technical skills training with personality development in educational programs could enhance employment outcomes in developing economies.

Doskeyeva, Kuzembekova, Umirzakov, Beimisheva, & Salimbayeva. (2025). **How Can Dual Education in Technical and Vocational Institutions Improve Students' Academic Achievements and Mitigate Youth Unemployment in Kazakhstan**. *Community College Journal of Research and Practice*, *49*(8), 516-531. https://doi.org/10.1080/10668926.2023.2295472
This study aims to describe the role of dual education in improving students' academic achievement and mitigating youth unemployment in Kazakhstan. To examine this issue, a survey was conducted among 496 students from technical and vocational education and training (TVET) institutions. The survey results were analyzed using SPSS program to address four hypotheses. Our survey showed that dual education students are more confident in their demands in the labor market, are more satisfied with the results of their studies, and have higher academic achievement than school-based education students.

Edmark, K. (2025). ***The impact of local supply of upper secondary field of study*** (Working paper N° 2025:13). Consulté à l'adresse IFAU - Institute for Evaluation of Labour Market and Education Policy website: https://EconPapers.repec.org/RePEc:hhs:ifauwp:2025_013
This paper evaluates the impact on students' educational and labour market trajectories of local supply variations in fields of upper secondary education in Sweden. It takes a broad approach and studies the overall, reduced form, effects on several short-, medium- and long-term outcomes. The results highlight the multidimensional impact of educational supply; expanding supply of one track increases its admission rates, but also leads to a redistribution of students across programs. Increased supply is furthermore associated with decreasing average school peer ability, but also with smaller class sizes, and a higher likelihood of getting into one's top ranked program. There is no strong evidence of any long-term effects on the labour market outcomes of local youth – a finding that may reflect the multifaceted short-run impacts.

Legazpe, N., Davia, M. A., & Albert, C. (2025). **Geographical Mobility and Educational Mismatch in University Graduates: Timing, Scope, and Background**. *European Journal of Education*, *60*(3), e70211. https://doi.org/10.1111/ejed.70211
This paper explores the role of geographical mobility in reducing overeducation risks in recent university graduates in Spain based on a sample from the Survey of Labour Insertion of University Graduates 2019 (EILU-2019). We distinguish between different moments for mobility and whether it took place across regions within Spain or overseas. We also consider graduates' family background (parents with tertiary education versus the rest) and distinguish between those who pursue graduate education and the rest. Geographical mobility is associated with lower overeducation risks; but once the factors that explain self-selection in mobility are considered, our results are nuanced, and returns on prior and subsequent mobility or intranational and international migration are no longer relevant or different across socioeconomic groups.

Lessky, F., & Binder, D. (2025). **Does Combining Work and Study 'Pay Off'? Investigating Intersectional Effects of Term-Time Employment, First-Generation Status and Gender on Graduate Outcomes**. *Higher Education Quarterly*, *79*(3), e70046. https://doi.org/10.1111/hequ.70046
Despite globally increasing numbers of university students participating in paid employment during their studies, there is limited evidence on whether working during the lecture period (i.e., term-time) is beneficial for graduate outcomes, especially from an intersectional perspective. Using Austrian national administrative data on all university graduates between 2009 and 2018 (N = 90,026), we examine how student employment is associated with graduate outcomes for university graduates taking intersectional effects of 'first-generation status' and 'gender' into account. Our results extend existing research by showing that First-Generation graduate men and women tend to benefit differently from engaging in term-time employment. This accentuates the need for further research in higher education studies investigating graduate outcomes by taking intersectionality into account. Based on the results of this study, we discuss implications for policy and practice of employability-related activities at higher education institutions.

Lucas & Grebing. (2025). **Hiring Managers' Perceptions of the Employability of Career and Technical Education Graduates**. *Community College Journal of Research and Practice*, *49*(8), 505-515. https://doi.org/10.1080/10668926.2023.2293159
Community colleges serve as a pipeline to industry for students seeking jobs in technical fields. Despite community colleges' contribution to the workforce, there is a stigma attached to their programs, specifically career and technical (CTE) programs. Due to public perception that certificate and associate degree programs lack rigor, employers may devalue the programs offered at community colleges and doubt the abilities of community college graduates. Since education background is an important factor of a candidate's employability, more research is needed to understand how employers view CTE education today. This qualitative study explored hiring managers' perceptions of community college graduates with associate degrees or certificates in a CTE program. Twelve hiring managers from health, insurance, education, and business sectors in a medium-sized city in the Midwest were interviewed. Analysis of the transcripts revealed three findings: (a) education programs prepare graduates to fulfill technical job responsibilities, (b) underdeveloped soft skills and critical thinking skills, and (c) hiring managers look for candidates who demonstrate passion.

Mann, A., & Diaz, J. (2025). ***Tailored Work Experience in Wales*** (OECD Education Working Papers N° 334; 334e éd.). https://doi.org/10.1787/f0560bde-en
This paper examines the Tailored Work Experience (TWE) programme in Wales, an initiative launched in 2022 to re-engage students aged 14–16 at risk of becoming Not in Education, Employment or Training (NEET). Drawing on international research, stakeholder perspectives, and new analysis of data from the 2022 OECD Programme for International Student Assessment (PISA), the paper explores how extended work experience placements can influence student engagement, academic outcomes, and future aspirations. The analysis situates the TWE within broader theories of human, social and cultural capital, and compares it to similar programmes in OECD countries. It finds that while work experience can contribute positively to student motivation and long-term employment prospects, its effectiveness depends heavily on quality, student preparation, and integration with wider career development activities. The paper offers five key considerations for enhancing the TWE programme and highlights the importance

of thoughtful design in maximising benefits for socially disadvantaged and low-performing students.

OECD. (2025). ***Empowering the Workforce in the Context of a Skills-First Approach***. https://doi.org/10.1787/345b6528-en

Romanenko, K., & Platonova, D. (2025). **Upbringing work as local order: Understanding peripheral universities in post-soviet Russia**. *International Journal of Educational Research*, *133*, 102748. https://doi.org/10.1016/j.ijer.2025.102748
This article explores the concept and practice of up-bringing work in regional universities in post-Soviet Russia, particularly those located in economically challenged and demographically declining areas. The study is based on qualitative field data collected between 2016 and 2023 at six classical universities that originated as Soviet teacher-training institutes. It draws on interviews with over 50 students, professors, and administrators, as well as ethnographic observations, visual materials, and field notes. We follow a grounded theory approach to conceptualise up-bringing work as a core category of the local order. Our analysis identifies how up-bringing work is shaped by four key aspects of the environment: geographical location and educational migration, teacher training background, low family SES of students, and uncompetitiveness. These institutions respond pragmatically to their conditions, enacting locally meaningful routines. Up-bringing work is manifested in a repertoire of practices that includes treating universities as surrogate parents, involving students' families in university life, orchestrating collective activities and amateur art, and reproducing systems of specific rewards. These practices reflect a mix of care and control, continuity with Soviet traditions, and adaptation to weak labour markets and low student preparedness. The article contributes to scholarship on higher education in structurally marginalised contexts by offering a conceptual framework that links environmental constraints to organisational practices in non-elite university settings.

Shi, W., & Wang, D. (2025). **Empirical research on the application of AI mock interviews in enhancing graduate perceived employability: a case study in Hangzhou, China**. *Education and Information Technologies*, *30*(13), 18461-18484. https://doi.org/10.1007/s10639-025-13525-5
Employability has been a key area of interest for researchers, especially as China faces increasing pressure in the labor market due to shifting supply and demand dynamics. Despite a steady increase in the number of graduates over the past five years, employment rates have declined, and the rates of slow employment, a slower state of employment, which usually manifests itself in graduates failing to find a job for a long time after graduation or choosing to delay employment, have been rising. Graduates' self-confidence in their employability is one of the most critical indicators of successful employment. Given the rapid digitization in higher education and employment preparation, artificial intelligence (AI) technologies, such as AI mock interviews, have gained increasing attention. Previous researches have shown that innovations, such as digitalization, asynchronous methods, and AI mock interviews, are beneficial for career preparation. However, empirical studies on the application of AI mock interviews in China remains limited. This study aims to investigate the impact of AI mock interviews in improving graduate perceived employability and short-term employability performance through a quasi-experimental design. A total of 42 participants were selected via convenience sampling for the experiment conducted in Hangzhou, Zhejiang, China. The

findings suggest that AI mock interviews can improve graduate perceived employability and its dimensions except reconsideration of commitment, and also effectively optimize graduates' employability performance in real interview scenarios. This research provides new insights for higher education institutions focusing on improving career planning strategies and offers a practical foundation for enhancing graduates' self-assessment of their perceived employability in a more competitive labor market.

The International Initiative for Impact Evaluation (3ie), Yavuz, C., Lee, S., Crépon, B., École nationale de la statistique et de l'administration économique (ENSAE), Shonchoy, A., … The International Initiative for Impact Evaluation (3ie). (2025). ***Mapping the evidence on learning to earning interventions in low- and middle-income countries: A framework proposal and scoping review***. Consulté à l'adresse International Initiative for Impact Evaluation (3ie) website: https://doi.org/10.23846/WP0067
The authors of this paper have proposed a framework that categorises existing technical and vocational education and training (TVET) and skills interventions and labour market outcomes in L&MICs. The framework is intended to serve as a comprehensive basis for an Evidence Gap Map of interventions in the TVET sector. This work was commissioned by the UK's Foreign, Commonwealth and Development Office (FCDO).

Wu, Q., Cheng, X., Wang, W., & Wang, C. (2025). **Employment Skills Demand and Skill Premiums: What Engineering Graduates Does the Market Require?** *European Journal of Education*, *60*(3), e70195. https://doi.org/10.1111/ejed.70195
This study expands the New Human Capital Theory by emphasising how the synergy of multiple skill combinations contributes to securing high-paying positions. Unlike traditional research that focuses on the wage premiums of single or paired skills, this study finds that a composite configuration of decision-making, innovation, research and development, and problem-solving is the key determinant for engineering professionals to excel in high-end roles. Industry analysis further reveals distinct skill demands across sectors. In science-based industries (e.g., biopharmaceuticals and electronics telecommunications), technological innovation and decision-making abilities are critical. In production-intensive industries (e.g., mechanical manufacturing and electrical energy), management and strategic coordination play a central role. Meanwhile, in supplier-dominated industries (e.g., construction and logistics), resource allocation and organisational capabilities are the primary drivers of salary premiums. These findings indicate that higher education should move away from a generalised training model and transition towards industry-specific skill alignment. To quantify the factors influencing salary determination, this study develops a Skill Premium Index, addressing the collinearity issues inherent in traditional regression methods and enhancing the precision of identifying core competencies for high-paying positions. Additionally, the study highlights a structural mismatch in China's state-led skill formation system, where the expansion of graduate education has outpaced the growth of high-skilled job opportunities, resulting in low employment matching rates for highly educated professionals. To resolve this challenge, engineering education should strengthen industry-academia collaboration, optimise curricular structures, adopt dual-education models and establish a comprehensive skill certification system. These measures will facilitate a deeper integration between higher education and industry demands, ultimately enhancing the labour market adaptability of engineering graduates.

Réussite scolaire

Addi-Raccah, A., & Streisfeld, S. (2025). **Social Gaps in Eligibility for a Matriculation Certificate in Israel: A Pre- and Post-COVID-19 Comparison**. *Social Justice Research*, *38*(3), 352-375. https://doi.org/10.1007/s11211-025-00461-5
The COVID-19 pandemic, as a global health crisis, has disrupted schools and students' lives, and raised concern about an increase in social inequality. Three hypotheses were examined: 1. Between pre-COVID-19, during COVID-19, and post-COVID-19, there will be a decrease over time in the percentage of matriculation certificate (PMC) and outstanding matriculation certificate eligibility (POMC) in schools; (H2) The decrease in PMC over time will be greater in schools in the Arab sector compared to those in the Jewish sector and within each educational sector, in low-socioeconomic schools compared to high-socioeconomic schools; (H3) Sectorial and socioeconomic differences in schools' POMC eligibility over time will be greater than the PMC eligibility. These hypotheses were tested within the context of the Ministry of Education modification of the format of matriculation exams, at 12th grade. The data included 863 schools in the Jewish and Arab sectors on four time points: pre (2019), during (2020-2021), and post-COVID-19 (2022). Descriptive analysis and a two-level linear mixed model with repeated measures were conducted. An increase in the percentage of matriculation certificate eligibility was found in schools, particularly in disadvantaged ones, reducing sectoral and socioeconomic inequality. At the same time there was an increase in the percentage of outstanding matriculation certificates, mainly among advantaged schools, leading to an increase in inequality. The findings indicate a decrease in vertical stratification and an increase in horizontal stratification, emphasizing the complexity of promoting educational opportunities in the era of risk society.

Agasisti, T., & Soncin, M. (2025). **Italy: Student Performance and Learning Loss**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 93-103). https://doi.org/10.1007/978-3-031-69284-0_7
Recent evidence from the 2022 wave of the OECD Programme for International Student Assessment (PISA) sheds light on the phenomenon of learning loss exacerbated by the COVID-19 pandemic. Italy, having implemented one of the longest national school closures during the pandemic, serves as a notable case study. This chapter reviews studies exploring the extent of learning loss that reveal significant negative results—particularly in mathematics and reading—with the only exception of reading in primary education. The learning loss in lower and upper secondary school ranges between 0.05 and 0.41 standard deviations (SD) respectively in reading, and 0.03 and 0.39 SD in mathematics, with impacts intensifying at higher educational levels. Despite efforts to address learning loss through measures such as online tutoring programmes, the long-term consequences remain a concern, particularly for upper secondary students. Further research is crucial to understanding the full scope of COVID-19's impact on education, including its implications for student well-being and the enduring effects of the adoption of digital technology.

Arco-Tirado, J. L., Fernández-Martín, F. D., Torres, M. H., Gregorová, A. B., Heinzová, Z., & Singh, S. S. (2025). **Secondary school dropout prevention through service-learning: A pilot study**. *International Journal of Educational Research*, *133*, 102704. https://doi.org/10.1016/j.ijer.2025.102704

This study investigates the impact of a service-learning program on secondary school dropout prevention in four European countries. The methodological design was a cluster randomized trial. The intervention involved a sample of secondary school students (n = 204), implementing an ad hoc intervention model. Regression results in Model 7 with all predictors and controls show a significant effect in the variable experimental group, with all predictors and controls explaining 27.9 % of the variance. Suggestive positive results are present for other variables like country (Austria) and Slovakia (Model 2), global trait emotional intelligence (Model 3), civic responsibility, civic efficacy (Model 4), civic skills (Model 5), and learning mindset (Model 6). Based on these promising results, some recommendations are made to improve the future impact of this type of comprehensive service-learning program.

Ateş, H., & Polat, M. (2025). **Leveraging augmented reality and gamification for enhanced self-regulation in science education**. *Education and Information Technologies*, *30*(12), 17079-17110. https://doi.org/10.1007/s10639-025-13481-0
This study investigates the efficacy of integrating augmented reality (AR)-based gamification with self-regulated learning (SRL) strategies to enhance middle school students' academic performance, engagement, satisfaction, and self-efficacy in science education. Employing immersive AR technologies alongside gamification elements, this approach is designed to cultivate an engaging and learner-centered environment that promotes essential SRL competencies including goal-setting, self-monitoring, and reflective thinking. Utilizing an experimental research design, the study engaged 60 middle school students who were allocated into two groups: one experiencing self-regulated AR-based gamification and the other experiencing traditional AR-based gamification without self-regulation components. The findings reveal that students in the self-regulated AR-based gamification group demonstrated significantly enhanced levels of academic achievement, engagement, self-efficacy, and overall satisfaction compared to their peers in the traditional group. These outcomes suggest that the strategic integration of AR-based gamification with SRL strategies not only fosters significant improvements in educational performance but also enriches the learning experience, thereby providing critical insights for the development of innovative educational technologies that support comprehensive understanding and foster student autonomy in science education.

Avanesian, G., & Rozhkova, K. (2025). **The effect of non-cognitive skills on academic performance: does it vary by socio-economic status?** *International Journal of Educational Research*, *133*, 102680. https://doi.org/10.1016/j.ijer.2025.102680
Academic achievement at school as a crucial determinant of further educational attainment is largely affected by family socio-economic status (SES). Non-cognitive skills may, at least partly, mediate this effect and serve as a promising aim for educational policy in leveling educational inequality. Based on OECD Survey for Social and Emotional Skills (OECD SSES), this paper uses a mixed-effects modeling approach to explore the relationship between non-cognitive skills, SES, and academic achievement for schoolchildren from 8 cities in 7 countries. The results suggest that non-cognitive skills significantly reduce the effect of SES on achievement, although it depends on the differences in country-level socio-economic and cultural context. Task performance and open-mindedness are the most influential non-cognitive skills related to achievement, with the effect being most pronounced among low-SES children. Significant non-linear effects are also observed for collaboration. Overall, our models reveal that while

individual student differences account for most of the variance in academic performance, there is a non-trivial proportion of variance explained by non-cognitive skills, particularly among high achievers. This underlines the potential of targeted interventions aimed at developing these skills to foster academic excellence, especially within socio-economically diverse urban environments.

Ball, I., Banerjee, M., Holliman, A., & Tyndall, I. (2025). **Investigating Success in the Transition to University: A Systematic Review of Personal Risk and Protective Factors Influencing Psychosocial Success**. *Educational Psychology Review*, *37*(3), 77. https://doi.org/10.1007/s10648-025-10047-x
Navigating the transition to university is a challenge for many students with numerous negative consequences if not successful. The current literature body is disparate and contains numerous methodological and analytical inconsistencies that make it difficult to identify the most salient and effective factors that help predict transition success for students. The present study provides a systematic review of quantitative research linking personal level risk and protective factors to psychosocial success outcomes in the transition to university. Previous work has investigated factors influencing more traditional success metrics (e.g., academic achievement, completion), but the factors influencing, arguably more holistic, psychosocial success metrics (e.g., wellbeing) should also be understood. This is part of a larger review, following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) and Synthesis Without Meta-analysis (SWiM) guidelines, preregistered on the International Prospective Register of Systematic Reviews (PROSPERO, CRD42022330515), searching PsycInfo, Web of Science, and ERIC databases. Records were included if they studied 'traditional' first-year students transitioning to university and were longitudinal in design and excluded if they looked at specific subgroups of students (e.g., international students). The search yielded 32 articles that were eligible, highlighting 96 purportedly different salient factors which are consolidated to 16 salient elements grouped around five higher order domains. The findings are discussed with a consolidation mindset that aims to move the research forward towards an evidence-based feasible and pragmatic intervention to enhance the probability of successful student transition to university.

Bao, T. (2025). **L'échec des étudiants chinois en France : un effet de classe ?** *Agora débats/jeunesses*, *100*(2), 7-14. https://doi.org/10.3917/agora.100.0007
Les étudiants chinois forment, au sein de l'enseignement supérieur français, la première communauté étudiante étrangère issue d'un pays non francophone. Paradoxalement, leur réussite académique reste quasi invisible dans la recherche scientifique. Le faible coût des études en France permet l'arrivée relativement importante des étudiants chinois issus des classes populaires et supposés plus fragiles. En s'appuyant principalement sur des données quantitatives, complétées par des entretiens qualitatifs, cet article vise à éclairer le rôle joué par l'origine sociale au sein de la population étudiante chinoise dans sa réussite universitaire.

Beuermann, D., Bonilla, A. R., & Stampini, M. (2025). **Conditional Cash Transfers, School Progression and Academic Achievement in Jamaica**. *IDB Publications*. https://doi.org/10.18235/0013606
Covering the full population of applicants to the Jamaican Conditional Cash Transfer Program (PATH), we explore whether receiving PATH during childhood causally affects school progression and academic performance at the primary, secondary and tertiary

levels. To uncover causal associations, we exploit exogenous variation arising from the PATH eligibility criteria within a regression discontinuity design. We find that for both, boys and girls, PATH significantly increases the likelihood of completing primary and secondary school. Furthermore, among boys, PATH increased the likelihood of pursuing tertiary studies. However, conditional on primary school completion, PATH had no effects on academic performance at any educational level.

Beuermann, D., Ramos Bonilla, A., & Stampini, M. (2025). ***Conditional Cash Transfers, School Progression and Academic Achievement in Jamaica*** (Working paper N° 14174). https://doi.org/10.18235/0013606
Covering the full population of applicants to the Jamaican Conditional Cash Transfer Program (PATH), we explore whether receiving PATH during childhood causally affects school progression and academic performance at the primary, secondary and tertiary levels. To uncover causal associations, we exploit exogenous variation arising from the PATH eligibility criteria within a regression discontinuity design. We find that for both, boys and girls, PATH significantly increases the likelihood of completing primary and secondary school. Furthermore, among boys, PATH increased the likelihood of pursuing tertiary studies. However, conditional on primary school completion, PATH had no effects on academic performance at any educational level.

Bournaud, I., & Deroche, T. (2025). **" Réussir en 1 ère année à l'université c'est ... " Quelles représentations des personnels de la communauté pédagogique ?** *QPES 2025 : Colloque "Questions de pédagogie dans l'enseignement supérieur "*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05160175
La définition de ce qu'est réussir à l'université s'est élargie ces dernières années, pour dépasser la seule acquisition de connaissances ou la maîtrise de compétences disciplinaires en s'enrichissant du développement de compétences transversales et de compétences dites non académiques. L'étude présentée ici a pour but d'identifier si cet élargissement conceptuel se vérifie au sein de la communauté pédagogique de l'Université Paris-Saclay. Les résultats de l'étude exploratoire menée montrent que la réussite étudiante en 1 ère année à l'université se décline sur 7 dimensions : qualitative (acquisition de connaissances ou développement de compétences disciplinaires), vocationnelle (construction de son projet d'études ou professionnel), personnelle selon trois volets : bien-être, relations sociales, et régulation émotionnelle, et de performance selon deux volets : au regard de la norme institutionnelle ou par comparaison au sein d'un groupe. Par ailleurs, la communauté pédagogique semble se distinguer à travers trois types de représentations de la réussite étudiante, dépendamment des missions et statuts de chaque actrice et acteur notamment.

Café pédagogique. (2025, août 25). **58,8 % des candidat.es au bac obtiennent une mention**. Consulté 29 août 2025, à l'adresse Le Café pédagogique website: https://www.cafepedagogique.net/2025/08/25/588-des-candidats-au-bac-obtiennent-une-mention/
Les mentions sont légion depuis quelques années au BAC et au DNB. A l'issue de la session de juin 2025, 58,8 % des candidat.es au baccalauréat obtiennent une mention. Ils

Cerisier, J.-F. (2025). **Pratiques numériques informelles juvéniles et réussite scolaire en France**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wc

Si le rôle de l'École et des familles est central dans l'éducation, les apprentissages des jeunes s'enrichissent d'expériences numériques informelles effectuées dans les domaines variés : cognitif, social, culturel ou citoyen. Ces apprentissages expérientiels, volontairement invisibilisés par les élèves, sont ignorés par l'École, alors même qu'ils concourent à la réussite scolaire et sont porteurs d'iniquité sociale. Leur importance était déjà décrite à l'arrivée de la télévision mais ils prennent des formes nouvelles avec les ressources et services numériques intensément utilisés par les jeunes. L'École se doit désormais de valorisent les apprentissages numériques informels et de lutter contre les inégalités sociales numériques.

Chen, Y., Zhi, Y., & Derakhshan, A. (2025). **Integrating Artificial Intelligence (AI) Into the English as a Foreign Language Classroom: Exploring Its Impact on Students' Achievement Emotions and Willingness to Communicate (WTC)**. *European Journal of Education*, *60*(3), e70157. https://doi.org/10.1111/ejed.70157
This intervention study strived to uncover the significance of Artificial Intelligence (AI) in L2 classrooms by exploring its impact on English language learners' achievement emotions and willingness to communicate (WTC). The study also examined the interrelationship between English learners' achievement emotions and their WTC in AI-powered classrooms. To these aims, a group of Chinese English students (N = 204) was randomly divided into the control and treatment groups. Prior to commencing the experiment, two pre-designed inventories were administered to both the control and the treatment group. Following the initial assessment, students in the treatment group (N = 107) received AI-based instruction for a period of 6 weeks. In parallel, students in the control group (N = 97) were subjected to conventional education. At the conclusion of the experiment, the pre-designed surveys were distributed among the control and treatment groups. The results of the experiment showed that students in the treatment group, who received the AI-based instruction, exhibited a higher increase in their positive achievement emotions and WTC compared to their counterparts in the control group. The results also evinced a strong and favourable connection between students' WTC and their positive achievement emotions. The study offers precious insights for educational leaders and language teachers regarding the benefits of integrating AI into L2 classrooms.

Chiou, C.-C., & Lin, K. H.-C. (2025). **Learning-related animated multidimensional concept map multimedia materials to stimulate positive emotions and enhance learning achievements in university students: A true experimental design**. *Education and Information Technologies*, *30*(12), 17659-17694. https://doi.org/10.1007/s10639-025-13473-0
This study aimed to explore the effects of integrating learning-related animations and anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials to stimulate positive emotions in university students and to investigate whether these materials could improve their learning achievements. The research method employed a true experimental design. Participants were 158 volunteer students recruited from the College of Management at a national university in central Taiwan. Data analysis methods included analysis of covariance and regression analysis. Results showed that multimedia learning materials using learning-related animated multidimensional concept maps were more effective in stimulating students' positive emotions and improving their learning outcomes than the other three types. Notably, students' learning achievements were directly influenced by the use of different types of

multimedia learning materials rather than through the mediation of positive emotions. In conclusion, this study demonstrates that integrating learning-related animations and anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials can stimulate students' positive emotions and positively impact their learning achievements. This study innovatively integrates additional elements such as learning-related animations and intrinsic design elements like anthropomorphic warm-colored multidimensional concept maps into multimedia learning materials, providing additional contributions to the cognitive theory of multimedia learning and the principles of emotional design.

Crato, N., & Patrinos, H. A. (2025). **PIRLS 2021 and PISA 2022 Statistics Show How Serious the Pandemic Losses Are**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 1-15). https://doi.org/10.1007/978-3-031-69284-0_1
PIRLS 2021 and PISA 2022 are the first international large-scale surveys that assessed students worldwide after the COVID-19 pandemic school closures. As expected, they reveal devastating learning losses for students of most countries and regions although in a few of them average results were able to progress despite the pandemic. For many countries and regions, the recent student learning losses add to previous losses. This chapter discusses these setbacks and highlights the main conclusions from different countries' experiences. Unsurprisingly, the key factors are the curriculum, which needs to be streamlined and made more rigorous and better structured; the assessment, which needs to be regular, frequent, and to combine national standardized testing with formative tools; and the targeted support for struggling students.

Delavande, A., Del Bono, E., Holford, A. J., & Williams, K. (2025). ***Timetables, Attendance and Academic Achievement in Higher Education*** (Working paper N° 17979). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp17979
We identify the impacts of a student's timetable on their attendance, study time and academic achievement using administrative and survey data from a public UK university across a broad range of degree programmes using quasi-random assignment of students to their timetables. Timetable measures include back-to-back classes, single-class days, time-of-day, day-of-instruction and long hours. We observe hourly attendance decisions. Findings indicate that student attendance at the event level is highly dependent on the timetable structure. Single-class days reduce attendance and back-to-back classes raise it. We are able to show that students compensate for marginal non-attendance at some events with increased attendance at other events on the same module, or among more conscientious students, with increased study time. Net of all behavioural responses to the timetable, these features have little impact on academic attainment.

Ding, Z., Liu, R.-D., Ding, Y., Yang, X., & Yang, Y. (2025). **Moderation is the key: taking too easy or too hard courses increases academic cyberloafing**. *Education and Information Technologies*, *30*(13), 18513-18538. https://doi.org/10.1007/s10639-025-13546-0
Academic cyberloafing, defined as the involvement in non-academic online activities during academic tasks, has emerged as a prevalent concern within higher education. While previous research has identified course-related factors that may influence academic cyberloafing, the specific relation between perceived course difficulty and academic cyberloafing remains underexplored. To address this gap, five studies

(N = 1118) were conducted to investigate the relation between perceived course difficulty and academic cyberloafing and the mediating role of learning engagement among Chinese college students. Study 1 employed a questionnaire to investigate the U-shaped relation between perceived course difficulty and academic cyberloafing. Study 2, utilizing an experimental design, further confirmed this U-shaped relation. Studies 3 and 4 demonstrated learning engagement mediated the relation between perceived course difficulty and academic cyberloafing through scenario-based experiments. Finally, Study 5 reinforced these findings by manipulating perceived course difficulty within a real classroom setting, providing additional support for the mediating role of learning engagement. The results emphasize the critical role of students' engagement with course content in influencing their likelihood of engaging in academic cyberloafing, particularly when the perceived course difficulty is moderate. Taken together, the findings have implications for teachers' course design and contribute to a more comprehensive understanding of academic cyberloafing in classrooms.

Doskeyeva, Kuzembekova, Umirzakov, Beimisheva, & Salimbayeva. (2025). **How Can Dual Education in Technical and Vocational Institutions Improve Students' Academic Achievements and Mitigate Youth Unemployment in Kazakhstan**. *Community College Journal of Research and Practice*, *49*(8), 516-531. https://doi.org/10.1080/10668926.2023.2295472
This study aims to describe the role of dual education in improving students' academic achievement and mitigating youth unemployment in Kazakhstan. To examine this issue, a survey was conducted among 496 students from technical and vocational education and training (TVET) institutions. The survey results were analyzed using SPSS program to address four hypotheses. Our survey showed that dual education students are more confident in their demands in the labor market, are more satisfied with the results of their studies, and have higher academic achievement than school-based education students.

Duran, N. S., & Lleras, C. L. (2025). **Neighborhood Disadvantage, Peer Acceptance, and Sense of Belonging among Middle School Students**. *Child Indicators Research*, *18*(4), 1905-1926. https://doi.org/10.1007/s12187-025-10264-4
Prior studies have demonstrated how living in economically disadvantaged and dangerous neighborhoods is associated with poorer developmental outcomes including depressed academic achievement, poorer physical and mental health, and lower school engagement. At the same time, studies have shown peer acceptance and school belonging are closely connected such that when youth feel more accepted by their classmates, they feel happier and more secure and exhibit greater academic motivation and classroom engagement. Our study builds on these prior bodies of work by examining how neighborhood disadvantage and the quality of peer relationships in school influence students' sense of belonging in middle school. This study utilized data from the last wave of the Early Childhood Longitudinal Study – Kindergarten Cohort (1998–1999) when students were in eighth grade combined with tract-level data from the 2000 Census to conduct multilevel regression analyses. The findings suggest youth living in more structurally disadvantaged neighborhoods reported lower school belonging at the end of eighth grade. Consistent with prior studies, we also found youth who felt more accepted by their peers had a greater sense of school belonging, regardless of the kinds of neighborhoods, schools, and families they were living in suggesting that peer acceptance may play a powerful role in creating school attachment during

adolescence. The demonstrated impact of peer acceptance on school belonging highlights the importance of fostering opportunities for socialization through school-based programs and practices which may foster greater school attachment and improve educational attainment.

Duru-Bellat, M. (2025, août 25). **Médiocre et en baisse, ce que révèle notre niveau en maths**. Consulté 29 août 2025, à l'adresse Alternatives Economiques website: https://www.alternatives-economiques.fr/marie-duru-bellat/mediocre-baisse-revele-niveau-maths/00115844
Dans une note publiée en juin 2025, le Haut-Commissariat à la stratégie et au plan (HCSP) revient de manière détaillée sur le constat récurrent de la médiocrité des élèves français, à l'aune des comparaisons internationales, tout spécialement en mathématiques et en sciences. Avec dès le titre, la question : faut-il s'inquiéter ?

Grönqvist, E., Öckert, B., & Rosenqvist, O. (2025). **Does the « Boost for Mathematics » Boost Mathematics? A Large-Scale Evaluation of the « Lesson Study »Methodology on Student Performance**. *American Economic Journal: Economic Policy*, *17*(3), 345-372. https://doi.org/10.1257/pol.20220009
Does the « Boost for Mathematics » Boost Mathematics? A Large-Scale Evaluation of the « Lesson Study » Methodology on Student Performance by Erik Grönqvist, Björn Öckert and Olof Rosenqvist. Published in volume 17, issue 3, pages 345-72 of American Economic Journal: Economic Policy, August 2025, Abst...

Guo, Y., Song, Y., & Guo, J. (2025). **The curvilinear relationship between cyberloafing and academic performance among college students: an empirical evidence from China**. *Education and Information Technologies*, *30*(13), 18327-18346. https://doi.org/10.1007/s10639-025-13499-4
The digital transformation in education and the widespread use of mobile devices have blurred the boundaries between students' learning and entertainment, increasing the prevalence of cyberloafing among college students. To address the inconsistent effects of cyberloafing on academic achievement, this study proposed a curvilinear relationship based on the cognitive load theory (CLT) and the effort-recovery model (ERM). We collected data through a nationwide survey conducted in Chinese higher education institutions, with a total of 98,360 valid responses. A polynomial regression analysis was used to examine the non-linear relationship between the extent of cyberloafing and college students' academic performance. The findings suggested an inverted U-shaped association between college students' cyberloafing behavior and their academic performance, indicating that moderate levels of cyberloafing may enhance academic achievement, whereas excessive cyberloafing was associated with a decline in academic performance. Furthermore, physical exercise played a buffering role in this inverted U-shaped relationship, with college students who engaged in lower levels of exercise experiencing a more pronounced adverse effect of cyberloafing on their academic performance compared with their physically active peers. By adopting a dialectical approach, this research sheds light on the complexities and nuances of cyberloafing, thereby enriching our comprehension of this phenomenon. In terms of practice, the findings of this study can help students harness its positive effects while minimizing the negative effects.

Hanushek, E. A., & Strauss, B. (2025). **United States: The Size and Variation of the Pandemic Learning Losses**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 189-203). https://doi.org/10.1007/978-3-031-69284-0_13
Recent international and national assessments point to the substantial learning losses that resulted from school disruptions during the pandemic. The United States, which entered the pandemic with achievement near the OECD average, had rather average pandemic learning losses and came out of the pandemic at roughly the same international ranking as before the pandemic. The learning losses from the pandemic foretell substantial economic costs related to the lower skills of those in the COVID-19 cohort. At the same time, there was substantial heterogeneity in achievement losses across states and across individuals, leading to disproportionate economic impacts on some individuals and states. Unlike the other economic costs of the pandemic, those from learning losses are future costs that are yet to accrue and that can be ameliorated by public action—but the time for feasibly addressing them is quickly running out.

Hu, L., Chen, Y., & Chen, L. (2025). **A study on the impact of diverse evaluation system on college students' sense of achievement in English learning: An empirical research based on the knowledge graphs of College English**. *Education and Information Technologies*, *30*(13), 17805-17834. https://doi.org/10.1007/s10639-025-13483-y
With the continuous development of higher education, the evaluation of college students' learning has received increasing attention.Understanding the impact of the multiple evaluation system on college students' sense of English learning acquisition is of great significance. It helps educators to better design teaching activities and evaluation methods.This study focuses on 90 freshmen enrolled in the course of College English. Using research tools and methods such as questionnaire, classroom observations, and online tests, the research is to explore the impact of diverse evaluation methods on students' sense of achievement. The findings show that there is a significantly positive correlation between students' learning behaviors, such as the degree of learning engagement and learning methods, and students' sense of knowledge acquisition. There is a significantly positive correlation between teachers' teaching behaviors such as teaching methods and teaching design, and students' sense of ability acquisition.There is a significantly positive correlation between the learning environment such as timely feedback on student' learning and assessment methods, and students' sense of emotional acquisition.Diversified assessment methods can enhance students' interest in learning, increase their level of engagement, improve their participation in the course, and enhance their sense of achievement. The authors suggest that it is necessary to utilize the learning situation data of the knowledge graph to conduct multi-dimensional and multi-level course evaluations for students, so as to improve students' sense of acquisition in terms of knowledge, abilities and emotions.

Huang, M., & Liu, X. (2025). **Pathways to equity: A mediation analysis of gender, SES, and mathematics achievement using PISA 2022 UK data**. *International Journal of Educational Research*, *133*, 102666. https://doi.org/10.1016/j.ijer.2025.102666
This study examines the relationship between gender, socioeconomic status, and mathematics achievement in mathematics education in the United Kingdom, focusing on the mediating role of mathematics teacher support, growth mindset, and mathematics anxiety. Based on the data from the PISA 2022 database for the UK, the analysis uses the mediation effect test method. The results show no significant gender

differences in mathematics achievement, while socioeconomic status has a positive effect on mathematics achievement. Male students exhibited receiving significantly higher levels of teacher support and demonstrating stronger growth mindset, but experiencing lower mathematics anxiety compared to female students. There is no correlation between socioeconomic status and mathematics teacher support, a positive correlation with growth mindset, and a negative correlation with mathematics anxiety. Research shows that teacher support and growth mindset positively affect mathematics achievement, while mathematics anxiety has negative effects. The study also finds that gender has a mediating influence on the path from gender to mathematics teacher support to growth mindset to mathematics anxiety and then to mathematics achievement. The study provides policy recommendations for improving the quality of mathematics education, especially for girls and students of low socioeconomic status, and emphasises the importance of enhancing teacher support, fostering a growth mindset, and reducing mathematics anxiety.

Huillery, E. (2025). **France: How COVID-19 Pandemic Affected Learning and Equity of the Education System**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 79-92). https://doi.org/10.1007/978-3-031-69284-0_6
This chapter examines French educational outcomes before and after the onset of the COVID-19 pandemic. Pre-COVID trends reveal a slow continuous decline in academic performance over time, and steadily strong social inequality. Post-COVID evolution is mixed: PISA 2022 shows a sharp decline in performance for 15-year-old students, stronger than in the average OECD country; but PIRLS 2021 shows a remarkable stability in the reading skills of 4th Grade students, which looks like an exception in the context of a global decline in performance; finally, social inequality did not deteriorate in France, which also contrasts with the typical OECD country. These mixed results may be related to the fact that French school closed much less than in most countries during the pandemic, and to the class-size reduction reform implemented in 2017 in Grade 1 and 2 in disadvantaged schools. These policies may have counteracted the pandemic losses for young students, although not for adolescents.

Jagielo-Manion, R., & Nagle, J. T. (2025). **Supporting First-Year Experience Students' Academic Self-Efficacy with Intentional Instructional Design**. *Innovative Higher Education*, *50*(4), 1115-1137. https://doi.org/10.1007/s10755-024-09768-8
First-Year Experience (FYE) courses are found in colleges across the United States to support students' transition to college (McBride et al., 2021, Journal of the First-Year Experience & Students in Transition 33:99–119, Young & Keup, 2016, New Directions for Community Colleges 2016:57–69). This study explored how bridging pedagogical and andragogical principles in an intentionally designed book study and experiential learning project influenced 89 first-year college students' perceptions of their self-efficacy. Pre- and post-surveys and classroom artifacts were used to collect data on participants' perceptions of their self-efficacy related to peer collaboration, institutional support, motivation/self-directed learning, and study strategies. Findings revealed that participants' comfort levels in study strategies, peer collaboration, use of university resources, and academic research increased from the start to the end of the book study and experiential learning project. Results of this study can be utilized as a guide for instructors/programs in the design and implementation of their courses to best support first-year students' perceptions of self-efficacy and their persistence to graduation.

Košir, S., Aslan, M., & Lakshminarayanan, R. (2025). **Adolescent dropout and school attachment: The moderating effects of gender**. *International Journal of Educational Development*, *117*, 103356. https://doi.org/10.1016/j.ijedudev.2025.103356
A dynamic school environment is necessary to ensure positive learning outcomes and holistic development of adolescents. In Albania, despite considerable attempts to increase school participation and provide quality education, school dropout has escalated in recent years, largely impacting vulnerable groups linked to poverty and ethnic, cultural and social factors. Drawing on attachment theory and its implications for adolescent development, a quantitative analysis was conducted using surveys and Structural Equation Modelling (SEM) to assess the influence of gender as a moderator in the relationship between school attachment and dropout rates in Albania. The results indicate significant differences between boys and girls in overall school attachment scores and specific school attachment dimensions. The findings suggest that gender plays a crucial role in moderating school attachment, with implications for targeted interventions to enhance school connectedness and reduce dropout rates. The study underscores the importance of considering gender in educational strategies and policies to foster a supportive school environment accommodating both male and female students' unique needs. The authors suggest that future research could explore these dynamics to inform practices that promote educational retention and success for all students.

Kyereko, D. O., Smith, W. C., Hlovor, I., & Okai, R. (2025). **Beyond the « Repeater » Label: Amplifying student perspectives on grade repetition and protective factors in Ghana**. *International Journal of Educational Research*, *133*, 102714. https://doi.org/10.1016/j.ijer.2025.102714
This qualitative case study explores the lived experiences of students in Ghana who have repeated a grade, using labelling theory as a lens. Labelling theory posits that deviance arises from the social meanings and stigma attached to labels, rather than inherent characteristics. Through semi-structured interviews with 40 students who have repeated a grade, the study examines how the « repeater » label shapes students' selfperceptions, interactions, and educational trajectories. Findings illustrate the marginalising effects of labelling, including diminished self-efficacy, social stigma, and weakened school connections. However, protective factors like parental involvement, teacher support, and school interventions mitigated negative labelling impacts. The study underscores how labels are socially constructed and can be reshaped through supportive practices that challenge stigma and promote empowerment. By centering student voices, the research informs efforts to create more inclusive educational environments that recognize labelling's powerful influence on students' experiences and outcomes.

Lee, S., Lee, Y., Park, S.-Y., & Ham, E. H. (2025). **Exploring the dynamics of self-regulated learning in online courses: trajectories of self-regulated learning and the role of basic psychological needs satisfaction across different achievement levels**. *Education and Information Technologies*, *30*(12), 16861-16891. https://doi.org/10.1007/s10639-025-13443-6
This study aimed to investigate the trajectories of students' self-regulated learning in an online course and the predictive role of students' satisfaction with basic psychological needs (autonomy, competence, relatedness) on these trajectories. Additionally, the potential variation in the relationship between basic psychological needs and self-

regulated learning based on students' achievement levels was examined. The analysis of data revealed a significant increase in students' self-regulated learning scores throughout the three-month course. Data from 1,105 elementary and middle school students participating in an online learning program were collected over four 12-week periods. This study confirmed the increase in learners' self-regulated learning in an online learning environment over a 12-week period. The study found that autonomy, competence, and relatedness were related to the initial value of self-regulated learning but did not significantly influence the growth of self-regulated learning over the course. The study also found that the relationship between basic psychological needs and self-regulated learning varied among different achievement groups. Autonomy and competence played a significant role in predicting the initial level of self-regulated learning in all groups, regardless of achievement level, whereas relatedness had the most substantial effect for the high-achieving group.

Lei, H., Chen, L., Chiu, M. M., Fang, L., & Ding, Y. (2025). **Effects of Adding Illustrations to Texts on Students' Science Achievement: A Meta-Analysis**. *Educational Psychology Review*, *37*(3), 71. https://doi.org/10.1007/s10648-025-10053-z
Adding illustrations to texts might improve students' science achievement. This meta-analysis of 121 effect sizes from 63 studies of 7,621 students across five decades determines both the overall effect and moderators that account for differences across studies. Our random-effects model shows a positive effect of adding illustrations to texts on science achievement (g = 0.232, k = 121, 95% CI [0.166, 0.298]). Added illustrations showed a stronger effect in (a) countries with higher national incomes, (b) risk accepting cultures, (c) short-term orientation cultures, (d) higher grade levels; (e) organizational illustrations, with effects tapering in explanative, representational, and incongruent ones; (f) flow or pictorial diagrams, (g) black-and-white illustrations; (h) cause-and-effect or comparison texts; or (i) tests of understanding and transfer. Test media (paper vs. computer) did not moderate this effect. These findings suggest that teachers can wisely choose and add illustrations to text to aid their students' learning.

Li, Y. (2025). **Competition or cooperation: Which is better for students' academic performance? A multi-level analysis across cultures based on PISA 2018**. *International Journal of Educational Research*, *133*, 102707. https://doi.org/10.1016/j.ijer.2025.102707
Competition and cooperation are multilevel, culturally constructed concepts with significant yet contentious roles in education. Despite their importance, their multilevel associations with academic performance across cultures are underexplored. This study used multilevel modeling with PISA 2018 data to examine how student and school-level competition and cooperation relate to academic performance in reading, math, and science across eight cultures and 76 economies. Results from the pooled sample indicated that cooperation generally demonstrated a stronger positive association with academic outcomes than competition, with the associations being more pronounced at the school level than at the individual level. Cultural and country-specific analyses revealed nuanced findings: while most countries showed no significant associations, where significant relationships were found, cooperation tended to positively correlate with academic outcomes. Conversely, competition tended to be negatively linked to performance, except in African & Middle Eastern and Confucian cultures, where school-level competition exhibited strong positive links to performance. Importantly, the findings highlight that the relationship patterns vary by analytical level and cultural context, with significant implications for educational policy and practice across diverse cultures.

Ling, T. (2025). **Developmental Trajectories of Students' Life Satisfaction and Reciprocal Relations with Parental Autonomy Support in Elementary and Secondary School**. *Journal of Happiness Studies*, *26*(6), 111. https://doi.org/10.1007/s10902-025-00945-w
Life satisfaction has received increasing attention in psychological research, but there remain mixed results about the developmental trajectories of students' life satisfaction, and little is known about the potential reciprocal relations between parental autonomy support and life satisfaction. Using information from nationally representative elementary school students (Grade 4–6, N = 2607, k = 171 schools) and secondary school students (Grade 7–9, N = 2590, k = 162 schools) in South Korea, the current study examined the developmental trajectories of students' life satisfaction and the relations between life satisfaction and parental autonomy support. Latent neighbor change models showed that life satisfaction decreased for both elementary and secondary school students. Latent cross-lagged panel models showed that parental autonomy support and life satisfaction were reciprocally linked over time among secondary school students. Parental autonomy support predicted subsequent life satisfaction, and life satisfaction positively predicted parental autonomy support. However, the effects of parental autonomy support on subsequent life satisfaction were not significant for elementary school students. Parental autonomy support tended to increase in importance from elementary to secondary school. Moreover, sensitivity analyses indicated gender differences in the development of life satisfaction. These findings contribute to ongoing research to develop more tailored programs to support the life satisfaction of struggling students.

Liu, J., Shadiev, R., & Cao, M. (2025). **Effects of digital citizenship educational game on teenagers' learning achievement, motivation, cognitive load, and behavioral patterns**. *Education and Information Technologies*, *30*(11), 15817-15870. https://doi.org/10.1007/s10639-025-13399-7
Integrating digital games into learning about digital citizenship has garnered significant attention. While digital game-based learning has the potential to enhance learners' academic performance, engagement, and motivation, these games often focus on specific aspects of digital citizenship education and lack systematic design approaches. Furthermore, current game designs are predominantly influenced by behaviorist learning theories, which enhance learning through stimulus reinforcement. However, there remains a gap in providing learners with an autonomously constructive and actively engaging learning environment that fosters meaningful learning. This study, guided by social cognitive theory, designs and develops an educational game system for digital citizenship. It also explores the impact of this digital game on middle school students' digital citizenship learning achievements and their perceptions of learning motivation and cognitive load during the learning process. Additionally, lag sequential analysis is employed to identify differences in behavioral patterns between high-progress and low-progress groups in game-based learning. A total of 80 first-year middle school students participated in this study. The experimental group engaged in digital citizenship education through the digital game, while the control group learned through regular class-themed courses. The results indicate that gamified digital citizenship education positively influences students' learning achievements, reduces cognitive load, and benefits students with initially low learning motivation. Differences in behavioral patterns between high-progress and low-progress groups during game participation were

observed. Based on these findings, the study offers several recommendations and measures for educators and researchers in this field.

Maloshonok, N., Shcheglova, I., & Dremova, O. (2025). **What Is a "Healthy" Balance Between Students' Involvement in Curricular and Extracurricular Activities? Evidence From a Highly Selective Russian University**. *European Journal of Education*, *60*(3), e70138. https://doi.org/10.1111/ejed.70138
Although many researchers and policy-makers emphasise the benefits of extracurricular involvement, others state that intense extracurricular involvement might be harmful to students' achievements and development. This paper aims to estimate the "healthy" time proportion between curricular and extracurricular activities at university and what patterns of their combination with students' activities outside of campus can positively affect students' academic performance and mental health. Data from an undergraduate survey conducted at a highly selective Russian university and matched with administrative records about students' GPA (N = 2753) were utilised. The study revealed that there are cut-off points for student participation in research activities and applied projects at university, as well as volunteering and organising activities. After these cut-off points are reached, the positive effects of extracurricular involvement disappear. The findings highlight the importance of maintaining a balance between both curricular and extracurricular activities as well as making time for sleeping, socialising and leisure activities. This study provides valuable insights into optimising student involvement in activities, offering actionable recommendations for educational policy-makers and university administrators to increase student well-being and academic performance.

Mantil, A., Papay, J., Mbekeani, P. P., & Murnane, R. (2025). ***Introducing a High-School Exit Exam in Science: Consequences in Massachusetts*** (Working paper N° 34023). Consulté à l'adresse National Bureau of Economic Research, Inc website: https://EconPapers.repec.org/RePEc:nbr:nberwo:34023
Preparing students for science, technology, and engineering careers is an urgent state policy challenge. We examine the design and roll-out of a science testing requirement for high-school graduation in Massachusetts. While science test performance has improved over time for all demographic subgroups, we observe rising inequality in failure rates and retest success. English learners, almost 8% of all test-takers, account for 53% of students who never pass. We find large differences by family income, even conditional on previous test scores, that raise equity implications. Using a regression-discontinuity design, we show that barely passing the exam increases high-school graduation and college outcomes of students near the score threshold, particularly for females and students from higher-income families.

Marcenaro-Gutierrez, O. D., Prieto-Latorre, C., & Lopez-Agudo, L. A. (2025). **On the contribution of parental expectations to the academic progress of youngsters**. *International Journal of Educational Research*, *133*, 102746. https://doi.org/10.1016/j.ijer.2025.102746
This paper analyses whether parental expectations play a relevant role in determining students' progression from primary to secondary education in maths and reading. Taking advantage of longitudinal census data for the Spanish region of Andalusia, we propose alternative identification strategies to estimate the influence of expectations on students' academic success. We tackle the endogeneity problem of expectations by employing time fixed-effects and applying an instrumental variables procedure, which uses a proxy

of students' ability. The results confirm that higher parental expectations positively associate with students' achievement. Expectations are found to be a more important predictor of children's performance in reading than in mathematics, while performance in mathematics depends to a larger extent on innate students' ability. Additionally, we have found that boys' academic performance is more sensitive to parental expectations, while parents have higher educational expectations for girls. This higher parental exigency for girls in comparison to boys may be a sign of the permanence of gender roles in society.

Marôco, J. (2025). **Portugal: COVID-19 Learning Losses Through the Lenses of ILSA and Local Low Stake Assessments**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 135-152). https://doi.org/10.1007/978-3-031-69284-0_10
This chapter examines the impact of the COVID-19 pandemic on student learning in Portugal from 2018 to 2022. It highlights a decline in student performance on international assessments like PISA and TIMSS, attributing this to several factors, including shifts in education policies, pandemic-related school closures, and the devaluation of external high-stakes assessments. The chapter also analyzes the national assessment of learning losses and remedial measures taken in response to the pandemic. Comparisons with other countries' learning losses underscore the complexity of attributing the decline solely to the pandemic. Importantly, the chapter concludes that the dip in Portuguese students' performance is not solely due to the pandemic, as it began before the outbreak and worsened due to post-2015 education reform. The estimated learning losses, approximately one year of schooling, are attributed equally to school lockdowns and the consequences of ongoing education policies. Overall, the study prompts reflections on the effectiveness of these policies and the broader impact of the pandemic on student learning outcomes.

Mattei, T. S., Alves, L. R., & Rego, C. (2025). **The importance of permanence measures for the performance of quota students in Brazilian federal higher education**. *International Journal of Educational Research*, *133*, 102741. https://doi.org/10.1016/j.ijer.2025.102741
The existence of diversified higher education systems, spread across countries, does not imply that everyone has access and success. This paper deals with the difference in the performance of students in-person courses who accessed higher education through a quota system and participated in permanence measures. Based on data from the National Student Performance Exam (Enade) in 2017, 2018, and 2019 for 66,525 quota students from all federal higher education institutions (HEIs) in Brazil, we conclude that the interconnection between access and permanence policies in higher education is necessary and effectively contributes to improving the performance of quota students. The literature had already demonstrated the effectiveness of the effect of support for students. Now, in addition, this research leads to the conclusion that, among the students who benefit from the quota mechanism, there are differences in performance between those who benefit from permanence actions and the others, which is new in this research. In addition to reducing dropout rates, these measures also support educational success. The results show that students who have an interconnection between quotas and at least one permanence measure perform better compared to quota students who do not receive these measures. This difference in their academic classification of 2.3 points from the general education grade, which represents an increase of 4.57 %. The results are positive when analysed separately for improving all grades in the case of academic

scholarship distribution measures (internship scholarship, scientific initiation scholarship, extension scholarship, and mentoring/tutoring). Using a methodology such as propensity score matching, which is often used in studies of this nature, it can also be concluded that in order to improve the performance of quota students, there is a need for broader public support, a review of financial scholarships and effective coverage of pedagogical and psychological aspects.

Matthes, J., Scherrer, V., & Preckel, F. (2025). **Need for Cognition Predicts Academic Interest Development but Not the Other Way Around: A Longitudinal Study of Secondary School Students**. *Child Development*, *96*(5), 1675-1687. https://doi.org/10.1111/cdev.14262
Need for cognition (NFC) reflects the tendency to enjoy and engage in cognitive challenges. This study examines the relations between NFC and academic interest among 922 German secondary school students (academic track) assessed four times in Grades 5–7 (initial age M = 10.63, SD = 0.55; 41% female; 90% first language German) in mathematics, German, and English. Data were collected between 2008 and 2012 and were analyzed using autoregressive cross-lagged panel models. In all domains, NFC positively predicted subsequent academic interest (β = 0.03 to β = 0.17) but interest did not positively predict subsequent NFC. Findings were comparable after controlling for students' achievement, gender, socioeconomic status, and class type. They suggest that NFC is a potential facilitator of the development of academic interest in school.

McLean, A., & McVicar, D. (2025). ***Does Being Excluded from School Harm Student Achievement? Evidence from Siblings in English Population Data*** (Working paper N° 18044). Consulté à l'adresse Institute of Labor Economics (IZA) website: https://EconPapers.repec.org/RePEc:iza:izadps:dp18044
This paper presents sibling fixed effects estimates of the relationship between school exclusion and subsequent academic achievement from population-wide administrative data on English secondary school students. It complements a growing base of quasi-experimental and individual fixed effects evidence on exclusion effects in predominantly US settings. We find that being excluded is negatively associated with subsequent achievement at school. We assess the extent to which this might reflect a negative causal impact of exclusion.

Mehmood, S., Naseer, S., & Chen, D. L. (2025). **Transmitting Rights: Effective Cooperation, Inter-gender Contact, and Student Achievement**. *American Economic Journal: Economic Policy*, *17*(3), 107-130. https://doi.org/10.1257/pol.20230620
Transmitting Rights: Effective Cooperation, Inter-gender Contact, and Student Achievement by Sultan Mehmood, Shaheen Naseer and Daniel L. Chen. Published in volume 17, issue 3, pages 107-30 of American Economic Journal: Economic Policy, August 2025, Abstract: We provide experimental evidence of teac...

Mirando Montero, J. J., & Contreras, C. (2025). ***Impact of Heat Waves on Learning Outcomes and the Role of Conditional Cash Transfers : Evidence from Peru*** (N° WPS11171; p. 32). Consulté à l'adresse Word Bank website: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099202307142591354
Impact of Heat Waves on Learning Outcomes and the Role of Conditional Cash Transfers : Evidence from Peru (English)

Montolio, D., & Taberner, P. A. (2025). ***Crime at your doorstep: Gender-specific effects on university student performance*** (Working paper N° 2025/07). Consulté à l'adresse Institut d'Economia de Barcelona (IEB) website: https://EconPapers.repec.org/RePEc:ieb:wpaper:doc2025-07
Student performance at university significantly influences individual decisions and future opportunities, especially in labour markets. This paper analyses the impact of local crime on student performance during higher education, with a focus on potential gender differences. Following students over their bachelorâ€™s years, the identification strategy exploits granular local crime variation â€“ violent and non-violent crimes â€“ near studentsâ€™ residences before sitting a final exam. We consider both spatial and temporal patterns of crime exposure by estimating a panel data model with student, exam and district-month fixed-effects to provide causal estimates. Our findings suggest that violent crimes have a negative impact on student performance, while non-violent have no significant effect. Notably, the results are mainly driven by high-ability female students, with suggestive evidence that male students in the bottom or middle parts of the grade distribution are also affected.

Mumford, K., Patterson, R., & Yim, A. (2025). ***College Course Shutouts*** (Working paper N° 33800). Consulté à l'adresse National Bureau of Economic Research, Inc website: https://EconPapers.repec.org/RePEc:nbr:nberwo:33800
What happens when college students cannot enroll in the courses they want? Using conditional random assignment to oversubscribed courses at a large public university, we find that a course shutout reduces the probability that a student ever takes any course in the corresponding subject by 30%. Course shutouts are particularly disruptive for female students, reducing women's cumulative GPAs, probability of majoring in STEM, on-time graduation, and early-career earnings. In contrast, shutouts do not appear to be disruptive to male students' long-run outcomes, with one exception—shutouts significantly increase the probability that men choose a major from the business school.

Oates, T. (2025). **England: Turbulent Years—PISA 2022 and COVID-19 School Disruption**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 51-63). https://doi.org/10.1007/978-3-031-69284-0_4
Like many nations, England suffered a decline in scores in PISA in 2022, following important improvement. It declined less than the other nations of United Kingdom, which are in different stages of curriculum renewal and development. This chapter examines key events in England's experience of COVID-19. It explores the nature and extent of COVID-19 impact in England and compares outcomes with other key nations. It suggests that there is strong, continuing and complex COVID-19 impact on education and this is likely to continue into the 2030's. It examines how this poses a highly distinctive public policy challenge which so far has been underestimated with inadequate remedy.

Pais, M. E. M., Moriña Díez, A., & Morgado, B. (2025). **What is university success? Graduates with disabilities define it**. *Higher Education*, *90*(1), 69-87. https://doi.org/10.1007/s10734-024-01308-9
This article explores the concept of university success from the perspective of 95 Spanish graduates (62.1% women and 37.9% men) with different types of disabilities, identifying situations in which the participants felt that they were successful at university. The data of

this qualitative study were gathered through a semi-structured interview and analyzed with an emerging and progressive system of categories and codes. According to the obtained results, university success is a dynamic and multidimensional concept that consists of different elements, and it is defined through eight components: graduating, attaining the set goal, learning process, social experience, personal growth, professional success, obtaining good marks, and recognition. These results must be considered by universities to promote success among students with disabilities, by fostering their participation in the university experiences and offering them opportunities to attain their academic and professional goals. Future research on university success must delve further into the concept of university success from a holistic perspective that contemplates all these elements.

Quintana, R., Park, S., & Kang, S. (2025). **Causal decomposition analysis in disparities research: investigating the effect of self-efficacy on the gender gap in STEM**. *Quality & Quantity*, *59*(4), 3327-3351. https://doi.org/10.1007/s11135-025-02110-0
The underrepresentation of women in science, technology, engineering and mathematics (STEM) fields has been a subject of extensive research and policy debate. However, there is limited clarity regarding the specific mechanisms that generate these disparities, and which interventions are most effective in reducing the gap. In this study, we use causal decomposition analysis to estimate how the gender gap in STEM participation would change if we were to intervene on women's self-efficacy beliefs in mathematics. Women tend to underestimate their abilities in math-related fields, which can affect their educational and career choices. The question we ask is to what extent the gender gap in individuals' enrollment in STEM majors and identification with mathematics would be reduced if self-efficacy in mathematics were set to be equal across gender categories. The results suggest that equalizing this target factor will reduce the observed disparities in math identity by 53%, and in the enrollment of STEM majors by 2.5%. The modest influence of self-efficacy on enrollment disparities suggests that it is not the predominant factor. We discuss the implications of our empirical findings, as well as how causal decomposition analysis can benefit social and behavioral disparities research.

Rémeau, M., Raffy, G., & Borst, G. (2025, août). ***Understanding the Relations Between School Well-Being and Academic Achievement***. Consulté à l'adresse https://hal.science/hal-05229786

Sabater-Grande, G., Herranz-Zarzoso, N., & García-Gallego, A. (2025). **The Role of Monetary Incentives and Feedback on How Well Students Calibrate Their Academic Performance**. *European Journal of Education*, *60*(3), e70140. https://doi.org/10.1111/ejed.70140
Students' accurate monitoring of their own performance is essential for achieving successful learning processes. In this work, we have aimed at analysing the role played by monetary incentives and by metacognitive feedback in improving students' miscalibration of their academic performance. A randomised field experiment was implemented in which undergraduate students enrolled in an intermediate Microeconomics course were offered the possibility to estimate their academic performance in that course. Global judgements were elicited immediately before (prediction) and immediately after (postdiction) answering each of three multiple choice exam-tests that students covered along the semester. The predictive (postdictive) bias in

each test was calculated as the difference between the grade predicted (postdicted) by the student and her actual grade. The experiment has allowed for analysis of sole or joint effects of monetary incentives and metacognitive feedback interventions in calibration accuracy. Predictive as well as postdictive biases have shown to be independent of the treatment variables. Moreover, support has turned up for the Dunning-Kruger effect, in the sense that students' academic record appeared as a positive significant predictor of judgements' accuracy of their own performance. Additional potential covariates like students' cognitive ability, risk attitudes, and personality traits have been found to be non-significant predictors of students' miscalibration. In terms of educational policy, our findings suggest that instructors should carefully weigh up the financial costs of monetarily incentivising students to improve the accuracy of their performance predictions, particularly when such intervention—whether implemented alone or in combination with metacognitive feedback—may not lead to significant improvements in metacognitive accuracy.

Salem, M., & Shaalan, K. (2025). **Unlocking the power of machine learning in E-learning: A comprehensive review of predictive models for student performance and engagement**. *Education and Information Technologies*, *30*(13), 19027-19050. https://doi.org/10.1007/s10639-025-13526-4
The proliferation of digital learning platforms has revolutionized the generation, accessibility, and dissemination of educational resources, fostered collaborative learning environments and producing vast amounts of interaction data. Machine learning (ML) algorithms have emerged as powerful tools for analyzing these complex datasets, uncovering patterns and trends that offer deeper insights into student performance and engagement. This systematic review examines the application of ML models in e-learning, synthesizing current research findings, methodologies, and challenges. Key contributions include the categorization of ML models based on their applications, an analysis of their predictive accuracy in forecasting student performance and engagement, and the identification of critical data types and sources that enhance model effectiveness. The study highlights ML's transformative potential in personalizing educational experiences, enabling targeted interventions, and improving learning outcomes. Furthermore, it explores the role of ML in facilitating data mining activities, predictive algorithms, and outcome-driven educational strategies within diverse online learning environments. By addressing gaps in the literature, this review not only underscores the practical implications of ML in e-learning but also identifies future research directions aimed at advancing the integration of ML technologies in educational systems. These insights provide a foundation for educators, researchers, and technologists to harness ML for enhancing teaching and learning processes.

Sand, E., & Levy, G. (2025). ***The Effect of Teachers' Cognitive Skills on Students' Educational Achievements*** (Working paper N° 2025.04). Consulté à l'adresse Bank of Israel website: https://EconPapers.repec.org/RePEc:boi:wpaper:2025.04
We investigate the effects of various measures of science teachers' cognitive skills—based on academic degrees, math matriculation scores, and psychometric math scores—on their students' educational achievements. Utilizing detailed administrative data of 12th grade students and their science teachers, spanning the years 2012 to 2019, we find that teachers' cognitive abilities—mainly those measured by math matriculation scores—have clear and positive effects on both students' short-term matriculation test scores and several long-term measures of academic success, such as the probability of

pursuing post-secondary studies at a research university and the probability of choosing a STEM major subject. Additionally, teachers with higher cognitive abilities are shown to lead to higher gains, particularly among students with stronger aptitude and same-gender student-teacher matching.

Shi, H., & Wang, Y. (2025). **High School EFL Students' Pre-Exam Academic Emotions and Their Associations With Academic Achievement: A Latent Profile Analysis**. *European Journal of Education*, *60*(3), e70185. https://doi.org/10.1111/ejed.70185
Among the previous studies examining academic emotions and academic achievement in EFL contexts, few studies have been conducted on heterogeneous patterns of pre-exam academic emotions among English-as-a-foreign-language (EFL) students in high schools. To address this gap, this study aimed to investigate the pre-exam academic emotion profiles and examine their effects on academic achievement. A sample of 391 Chinese high school students completed a questionnaire survey. The latent profile analysis identified three pre-exam academic emotion profiles with unique characteristics: positive-emotion-driven learners (PED Type) (prevalence rate: 31%), bimodal-emotion learners (BE Type) (prevalence rate: 56%) and negative-emotion-driven learners (NED Type) (prevalence rate: 13%). Subsequent analysis revealed significant correlations between the identified emotion profiles and academic achievement. Specifically, the PED Type and BE Type students performed with relative consistency in academic achievement. Meanwhile, both groups reported significantly superior academic achievement compared to the NED Type group. These findings contribute to a deeper understanding of latent patterns of academic emotions in the Chinese EFL settings and offer insightful pedagogical implications for L2 emotion-sensitive interventions.

Shin, D. D., Park, S., Kim, J. A., Nagengast, B., & Bong, M. (2025). **Examining how teachers' characteristics impact student motivation and achievement across subject, school level, gender, and prior achievement level**. *Social Psychology of Education*, *28*(1), 145. https://doi.org/10.1007/s11218-025-10104-x
Teachers' characteristics can significantly influence the quality of student functioning. Yet, there has been little exploration regarding which attributes matter to which outcomes, and for whom, and under what conditions. In this study, we considered four characteristics as perceived by students, namely competence, student-centered instruction, closeness with students, and enthusiasm, and examined how they predicted students' self-efficacy, interest, and achievement. We also tested whether the predictive relationship differed by subject area (Korean vs. math), school level (middle school vs. high school), gender, and prior achievement. To address these questions, data from the Gyeonggi Educational Panel Study 2012 (GEPS 2012), which included responses from over 5,500 students in Grades 7 to 12, was subjected to two-level regression analyses. The results showed that the considered characteristics made significant differences in students' motivation and achievement across subjects and school levels, both independently and by interacting with the gender and prior achievement of students, even after controlling for their prior scores. More specifically, teachers perceived to be competent and relatable benefited all students across different contexts, although high-achieving students tended to reap even greater benefits from them. However, teachers' implementation of student-centered instructional strategies produced conflicting results as it enhanced the motivation of low-achieving students but hurt the achievement of high-achieving students. Our findings add to the existing literature on the effects of

teacher characteristics and provide practical insights for teachers to tailor their support to diverse students in different learning contexts.

Tarannum, T., Moniea, H. M., Sarah, M. K., & Miah, M. K. (2025). **Internet usage patterns and academic performance: A comparative study of public and private university students in Bangladesh**. *Education and Information Technologies*, *30*(13), 18397-18431. https://doi.org/10.1007/s10639-025-13502-y
This study investigates the impact of internet use on the academic performance, behavior and perceived learning of university students in Bangladesh. The sample size was determined using Slovin's formula, with data collected via convenience sampling from 523 current undergraduate and postgraduate university students in Bangladesh. The responses were analyzed using the statistical tools SPSS version 26 and AMOS graphics. The structural equation model identified four domains associated with students' internet usage: internet browsing, streaming entertainment, social networking, and online gaming and their effects on academic performance. The findings suggest that online gaming ($\beta = -2.56$, $P < .05$) and internet browsing ($\beta = -4.35$, $P < .05$) were negatively and significantly associated with academic performance. Conversely, streaming entertainment showed a positive and significant association ($\beta = 3.89$, $P < .05$) while the domain of social networking exhibited a positive but insignificant association ($\beta = 1.36$, $P > 0.05$) with academic performance. The research further analyzed the effect of external factors (types of universities, parental involvement, and socioeconomic factors) on the relationship between internet usage and academic performance. Furthermore, the results revealed that the type of university moderates the relationship between internet use and academic performance. The current research might provide empirical insights into the long-term educational implications of the internet and assist educators and academic administrators in creating efficient methods and regulations. Finally, the impact of various internet platforms on academic performance could potentially be captured through subsequent longitudinal studies that emphasize intercultural comparisons between advanced and developing nations.

Taşkın, N., & Kokoç, M. (2025). **Behavioural engagement, academic dishonesty, and performance gaps: Comparing online and paper–pencil based tests in an online learning context**. *Education and Information Technologies*, *30*(13), 18895-18919. https://doi.org/10.1007/s10639-025-13514-8
This study examines the growing issue of academic dishonesty in online assessments, a challenge intensified by the expansion of digital learning platforms. Specifically, it investigates the relationship between students' online engagement and their performance in online versus traditional paper-and-pencil tests. Employing a cross-sectional research design, data were collected from 1,022 students across various faculties at a state university. Regression analysis revealed that behavioural engagement significantly predicted performance in paper–pencil tests but not in online assessments. Moreover, students scored higher in online tests, yet the weak correlation between scores across both formats raises concerns about the validity of online assessments in accurately reflecting student learning. These findings underscore the necessity of enhancing online assessment integrity and leveraging engagement metrics to prevent academic dishonesty. The study suggests that educators, policymakers, and administrators should consider student engagement as a key factor in fostering a culture of academic honesty while supporting students' academic performance.

Tontini, L., & Moriña, A. (2025). **Disclosure dilemmas: Experiences of university graduates with invisible disabilities**. *International Journal of Educational Research*, *133*, 102694. https://doi.org/10.1016/j.ijer.2025.102694
Students with invisible disabilities often face challenges in deciding whether to disclose their condition in university settings. This article explores the disclosure process of invisible disabilities in Italian and Spanish university graduates, using a phenomenological approach with 29 participants. Its purpose is to analyse to whom, when, what, how, and why these graduates decide to share their disability in the university context. The data obtained through semi-structured interviews co-constructed with the participants were analysed with an inductive category system. The results indicate that all graduates disclosed their disability at some point to university community members, including administrative staff, faculty, or peers, driven by diverse motivations such as accessing support services, facing moments of crisis, or building trust within relationships. This disclosure process is subjective, dynamic, and ongoing, shaped as much by fear of stigma as by individual needs and the university's social context. It is concluded that a safe and welcoming environment at university is essential, where students feel free to disclose their disability and seek support if they wish to do so.

van der Berg, S., & Böhmer, B. (2025). **South Africa: COVID-19 Learning Losses and Attempts at Recovery in a Poorly Performing and Unequal Education System**. In N. Crato & H. A. Patrinos (Éd.), *Improving National Education Systems After COVID-19: Moving Forward After PIRLS 2021 and PISA 2022* (p. 153-169). https://doi.org/10.1007/978-3-031-69284-0_11
The COVID-19 pandemic significantly affected education in South Africa. School closures, rotational timetabling, remote learning challenges and higher absenteeism compounded educational disparities. PIRLS 2021 results demonstrate significant learning loss in Grade 4 reading achievement, with a decline of 31 PIRLS points since 2016, equivalent to 50–60% of a year's learning. The proportion of extremely low performers doubled to over a quarter. Socio-economically disadvantaged students were disproportionately affected. Pandemic-induced curriculum adaptations and lenient promotion policies accelerated student progression but failed to address learning deficits, raising concerns about the affected cohorts' educational and labour market prospects. Insufficient funding and coordination of targeted recovery strategies hinder learning recovery.

Varis, S., Tolvanen, A., Metsäpelto, R.-L., & Poikkeus, A.-M. (2025). **Student selection into initial teacher education in Finland: Predicting performance on the university entrance exam (VAKAVA) based on logical reasoning ability**. *International Journal of Educational Research*, *133*, 102745. https://doi.org/10.1016/j.ijer.2025.102745
This study examines the association between applicants' success in the 2021 university entrance exam for initial teacher education in Finland, known as the VAKAVA exam, and their logical reasoning abilities to provide evidence of criterion-related validity. The data consists of applicants' scores on the VAKAVA exam, which reflect their cognitive processing skills, and the abbreviated International Cognitive Ability Resource test (ICAR16; N = 403). The ICAR16 is a short multiple-choice assessment including four scales that estimate the cognitive skills of fluid reasoning and visual-spatial reasoning. The findings supported the proposed four-factor structure of the ICAR16 in the examined sample. However, the second-order factor, which was interpreted to encompass general logical reasoning ability measured by the ICAR16, was used in further statistical analysis.

The results indicated that ITE applicants' logical reasoning abilities accounted for approximately 29% of their performance on the VAKAVA exam. These findings contribute to the literature on the validity of measures for student selection in teacher education programs.

Voisin, C., Guez, A., & Piacentini, M. (2025). ***Improving accessibility in PISA: Guidelines for revising and designing PISA items*** (OECD Education Working Papers No 333; 333e éd.). https://doi.org/10.1787/aa90f707-en

Vorapanya, S. (2025). **Issues around the screening process for students with SENs in inclusive schools in Lop Buri Province, Thailand**. *International Journal of Inclusive Education*, *29*(11), 1987-2001. https://doi.org/10.1080/13603116.2024.2327525

A systematic screening process aims to prevent students from school failure and other salient concerns related to students' complications with health and psychological risks. The situation of the screening process for at-risk primary school students in Lop Buri province, Thailand is in question. This study thus aims to investigate (1) the current situation of assessment for at-risk students in hospitals; (2) the existing screening process situation in primary school environments; (3) how parents of students with SENs support screening processes. This qualitative study acquired data from interviewing seven medical screeners, eleven classroom teachers and nine parents of SEN students. From the data analysis, seven different themes emerged among insightful data from the three groups of participants: screening process from school to hospital; shortage of screening tools' training; inadequate medical personnel; complications of psychiatric disorders; local school practices differ with national educational policies; no for identification card and live unhealthy lives being within a low-SES bracket.

Wang, W., Khasawneh, M. A. S., Sarabani, L., & Ismail, S. M. (2025). **Investigating the Influence of Positive Classroom Management Strategies on Academic Buoyancy, Academic Engagement, Psychological Well-Being and Language Achievement: Visions From EFL Learners**. *European Journal of Education*, *60*(3), e70149. https://doi.org/10.1111/ejed.70149

This study examined the impact of positive classroom management techniques on language learners' academic buoyancy, engagement, psychological well-being and language achievement. Grounded in the theoretical framework of positive psychology, the research adopted a concurrent mixed-methods design, combining qualitative interviews with quantitative assessments to provide a comprehensive understanding of the phenomenon. The study involved 50 lower-intermediate language learners aged 18 to 23, who were randomly assigned to either an experimental group or a control group. The experimental group was exposed to positive classroom management interventions, while the control group participated in traditional teacher-fronted sessions. The qualitative findings revealed that positive classroom management strategies significantly enhanced the EFL learners' academic buoyancy, engagement and psychological well-being. Furthermore, the quantitative outcomes demonstrated a statistically significant improvement in academic achievement among the experimental group, with these learners outperforming their counterparts in the control group on posttest measures. These results offer valuable implications for EFL teachers, materials developers, syllabus designers and policymakers, emphasising the importance of integrating positive classroom management strategies into educational practices and policies to foster holistic learner development.

Xiao, J., Chen, M., Yang, Y., & Liu, M. (2025). **An exploratory multimodal study of the roles of teacher-student interaction and emotion in academic performance in online classrooms**. *Education and Information Technologies*, *30*(11), 15507-15527. https://doi.org/10.1007/s10639-025-13426-7
Teacher-student interaction is critical for providing learners with support and maintaining effective communication during the teaching process. The online teacher-student interaction mode, has posed challenges to the effectiveness of online classes. However, how to conduct effective interaction in online classes to improve learning outcomes remains unclear. This study used multimodal data analysis of platform behavior and emotional data to investigate the impacts of teacher-student interaction and emotions on students' academic performance in an online classroom setting. Findings indicate that adult learners' interactive behaviors, particularly the number of podium appearances and the number of rewards received, positively affect their quiz performance in real time. Additionally, negative emotion frequency collected within a time window shorter than the entire online class was positively correlated with quiz performance. The preliminary results of this study inspire and guide teachers in understanding classroom dynamics and optimizing the teaching process effectively and promptly.

Xu, F., Wenhui, K., & Pei, J. (2025). **Exploring the effect of digitization on education: An empirical analysis based on PISA 2022**. *Education and Information Technologies*, *30*(11), 15891-15929. https://doi.org/10.1007/s10639-025-13414-x
Currently, countries all over the world are deeply promoting the digital transformation of education. There is a lack of empirical research on the relationship between education digitization and education effectiveness. This study aims to explore the contribution of education digitization to education effectiveness through empirical research. This study first constructs a theoretical model of the impact of education digitization on education effectiveness based on relevant theories. The original dataset of the 2022 PISA mainly consists of mathematics, reading, and science assessment scores obtained through machine tests or paper assessments and the results of the generic student questionnaire covering multiple measurement dimensions such as ICT familiarity. This study conducted an empirical analysis based on 53,908 data selected from 2022 PISA data. The results show that digitization does not have a significant direct positive effect on educational effectiveness but indirectly affects educational effectiveness by influencing teachers' teaching behavior and students' learning behavior. It is found that teachers' teaching behavior and students' learning behavior respectively play an intermediary role in the influence of digitization on educational effectiveness, but at the same time, teachers' teaching behavior and students' learning behavior also play a chain intermediary role in the influence of digitization on educational effectiveness. This study also shows that grade and gender are important moderating variables of the influence of digitization on educational effectiveness. Based on the research results above, relevant measures can be taken to promote the development of digital transformation of education.

Yan, Y., & Zhang, J. (2025). **Exploring the Interplay of Academic Resilience, Cognitive Appraisals of GenAI, and Academic Engagement Among Pre-Service Chinese as a Foreign Language Teachers**. *European Journal of Education*, *60*(3), e70202. https://doi.org/10.1111/ejed.70202
This study examines the impact of academic resilience on the engagement of Chinese as a foreign language (CFL) pre-service teachers amid the disruption caused by

generative AI (GenAI). Using the Conservation of Resources theory as a foundation, we suggest that resilience helps reduce vulnerabilities by influencing how GenAI is perceived—either as a challenge or an obstacle. Data from 365 CFL pre-service teachers were analysed using structural equation modelling. The findings show a strong direct effect of resilience on engagement (β = 0.542) and reveal two pathways: resilience increased challenge appraisals (β = 0.179) and decreased hindrance appraisals (β = −0.228). Although challenge appraisals had a weak positive effect on engagement (β = 0.100), hindrance appraisals had a significantly stronger negative impact (β = −0.257). Notably, resilience fostered engagement primarily by reducing hindrance appraisals (mediated β = 0.058), while the challenge pathway was not significant. The model accounted for 45.6% of the variance in engagement, highlighting both the disruptive potential of GenAI and the systemic vulnerabilities of pre-service teachers. The results suggest that resilience interventions should focus on alleviating AI-related threats, such as career anxieties, rather than emphasising perceived opportunities. This study redefines resilience as a crucial protective factor for educators facing AI-driven transitions, calling for pedagogical approaches that address technological disruptions as both psychological and professional challenges.

Yang, M., Jiang, S., Li, B., Herman, K., Luo, T., Moots, S. C., & Lovett, N. (2025). **Analysing nontraditional students' ChatGPT interaction, engagement, self-efficacy and performance: A mixed-methods approach**. *British Journal of Educational Technology*, *56*(5), 1973-2000. https://doi.org/10.1111/bjet.13588
Generative artificial intelligence brings opportunities and unique challenges to nontraditional higher education students, stemming, in part, from the experience of the digital divide. Providing access and practice is critical to bridge this divide and equip students with needed digital competencies. This mixed-methods study investigated how nontraditional higher education students interact with ChatGPT in multiple courses and examined relationships between ChatGPT interactions, engagement, self-efficacy and performance. Data were collected from 73 undergraduate and graduate students through chat logs, course reflections and artefacts, surveys and interviews. ChatGPT interactions were analysed using four metrics: prompt number, depth of knowledge (DoK), prompt relevance and originality. Results showed that ChatGPT prompt numbers (β = 0.256, p < 0.03) and engagement (β = 0.267, p < 0.05) significantly predicted performance, while self-efficacy did not. Students' DoK (r = 0.40, p < 0.01) and prompt relevance (r = 0.42, p < 0.01) were positively correlated with performance. Text mining analysis identified distinct interaction patterns, with 'strategic inquirers' demonstrating significantly higher performance than 'exploratory inquirers' through more sophisticated follow-up questioning. Qualitative findings revealed that while most students were first-time ChatGPT users who initially showed resistance, they developed growing acceptance. Still, students tended to use ChatGPT sparingly and, even then, as only a starting point for assignments. The study highlights the need for targeted guidance in prompt engineering and AI literacy training to help nontraditional higher education students leverage ChatGPT more effectively for higher-order thinking tasks. Practitioner notes What is already known about this topic Nontraditional students face unique challenges in higher education, such as limited technological literacy and digital access. The emergence of generative AI tools presents both opportunities and challenges for addressing educational disparities. Existing studies on AI implementation predominantly focus on traditional students. What this paper adds Empirical evidence of how nontraditional students interact with ChatGPT through multiple metrics (prompt number,

DoK, relevance and originality). Distinct interaction patterns and their relationship to performance outcomes. The relationship among ChatGPT interactions, engagement, self-efficacy and performance. Implications for practice and/or policy Need for explicit instruction in prompt engineering as a critical skill for higher-order thinking. Importance of providing targeted technology training and self-paced learning resources for nontraditional students. Value of developing comprehensive AI literacy training that addresses both tool capabilities and limitations.

Zhang, Y., & Yang, S. (2025). **What Happens After Parental Neglect? Its Enduring Adverse Effect Through a Vicious Cycle Between Psychological Distress and Student Recognition**. *European Journal of Education*, *60*(3), e70182. https://doi.org/10.1111/ejed.70182
Abundant literature has documented the far-reaching adverse impacts of parental neglect on later intrapersonal and interpersonal outcomes. However, the existing research has been limited, neglecting to investigate its enduring effects on various development domains simultaneously. Based on the developmental cascade model, this study investigates the longitudinal associations among parental neglect, psychological distress, and student recognition using a three-wave longitudinal design with 310 secondary school students in Chengdu, China. The results revealed that parental neglect was consistently and significantly associated with subsequent changes in psychological distress and student recognition. Additionally, the findings suggested a vicious cycle between student recognition and psychological distress, initiated by parental neglect, with psychological distress playing a more pivotal role in the risk process. These findings highlight the enduring negative effects of parental neglect on adolescents' subsequent development through dynamic interactions across different development domains. In addition to primary and secondary prevention strategies to reduce adolescents' experiences of parental neglect, a renewed focus on later-stage interventions—especially those addressing psychological distress—is essential to breaking the vicious cycle.

Valeurs

Asrar-ul-Haq, M., Raza, Z., & Akhtar, M. W. (2025). **Community development through university social responsibility: precursors and outcomes**. *Asia Pacific Education Review*, *26*(3), 581-591. https://doi.org/10.1007/s12564-023-09850-4
Since the funding of higher education has shifted from public to private modes, universities have adopted business models to finance their operations. On the one hand, social responsibility initiatives help universities attract and retain students. On the other hand, it plays a significant role in the development of society as a whole by enhancing institutional capacity and character building of students. Using social influence theory, we examined the mediating effect of university social responsibility in the relationship between precursors and outcomes using a multi-wave data from 359 university students. The results demonstrate that university social responsibility mediates between precursors (education on environmental values, education on social values, and internal management) and outcomes (student engagement and social behavior). This study contributes to the literature by providing an underlying mechanism suggesting that environmental values, educational social values, and internal management as precursors that produce positive effects on students' outcomes (engagement and social behavior).

AW Cheikh, T., Bagnomo, M. N., Baronnat, A., Clément, L., Gnakou Essodèyouna, A., Kanitom, K., … Rambaud, L. (2025). ***État des lieux des enjeux de l'Éducation à l'Environnement et au Développement Durable au Togo, Sénégal, Burkina Faso et Madagascar*** (p. 29). Consulté à l'adresse Coalition Education website: https://www.coalition-education.fr/depotWeb/Rapport_EEDD-2-pdf-pdf.pdf
État des lieux des enjeux de l'Éducation à l'Environnement et au Développement Durable au Togo, au Sénégal, au Burkina Faso et à Madagascar.

Bookbinder, A., Reynolds, K. A., Leng, D., Tyack, L., Khorramandel, L., & Ummugal, B. (2025). ***TIMSS Insights: Environmental Awareness in TIMSS 2023: Paterns in Achievement, Attitudes, Behaviors, and Contexts***. Consulté à l'adresse International Association for the Evaluation of Educational Achievement (IEA) website: https://doi.org/10.6017/lse.tpisc.qx7218

Briole, S., Gurgand, M., Maurin, É., McNally, S., Ruiz-Valenzuela, J., & Santín, D. (2025). **The Making of Civic Virtues: A School-Based Experiment in Three Countries**. *American Economic Journal: Economic Policy*, *17*(3), 496-521. https://doi.org/10.1257/pol.20230612
The Making of Civic Virtues: A School-Based Experiment in Three Countries by Simon Briole, Marc Gurgand, Éric Maurin, Sandra McNally, Jenifer Ruiz-Valenzuela and Daniel Santín. Published in volume 17, issue 3, pages 496-521 of American Economic Journal: Economic Policy, August 2025, Abstract: This...

Campo, L., Delgado, N., Etxabe-Urbieta, J. M., Kanso, H., & Gueye, M. L. (2025). **Relationship Between the Use of ChatGPT and Plagiarism in Higher Education: The Influence of Gender, Age and Previous Academic Results**. *Innovative Higher Education*. https://doi.org/10.1007/s10755-025-09830-z
Abstract While artificial intelligence (AI), exemplified by tools like ChatGPT, has undoubtedly ushered in numerous advantages within the realm of education, its implementation also underscores a range of constraints and challenges. The objective of the current study is to examine the association between the frequency of the use of ChatGPT for academic purposes and the extent of plagiarism, while also investigating the influence of personal variables such as gender, age, academic year, and educational background measured by previous results. To achieve this, a sample comprising 503 university students from Spain was recruited, and they were asked to complete a set of questionnaires designed to assess the constructs mentioned. The findings indicated that there is a correlation between the frequency of use of ChatGPT and Plagiarism, but causality was not found. Besides, a moderator effect of age and academic year on the relationship between the use of ChatGPT and Plagiarism was found. These findings suggest the need to address certain factors of plagiarism among higher education students, such as awareness of plagiarism or the management of perceptions about the academic requirements.

Chen, S., & Ma, L. (2025). **Municipal education levels and citizen political participation: a study based on Swedish municipal panel data for 2000–2013**. *International Journal of Educational Research*, *133*, 102724. https://doi.org/10.1016/j.ijer.2025.102724
Based on unbalanced panel data from 290 municipalities in Sweden spanning from 2000 to 2013 and employing a fixed effect model, this paper examines whether the average political participation rate of municipal citizens is driven by the average educational level of municipal citizens. We find that: (1) An increase of 1 % in the proportion of the population with at least three years of secondary education leads to an average

increase of 0.3 % in municipal voter turnout, which is statistically significant at the 1 % level. The results show that the average educational level of municipal citizens significantly contributes to the average political participation rate of municipal citizens, and this finding remains valid through the robustness test. (2) The contribution of an increase in the average level of education of municipal citizens to their average rate of political participation is moderated by differences in the proportion of the population with foreign citizenship and by municipal groupings. (3) Municipal population size does not significantly affect the study's primary model utility.

Cheutin, B., Mesloub, S.-A., & Castaing, C. (2025). **Les simulations de conférences des Nations unies sur les changements climatiques : une expérience pédagogique originale en France**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w1
Depuis 2023, l'Agence française de développement (AFD) et le ministère de l'éducation nationale se sont associés avec l'ONG Office for Climate Education pour développer des simulations de conférences des Nations unies sur les changements climatiques (COP). Les élèves sont invités à incarner différents acteurs de ces négociations : États, ONG, entreprises privées, journalistes. Ce dispositif éducatif et pédagogique innovant propose une expérience originale, à la confluence de plusieurs enjeux éducatifs majeurs : notamment l'ouverture à la complexité des thématiques du développement durable, l'esprit critique et le rapport à l'information. En octobre 2024, 75 lycéens venus de France et de plusieurs pays ont ainsi participé à une grande simulation de COP climat.

Chusseau, E., Crosse, M., Defente, V., Devos, L., Herve-Pecot, F., Garcia-Arjona, N., … Peterson, C. (2025). **L'intelligence artificielle, la transition socio-environnementale : une mise en débat à partir de récits fictions**. *Questions de Pédagogies dans l'Enseignement Supérieur*. Présenté à Brest, France. Consulté à l'adresse https://hal.science/hal-05172715
L'argumentaire de ce colloque QPES plante bien le décor des nombreuses questions bouleversantes qui assaillent aujourd'hui l'enseignement supérieur. Parmi celles-ci, nous en retenons plus particulièrement deux, l'intelligence artificielle (IA) générative et la transition socio-environnementale (TSE), pour en faire l'objet du débat proposé. Prenant appui sur une expérience que nous conduisons actuellement dans le cadre d'un séminaire en pédagogie de l'enseignement supérieur et d'une formation de 3ème cycle (écriture de récits fictions, mise en débat avec la perspective de dégager des prises en compte pédagogiques de ces deux thématiques et de leur interrelation), nous proposons de partager et élargir ce débat lors de ce colloque QPES. Ce travail préalablement réalisé servira de base de discussion pour questionner la manière dont les thématiques de l'IA et de la TSE peuvent être appréhendées dans l'enseignement supérieur : quel(s) savoir(s) remettre en question ? quel(s) nouveau(x) savoir(s) élaborer ? quelle posture construire ? … Notre proposition de mise en débat vise deux objectifs : a) partager nos réflexions et les dynamiser grâce aux discussions ; b) partager notre méthode pour en faciliter la ré-exploitation dans d'autres contextes.

Crowley, C. B., Lewis, J. M., Yu, M., & Coloma, R. S. (2025). **Local work on global educational justice: Three Detroit projects reimagining university-school partnerships**. *International Journal of Educational Research*, *133*, 102673. https://doi.org/10.1016/j.ijer.2025.102673
In this article, we describe three university-school partnerships (TeachDETROIT, Metro Detroit TRUE Project, and Archives in the Classroom and Community) that are designed

to constitute democratic micro-institutions in Detroit, Michigan. These three partnerships represent the university's commitment to its urban mission, and endeavor to practice "radical neighborliness" as a way to build alternative institutions that are local, equity-focused, and contributing to human improvement. We argue that such partnerships can create democratic Third Spaces, rooted in mutual respect and equity. These spaces offer hope and demonstrate that meaningful change is possible, even amid educational uncertainties and political shifts. We also discuss how participants in these partnerships engage with and learn about local contexts as instances of the global, emphasizing the mutual exchange of knowledge and the interplay between local and global perspectives. This study contributes to the growing literature on equitable university-school partnerships by demonstrating how intentionally designed collaborations can disrupt traditional power dynamics and create sustainable educational impacts in urban ecologies.

Cuenca Vivanco, C., & Rojas, M. T. (2025). **Social Justice Teacher Education in Latin America for a Post-COVID-19 World: A Systematic Review**. *Social Justice Research*, *38*(3), 376-405. https://doi.org/10.1007/s11211-025-00457-1
Social Justice Teacher Education (SJTE) prepares teachers to confront issues of inequity and marginalization within educational contexts—an endeavor that has become increasingly relevant in highly unequal regions in the aftermath of the COVID-19 pandemic. This systematic review maps research on social justice (SJ) theoretical approaches and the production of empirical knowledge about SJTE in Latin American, identifying predominant research foci, theoretical currents, and regional findings. Following PRISMA guidelines, the review included a meta-analysis (metatheory/meta-data) of 52 indexed works (WoS, Scopus, and Scielo Citation Index) published up to 2022. The results show that most research is concentrated in Chile and Brazil, and that theoretical approaches intersect U.S.-based SJTE frameworks and Latin American or international critical educational theories, emphasizing the importance of situated and community-based pedagogies. Most works focus on preservice teachers' conceptions of SJ, or the challenges faced by teacher educators during the design or implementation of specific SJTE activities. Fewer studies examine SJ-oriented teaching activities designed and implemented by preservice teachers as part of the fieldwork experiences, with the purpose of transforming the realities of marginalized students in local communities. The studies underscore the need to position care, affectivity, and the development of empathy as guiding principles of SJTE and teaching, especially in contexts of continuous political unrest. Further analysis of the design, implementation, and (self-)evaluation of SJTE programs' pedagogical models, beyond punctual experiences, would contribute to understanding how their decision-making proccesses enable—or constrain—the development of socially just programs, as well as which pedagogical practices facilitate the development of the competences that their future teachers will need to work in challenging post-COVID-19 educational systems.

Delplancke, M., & Chalak, H. (2025). **La fresque du climat pour former les enseignants à l'éducation au changement climatique : quelle éducation au politique possible ?** *Éducation & didactique*, (2), 49-63. https://doi.org/10.4000/14b8a
Le changement climatique est un problème dont la complexité peut être abordée par un travail autour de la fresque du climat, outil issu de la médiation scientifique largement utilisé par les enseignants et les formateurs. Nous étudions ses potentialités et ses limites du point de vue d'une éducation au politique en analysant son utilisation en formation

des enseignants du premier et du second degré en SVT. Nos résultats suggèrent que la fresque contribue à saisir certaines dimensions du changement climatique, mais que les cartes de la fresque à elles seules, rendent difficile l'accès à une problématisation socioscientifique et politique du changement climatique. Cela débouche sur l'importance d'accompagner cet outil mobilisé en formation d'une réflexion critique, pour aller vers des formes plus complexes de raisonnements où les enjeux politiques sous-jacents sont questionnés.

Driggers, K., & Boyles, D. (2025). **Educational Implications of Artificial Intelligence: Peirce, Reason, and the Pragmatic Maxim**. *Educational Theory*, *75*(4), 682-701. https://doi.org/10.1111/edth.70028
Although Charles Sanders Peirce died over a century before ChatGPT became publicly available, we argue that he remains informative in discussions of AI because of his articulation of the Pragmatic Maxim We argue that Peirce's pragmatism offers two avenues from which the appropriateness or inappropriateness of AI in education can be evaluated: (1) Peirce's redefinition of teaching and learning along the lines of the finite origins of reason allows for a reorientation of education that would circumscribe the uses of AI to those that are dependent on authentic, inquisitive learning; and (2) Peirce's Pragmatic Maxim is used as a test by which myriad applications of AI can be evaluated for appropriateness. This test ensures that uses of AI are directed towards, experience. Rather than making a final determination on the overall desirability or undesirability of AI in education, we offer two methods for discriminating between the two extremes.

Du, J., & Gan, F. (2025). **Servant leadership and citizenship behavior via STEAM education: Community action research on a Chinese charity organization for rural children**. *International Journal of Educational Research*, *133*, 102647. https://doi.org/10.1016/j.ijer.2025.102647
Despite the crucial roles of international and national non-governmental organizations in promoting global civil movement through education, and China's significant engagement with the global public in recent decades, far too limited attention has been paid to domestic voluntary and regional charity organizations. Accordingly, this community action research explores the role of science, technology, engineering, arts, and mathematics (STEAM) education and its impact on rural Chinese schooling. The research investigates how Chinese STEAM enterprisers, professionals, academics, teachers, and students engage in voluntary programming to support rural children in Jiangxi Province. Adopting the concepts of servant leadership and citizenship, this research addresses two primary research questions related to: (1) the major challenges faced by the subject rural community and their children and (2) volunteer motivations and perceptions of servant leadership and citizenship behaviors. The findings show that challenges included population decline, a lack of parental involvement, and digital divides. Volunteers' motivations are rooted in historical and intergenerational narratives and social responsibility, aligning with their core socialist values. The study highlights the interplay of servant leadership, citizenship, and STEAM education in fostering rural community development. It proposes future action research agendas to develop experiential learning frameworks in STEAM education and praxis, thereby increasing voluntary motivations and bridging educational disparities in the Chinese national context of the rural-urban divide and digital gap.

Falconí, F. (2025). **L'éducation et ses défis à l'âge de l'Anthropocène en Équateur** (P. Rabaté, Trad.). *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w0
L'objectif de cet article est d'analyser les défis que doit relever l'éducation en Équateur face aux implications de l'Anthropocène ou, dans un sens plus vaste, du Capitalocène, marqué par un impact humain indéniable sur la planète. L'Équateur, pays d'une très grande diversité et richesse culturelle, qui a été le premier à reconnaître les droits de la nature dans sa constitution de 2008, doit surmonter sa dépendance à l'égard des ressources naturelles non renouvelables, mener à bien une transition pour sortir de l'extractivisme, freiner la perte de biodiversité et la déforestation due aux changements d'usage des sols, et réduire la pauvreté et les inégalités sociales. Pour faire face à ces défis, il est nécessaire d'adopter une vision intégrale de l'environnement éducatif, avec une gestion adaptée aux nouvelles réalités écologiques, le développement de la conscience environnementale dans la salle de classe et une amélioration des connaissances des enseignants dans ce domaine.

Gan, D., & Nathan, A. (2025). **'They don't teach what we need to know': Israeli youth activists challenge school climate change education**. *International Journal of Educational Research*, *133*, 102749. https://doi.org/10.1016/j.ijer.2025.102749
This study examined the experiences of Israeli youths involved in climate activism, focusing on the role of schools in either supporting or hindering their engagement. Grounded in social movements theory, the research examined environmental citizenship and explored how Israeli youths perceive the role of schools in promoting climate change education (CCE). Using qualitative phenomenological approach, we conducted 19 interviews with youths participating in climate protests and analyzed the vision statements of their schools. The findings reveal a disconnect between young climate activists and their schools, which they perceive as ineffective in supporting environmental action. Students viewed their schools as operating within outdated frameworks that fail to address environmental challenges. As part of the education system, schools do not succeed in providing students with adequate resources, skills, and emotional support to effectively address climate issues. The results suggest a growing divergence between traditional education systems and climate-engaged youths. This trend reflects students' perception that educational institutions neither serve as effective partners in climate advocacy nor offer spaces that meaningfully acknowledge their environmental concerns. Based on these findings, we recommend the following policy measures: Integrate CCE across disciplines through curriculum restructuring; establish formal mechanisms for youth participation in school-based environmental decision-making; provide professional development for educators on CCE and eco-anxiety support; create dedicated spaces within schools for climate activism; and develop recognition systems for environmental engagement as legitimate educational outcomes. Implementing these changes would help bridge the gap between schools and environmentally engaged youth.

García Peñalvo, F. J., Alier Forment, M., Pereira Varela, J. A., & Casany Guerrero, M. J. (2024). **Safe, transparent, and ethical artificial intelligence: keys to quality sustainable education (SDG4)**. *International Journal of Educational Research and Innovation*, *2024*(22). https://doi.org/10.46661/ijeri.11036
The increasing integration of artificial intelligence (AI) into educational environments necessitates a structured framework to ensure its safe and ethical use. A manifesto

outlining seven core principles for safe AI in education has been proposed, emphasizing the protection of student data, alignment with institutional strategies, adherence to didactic practices, minimization of errors, comprehensive user interfaces, human oversight, and ethical transparency. These principles are designed to guide the deployment of AI technologies in educational settings, addressing potential risks such as privacy violations, misuse, and over-reliance on technology. Smart Learning Applications (SLApps) are also introduced, integrating AI into the existing institutional technological ecosystem, with special attention to the learning management systems, enabling secure, role-adaptive, and course-specific learning experiences. While large language models like GPT offer transformative potential in education, they also present challenges related to accuracy, ethical use, and pedagogical alignment. To navigate these complexities, a checklist based on the Safe AI in Education principles is recommended, providing educators and institutions with a framework to evaluate AI tools, ensuring they support academic integrity, enhance learning experiences, and uphold ethical standards.

Germein, S. (2025). **Agentic education for the Anthropocene: an example from Himalayan India**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146w5
The current and emerging uncertainties of the Anthropocene pose a challenge for education. How can we best educate our children to survive and thrive, with optimism for the future? We need to rethink education at a paradigmatic level. A small school in India, operating for over 75 years, offers such a paradigm-shifting education, based on Gandhian principles. This education, with its holistic approach to learning and ethical engagement with the community, provides an exemplar of a relational process of ethico-onto-epistemology. The resulting transdisciplinary and transformative pedagogic principles are transferable to other schools, within their own cultural contexts.

Grigoropoulos, I. (2025). **When sex goes to school: Parents' conservative opposition to sexuality education**. *Analyses of Social Issues and Public Policy*, *25*(2), e70014. https://doi.org/10.1111/asap.70014
Understanding the social-psychological mechanisms underlying parental attitudes toward school-based sexuality education is increasingly important in polarized societies. Guided by the Dual Process Motivational (DPM) model, the current research examined how right-wing authoritarianism (RWA), social dominance orientation (SDO), and religiosity relate to opposition to school-based sexuality education among Greek parents. Two studies were conducted with a combined sample of 643 parents (Study 1, 376 participants, Mage = 38.47, SDage = 7.39; 336 female participants; Study 2, 267 participants, Mage = 44.91, SDage = 6.77; 240 female respondents) residing in Greece. Data were analyzed using bivariate correlations, multiple regression, and bootstrapped moderation analysis. Results showed that both RWA and SDO were negatively associated with support for school-based sexuality education. Furthermore, higher religiosity intensified the negative relationship between RWA and attitudes toward sexuality education. These findings highlight how ideological and religious worldviews may shape parental opposition to sexuality education, offering new directions for research and policy development.

Guarrigue-Bidot, C., Trainoir, M., Lesage, M., & Perrin, M. (2025). **Habiter et travailler en Lieux de Vie et d'Accueil (LVA) : un engagement dans l'éducation populaire**. *Tréma*, (63). https://doi.org/10.4000/13r5e

Les lieux de vie et d'accueil (LVA) sont des petites structures qui, à l'orée du champ du social et du médicosocial, proposent aux personnes qui y sont accueillies un accompagnement continu et quotidien, fondé sur le « vivre avec ». Dans le cadre d'un projet de recherche sur les significations de ce « vivre avec », nous nous sommes questionnées sur la réinvention du travail par les permanent·e·s de ces lieux où se vivent et s'entremêlent les questions de quotidien et d'engagement. Dans cet article, il s'agit, à partir de l'expérience habitante, d'explorer les conceptions du travail, et le rapport aux normes et aux institutions qui régulent la prise en charge des jeunes sous main de justice ou confié·e·s au titre de la protection de l'enfance. Si le « vivre avec » est présenté comme la valeur et la modalité éducative fondatrice et rassembleuse des LVA, les pratiques minuscules du quotidien, les arts de la débrouille, la domestication des espaces et la constitution des chez-soi dévoilent le rapport aux contraintes administratives et professionnelles des permanent·e·s et révèlent leurs modes d'engagement et les épreuves auxquelles ils et elles font face.

Guo, X., & Lin, L. (2025). **The new knowledge (Co)production mode through an ecological University-schools partnership in addressing education equity in China**. *International Journal of Educational Research*, *133*, 102678. https://doi.org/10.1016/j.ijer.2025.102678
This study proposes a new knowledge production model through an « ecological partnership » between universities and schools/communities in China, addressing educational equity. Drawing on a 20-year case study of Multi-cultural Education Research Centre (MERC), the research critically engages with Mode 1 and Mode 2 knowledge production frameworks. It introduces a « mixed mode » of new knowledge production that integrates practical problem-solving with theoretical innovation, specifically tailored to social sciences and practice-oriented contexts. The findings highlight how this model fosters participatory methods, reflexivity, and multilevel collaboration among diverse stakeholders, including marginalized communities. By bridging academic and applied knowledge, the study demonstrates the potential of this approach to address systemic inequities while contributing to global discussions on decolonizing education and sustainable development.

Herman, J., & Lara-Steidel, H. (2025). **Artificial Intelligence on Campus: Revisiting Understanding as an Aim of Higher Education**. *Educational Theory*, *75*(4), 603-625. https://doi.org/10.1111/edth.70026
The launch of the powerful generative AI tool ChatGPT in November 2022 sparked a wave of fear across higher education. The tool could seemingly be used to write essays and do other work without students putting in the effort expected of them. In this paper, Jamie Herman and Henry Lara-Steidel posit a way of addressing the concerns over ChatGPT and increasingly powerful generative AI tools in the classroom by first examining what exactly, if anything, widespread AI use undermines in education. That question, they argue, is logically prior to the question of what to do or how best to embrace new advances in AI technology. They propose that ChatGPT, rather than threatening student cognitive development and effort, reveals a serious flaw in higher education's current aims and assessments: they are directed at knowledge, not understanding. Herman and Lara-Steidel review the distinction between knowledge and understanding to argue that aiming for the latter requires work and effort from students, ensuring that they develop cognitive agency. They further note that assessments in higher education are typically geared toward measuring knowledge, not understanding, and suggest that this makes them particularly vulnerable to being undermined by AI use, while assessments of

understanding do not. Although AI can enhance and aid students in developing understanding, it can neither provide them with understanding nor give the appearance of understanding without student effort. After addressing some salient objections, the authors conclude by outlining avenues for designing understanding-based assessments in higher education compatible with AI tools such as ChatGPT, and they provide a framework for both understanding and responding to generative AI use in education.

Jung, H. (2025). **But yet included: effects of classmates with special needs on elementary school students' civic-mindedness**. *Asia Pacific Education Review*, *26*(3), 763-779. https://doi.org/10.1007/s12564-025-10043-4
Instilling civic-mindedness in youth is crucial for the functioning of a democratic society. Inclusive education, which involves placing students with special needs into general education classrooms, is considered a method for fostering civic-mindedness in young people. Building on existing literature, this study investigates the impact of classmates with special needs on the civic-mindedness of elementary school students. The study utilizes the quasi-random assignment of students across classrooms in South Korea to establish causal relationships. The results indicate that a higher ratio of students with special needs within a classroom negatively affects the civic-mindedness of individual students, with these effects being more pronounced in the dimension of valuing mutual assistance. Finally, we empirically infer that negative impacts on friendship and the classroom environment may contribute to these results. Based on the results, we discuss the policy implications.

Kraft, Matthew A., Malik, Sohil, & Falken, Grace. (2025). **Education and Climate Change: Synthesizing the Evidence to Guide Future Research**. *EdWorkingPaper*, (25-1238), 1-66. https://doi.org/10.26300/TGEA-5E35
The effects of climate change are becoming increasingly visible across all aspects of the U.S. PreK-12 education system. Schools are both vulnerable to climate change and uniquely positioned to be part of the solution. We synthesize interdisciplinary research and data to illustrate the bi-directional relationship between schools and our changing climate. Drawing on this evidence, we map out a research agenda around five interrelated dimensions to inform policy and practice: 1) reducing schools' environmental impacts, 2) making schools more resilient to environmental pressures, 3) supporting students and staff affected by climate change, 4) teaching about climate science, exposing students to the natural world, and providing training for jobs that advance sustainable practices, and 5) expanding the role of schools as community hubs that support broader awareness about climate change and care for the planet.

Lan, G., Feng, X., Du, S., Song, F., & Xiao, Q. (2025). **Integrating ethical knowledge in generative AI education: constructing the GenAI-TPACK framework for university teachers' professional development**. *Education and Information Technologies*, *30*(11), 15621-15644. https://doi.org/10.1007/s10639-025-13427-6
Despite the critical role teachers play in AI education, research on their understanding of generative AI tools remains limited, particularly concerning their ethical assessment knowledge. This study addresses the gap by proposing the Generative AI Technological Pedagogical Content Knowledge (GenAI-TPACK) framework, which incorporates ethical knowledge as an essential component of university teachers' professional development. Grounded in the Technological Pedagogical Content Knowledge (TPACK) model, we utilize structural equation modeling to investigate the interrelationships among

Generative AI Technological Knowledge, pedagogical knowledge, and ethical assessment knowledge. Our findings indicate that university teachers' effective use of generative AI is contingent upon their technological knowledge and engagement with these tools. Furthermore, while technical knowledge supports evaluative decision-making, it is insufficient on its own for successful integration into teaching practices. Instead, a holistic approach that combines technological and pedagogical knowledge enhances teachers' capacities to utilize generative AI effectively. The study also reveals a positive correlation between ethical assessment knowledge and both pedagogical and content knowledge, contributing to a comprehensive understanding of the GenAI-TPACK framework. This research underscores the importance of integrating ethical considerations into AI education, offering valuable insights for the professional development of educators and the enhancement of teacher training programs.

Latorre-Medina, M. J. (2025). ***Research Project Report University of Granada and Autonomous City of Ceuta, Spain (Reference CE-02-UGR24)*** (p. 12). Consulté à l'adresse University of Granada website: https://hal.science/hal-05177805
The binomial university education-professional ethics has in recent years aroused a great amount of research interest both nationally and internationally. The findings of these studies have contributed to the understanding of the relationship between personal ethics and deontological leadership and demonstrated that personal ethics is an essential precursor to ethical leadership in institutions. These studies have likewise appealed for the need to incorporate the teaching of ethics in academic curricula so as to form responsible professionals, an unavoidable element imperative to the construction of a more just, equitable, and inclusive society. With its focus on teaching professionals, the UNESCO set the goal of achieving quality education (SDG 4), which implies counting on prepared and committed professionals. Hence, the ethical performance of teachers –and student teachers– should be in the spotlight of the scientific community and should be accompanied not only by a growing awareness of the importance of professional ethics in higher education, but the need for a more systematic and in-depth approach to imparting it. This research project, which has been funded by the University of Granada and the Autonomous City of Ceuta in Spain (Reference CE-02-UGR24), aims to contribute to this academic debate.

Liu, J., Shadiev, R., & Cao, M. (2025). **Effects of digital citizenship educational game on teenagers' learning achievement, motivation, cognitive load, and behavioral patterns**. *Education and Information Technologies*, *30*(11), 15817-15870. https://doi.org/10.1007/s10639-025-13399-7
Integrating digital games into learning about digital citizenship has garnered significant attention. While digital game-based learning has the potential to enhance learners' academic performance, engagement, and motivation, these games often focus on specific aspects of digital citizenship education and lack systematic design approaches. Furthermore, current game designs are predominantly influenced by behaviorist learning theories, which enhance learning through stimulus reinforcement. However, there remains a gap in providing learners with an autonomously constructive and actively engaging learning environment that fosters meaningful learning. This study, guided by social cognitive theory, designs and develops an educational game system for digital citizenship. It also explores the impact of this digital game on middle school students' digital citizenship learning achievements and their perceptions of learning motivation and cognitive load during the learning process. Additionally, lag sequential analysis is

employed to identify differences in behavioral patterns between high-progress and low-progress groups in game-based learning. A total of 80 first-year middle school students participated in this study. The experimental group engaged in digital citizenship education through the digital game, while the control group learned through regular class-themed courses. The results indicate that gamified digital citizenship education positively influences students' learning achievements, reduces cognitive load, and benefits students with initially low learning motivation. Differences in behavioral patterns between high-progress and low-progress groups during game participation were observed. Based on these findings, the study offers several recommendations and measures for educators and researchers in this field.

Meekaew, N., & Saenkum, D. (2025). **Bridging policy and practice in climate change education: evidence from Northeast Thailand**. *Frontiers in Education*, *10*. https://doi.org/10.3389/feduc.2025.1561574
Climate change presents significant challenges to vulnerable regions, yet educational systems often lack systematic approaches to climate change education (CCE), particularly in resource-constrained settings. While research has examined CCE implementation in developed countries, little is known about effective delivery in climate-vulnerable regions. This study investigates the implementation of CCE in Northeast Thailand, emphasizing the interaction among teacher training, institutional support, and resource accessibility in a developing context where climate impacts directly affect communities. The study employed a sequential explanatory mixed-methods approach, integrating quantitative survey data from 400 teachers with qualitative insights from semi-structured interviews and focus group discussions among 15 teachers and 5 school administrators. Data were analyzed using multiple regression analysis and thematic analysis to identify key predictors of CCE effectiveness and contextual implementation factors. Regression analysis revealed teacher training as the strongest predictor of effective CCE implementation, followed by institutional support and resource availability. The study showed significant differences between urban and rural areas, with 85% of rural schools reporting insufficient resources compared to 40% of urban institutions. Additionally, 60% of teachers reported actively incorporating climate-related topics into their teaching. These findings demonstrate that successful CCE implementation requires the alignment of targeted teacher professional development, supportive institutional frameworks, and equitable resource distribution. Based on these findings, the study recommends establishing regional CCE teacher training centers, implementing resource-sharing networks between urban and rural schools, and developing locally adaptive curricula. This research provides an evidence-based framework for strengthening climate education in developing contexts, offering practical insights for educational policymakers working in climate-vulnerable regions.

Merle, P. (2025). **Les idéologies pédagogiques des établissements privés hors contrat**. *La Pensée*, *422*(2), 147-158. https://doi.org/10.3917/lp.422.0147
Cette recherche a pour objet d'étudier les idéologies pédagogiques des établissements privés horscontrat. Àpartirdecinqorientationspédagogiquesdéfiniesdansunerechercheprécédente fondée sur l'analyse quantitative de 150 rapports d'inspection des établissements privés hors contrat, deux idéologies pédagogiques sont élaborées : la primauté de l'enfant et la primauté du religieux. Ces idéologies pédagogiques sont à l'origine de pratiques et enseignements déviants. Elles ne constituent pas seulement des alternatives éducatives.

Elles sont sous-tendues par des projets de société concurrents à l'organisation sociale contemporaine.

Moyano Dávila, C., Alarcón-Arcos, S., Angelcos, N., Castillo, J. C., & Salgado, M. (2025). **Merit as an Attitude: Chilean School Communities' Repertoires in Chile and the Perception of the "Good Student" in a Post-pandemic Scenario**. *Social Justice Research*, *38*(3), 264-289. https://doi.org/10.1007/s11211-025-00456-2
Due to its commodification policies, the Chilean educational system is a paradigmatic case for study. It comprises private subsidies, achievement incentives, competition, selection, and segregation. After years of student and social protests, the 2015 Inclusion Law mandated that publicly funded schools accept all admitted students. Critics argue this restricts family choice and undermines merit. The COVID-19 pandemic further deepened inequalities, exposing contradictions in a merit-based system. This article examines how meritocratic ideals emerged post-pandemic in parents' and teachers' perceptions of school communities within a neoliberal educational model promoting meritocratic values alongside inclusive policies. Based on 32 interviews with parents and teachers from two private and two publicly funded schools in Santiago, findings show meritocracy is deeply entrenched, even in public education. The "meritorious student" is defined beyond academics, encompassing behavior, responsibility, and respect—traits also expected of families. The importance of effort as a mechanism for improvement permeates the notion of the "good student", thereby overshadowing the importance of inclusive educational environments, as merit also becomes relativised by the post-pandemic scenario. The deep educational inequalities and behavioural problems force teachers and parents to focus on and solve different aspects rather than academic achievements. Merit, as understood by educational communities, is perceived as a process and an attitude intertwined with social opportunities.

Naim, M. A., & Indrajaya, Ir. A. N. (2025). **Key Factors for More Effective Community Engagement for Climate Change Adaptation: A Case of High vs Low Lying Area of Bantul and Pariaman**. *European Journal of Education*, *60*(3), e12839. https://doi.org/10.1111/ejed.12839
This article explores climate change adaptation (CCA) in Indonesia after 20 years of ratifying the Kyoto Protocol and 8 years of the Paris Agreement. It highlights the importance of improving community engagement and participation in CCA efforts. Drawing from international and Indonesian contexts, the study identifies key factors for effective community engagement, including social capital, education, institutional change, local knowledge, government commitment and prosperity. The research, based on interviews with key Indonesian policy actors, underscores the significance of addressing these factors to promote meaningful local change. While acknowledging the challenges, the article emphasises the urgency of prioritising inclusive community engagement to address the looming threat of climate change effectively. This prioritisation is crucial for both educational and CCA policy development purposes.

Paula, L. T. de. (2025). **The Fake News Observatory: a teaching resource to cultivate an informed civic culture in Brazil**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wl
Inspired by Paulo Freire's Pedagogy of Freedom, this text advocates an educational paradigm that fosters critical awareness, curiosity, and ethical discernment in the context of online information. It presents an educational praxis grounded in information culture,

utilising a news-checking methodology, termed the "Fake News Observatory", which aims to enhance the identification of fake news and cultivate critical digital competence within the domain of information culture. Information culture is of crucial importance for citizen education in a digital world, enabling individuals to become active, conscious participants in building a fairer and more democratic society in line with the Brazilian government's plans for digital education.

Pillow, W. S. (2025). **Epistemic ignorance and ontological whiteouts in post-qualitative research**. *International Journal of Qualitative Studies in Education*, *38*(8), 1266-1291. https://doi.org/10.1080/09518398.2025.2502072
If post-qualitative studies is committed to rethinking epistemologies and ontologies of matter and humanism, then why is the field perpetuating narrow, one-slit, theorizing? Does it matter who we theorize with? And what matter matters in post-qualitative inquiry? These questions guide the discussion in this essay as Pillow offers a critique of how post-qualitative inquiry thought with narrow interpretations of new feminist materialism is limiting itself theoretically resulting in epistemological ignorance and ontological whiteouts. After a review of what is at stake, Pillow provides a brief introduction to quantum theory and the famous double-slit experiment suggesting that by ignoring their own ontological whiteouts "new" feminist materialisms and post-qualitative studies are reproducing colonial one-slit theorizing. Pillow concludes by discussing how ethico-onto-epistemic response-ability—theoretically and in praxis—is necessary to whatever post-post times we are in. This is a response-ability that refuses one-slit theorizing and enters into inquiry with entangled ensembles and decolonial attitude.

Resnik, J. (2025). **Échanger en ligne pour améliorer l'éducation à la citoyenneté mondiale des futurs enseignants : le projet Global Sense (Allemagne, Belgique, France, États-Unis, Israël)**. *Revue internationale d'éducation de Sèvres*, (HS-4). https://doi.org/10.4000/146wj
À une époque de montée de l'ethno-nationalisme et de la xénophobie, les enseignants endossent la responsabilité d'aborder des questions socio-politiques complexes et controversées pour le développement de l'esprit critique chez les élèves. Cet article présente un projet de recherche qui porte sur les échanges en ligne entre étudiants dans les métiers de l'enseignement de cinq pays, dans l'objectif d'améliorer l'éducation à la citoyenneté mondiale (ECM) de ces futurs éducateurs et de les préparer à introduire des questions d'ECM dans leurs classes. Les étudiants concernés ont conçu des projets pédagogiques sur les enjeux mondiaux, participé à des échanges en ligne et partagé leurs réflexions. L'analyse qualitative de ces données montre que les échanges ont laissé une forte impression, autour de trois thèmes principaux : les engagements politiques des participants, les approches pédagogiques et les identités professionnelles en tant qu'éducateurs. Ces résultats suggèrent que les échanges internationaux peuvent non seulement favoriser une sensibilisation au thème de la citoyenneté mondiale, mais aussi renforcer les identités professionnelles locales ainsi que la capacité à « affronter les incertitudes » en classe.

Sethy, Wright, & Salitrynski. (2025). **Adapting 'Ethics Bowl' Strategies for Teaching Introductory Ethics Course – A Case Study of an American Community College**. *Community College Journal of Research and Practice*, *49*(9), 568-579. https://doi.org/10.1080/10668926.2024.2336477
Teaching introductory ethics course or courses with strong ethics content to first- and second-year undergraduate students presents numerous challenges. Most students

register for these courses to meet a general education requirement or believe they do not need education in ethics because they have received cultural, social, and religious instructions. Furthermore, many college and university administrators, employers, and policymakers confuse ethics with compliance and misunderstand their connection. In this context, this paper argues that undergraduate students can learn ethics subject content (e.g., metaethics, normative ethics, and applied ethics, etc.), attain course objectives, and apply their learning in professional and personal situations. Strategies used to prepare students for the Intercollegiate Ethics Bowl (IEB) competition have proven effective means of introducing and reinforcing ethics course content outside of the classroom setting. The qualitative data obtained from the respondents suggests that the methodology and strategies adopted to prepare students for ethics bowl competitions reinforced the ethical theory participants learned in courses where ethics content was prominent and led them to make rational and ethical decisions. These findings also suggest that strategies to prepare ethics bowl teams for the IEB competition can similarly impact non-ethics bowl team members in a traditional classroom setting.

Son, S. A., & Ballard, G. (2025). **Fostering critically compassionate global citizens: A UK university study abroad experience in South Korea**. *International Journal of Educational Research*, *133*, 102672. https://doi.org/10.1016/j.ijer.2025.102672
This article explores how a short-term study abroad programme in South Korea cultivated a critically compassionate and morally engaged form of global citizenship among British East Asian Studies undergraduate students. Drawing on our pedagogical reflections, we examine student engagement with South Korean unification education via encounters with a range of government and non-governmental actors, each offering divergent perspectives on inter-Korean relations. We argue that structured reflection, emotional attunement, and agonistic engagement enabled students to develop confidence in navigating complexity while fostering a justice-oriented response to conflict and inequality. These outcomes were supported by a pedagogical approach that prioritised ethical deliberation, affective engagement, and reflexive positionality, encouraging students to interrogate assumptions and challenge dominant narratives. The study connects area studies education with broader debates in global citizenship education (GCE), advocating for in-country engagement that moves beyond skills acquisition toward ethical and political awareness. The findings support a call to embed GCE more deliberately in area studies curricula, enabling students to grapple with positionality, power, and global interdependence through critically informed, affective, and dialogic learning.

Tadlaoui-Brahmi, A., Alvarez, L., & Buttier, J.-C. (2025). **L'éducation populaire à la rescousse des institutions pour l'éducation à la citoyenneté numérique ? La nécessité d'un tiers-lieu face aux limites de l'école**. *Tréma*, (63). https://doi.org/10.4000/13r54
Cet article interroge les limites inhérentes au cadre scolaire institutionnel face aux finalités de l'éducation à la citoyenneté numérique (CN). S'appuyant sur trois communautés de pratiques menées auprès d'enseignant·es du primaire, notre analyse met en lumière les contraintes structurelles qui limitent la capacité de l'école, et celle de ses représentant·es, à appréhender pleinement la diversité des pratiques de CN. Dans ce contexte, les principes fondamentaux de l'« éducation populaire politique », tels que conceptualisés par Morvan (2011), émergent comme une voie prometteuse de dépassement. Cette approche, inscrite dans des enjeux d'émancipation et de participation active, constitue un cadre favorable à une réflexion critique sur les modes

d'apprentissage de la CN. À cet égard, notre discussion suggère le recours aux tiers-lieux, définis comme espaces d'expérimentation pédagogique et formalisés hors des injonctions institutionnelles. En définitive, cet article vise à nourrir la réflexion sur les limites des circuits éducatifs institutionnalisés, dans le but de mieux répondre aux enjeux d'une CN critique et engagée, sous réserve que cet objectif soit effectivement poursuivi.

Tulsyan, A. (2025). **Rethinking Quality Education: Perspectives from the Capability Approach**. *ORF Occasional Paper*, (483), 1-35. Consulté à l'adresse https://www.orfonline.org/public/uploads/posts/pdf/20250709183309.pdf
Rethinking Quality Education: Perspectives from the Capability Approach

UNESCO International Centre for Technical and Vocational Education and Training. (2025). ***Greening TVET: guidelines for institutions in South Sudan*** (p. 45). Consulté à l'adresse UNESCO website: https://unesdoc.unesco.org/ark:/48223/pf0000394867

Wang, Y.-M., Lin, Y.-C., & Wang, Y.-S. (2025). **Implement internet ethics education: What matters most?** *Education and Information Technologies*, *30*(13), 19213-19244. https://doi.org/10.1007/s10639-025-13521-9
Unethical behaviors on the Internet are increasingly prevalent, causing widespread tangible and intangible harms to society. To address this growing issue, implementing Internet ethics education in higher educational institutions presents a proactive and effective solution to this problem. Understanding the factors that motivate educational institutions to adopt this educational innovation is crucial. This study explores these motivations by integrating innovation diffusion theory with the technology-organization-environment framework, identifying key factors that influence organizational-level intentions to implement Internet ethics education. Data collected from 81 respondents holding a lecturer position or higher were analyzed using partial least squares structural equation modeling. The findings highlight that perceived benefits, compatibility, top management support, and government support significantly and positively affect implementation intentions. These insights provide valuable guidance for educators and policymakers in educational institutions, demonstrating the applicability of the integrated theoretical framework in studying educational innovations and can be extended to other areas of innovation research.

Wolf, A. (2025). **Algorithmic Fairness and Educational Justice**. *Educational Theory*, *75*(4), 661-681. https://doi.org/10.1111/edth.70029
Much has been written about how to improve the fairness of AI tools for decision-making but less has been said about how to approach this new field from the perspective of philosophy of education. My goal in this paper is to bring together criteria from the general algorithmic fairness literature with prominent values of justice defended by philosophers of education. Some kinds of fairness criteria appear better suited than others for realizing these values. Considering these criteria for cases of automated decision-making in education reveals that when the aim of justice is equal respect and belonging, this is best served by using statistical definitions of fairness to constrain decision-making. By contrast, distributive aims of justice are best promoted by thinking of fairness in terms of the intellectual virtues of human decision-makers who use algorithmic tools.

Zhang, D., Wen, L., & Wu, J. G. (2025). **Structured or Semi-Structured? The Use of Reflection Journals in Postgraduates' Generative Artificial Intelligence Literacy Development in an**

L2 Academic Writing Context. *European Journal of Education*, *60*(3), e70189. https://doi.org/10.1111/ejed.70189
Generative artificial intelligence (GenAI) not only has the potential to aid L2 academic writing but also poses unique challenges concerning impacts and ethics. Reflection journals, which promote critical thinking and metacognitive awareness, have the capacity to guide GenAI-assisted writing, yet remain underexplored. This study examines and compares the effects of structured reflection journals (SRJs) and semi-structured reflection journals (SSRJs) on enhancing postgraduates' GenAI literacy within an L2 academic writing context. Based on the frameworks proposed by UNESCO and Digital Promise, the study developed a GenAI literacy framework that includes four dimensions: (a) Operational Competence in GenAI Tools, (b) Ethics and Security in GenAI Usage, (c) Critical Evaluation of GenAI Outputs and Autonomy and (d) Reflection in GenAI Application. The study assessed the GenAI literacy levels of 39 participants before and after four GenAI-assisted writing tasks. Reflection journals were completed after each task (20 in the SRJ group and 19 in the SSRJ group). Results revealed significant improvements in GenAI literacy across three dimensions (Dimensions 1 to 3), with no significant difference between the SRJ and SSRJ groups. However, thematic analysis of reflective content showed that SRJs, with their more comprehensive guiding questions, encouraged deeper engagement with GenAI-related rules and more thorough evaluations of GenAI-generated content compared to SSRJs. By comparing different types of reflection journals as effective scaffolds in L2 writing pedagogy, this study encourages the integration of reflective practices into GenAI-assisted L2 academic writing classrooms, aiming to enhance students' critical evaluation skills and ethical awareness.

Zhang, X., Hu, J., & Zhou, Y. (2025). **The role of perceived utility and ethical concerns in the adoption of AI-based data analysis tools: A multi-group structural equation model analysis among academic researchers**. *Education and Information Technologies*, *30*(13), 18819-18851. https://doi.org/10.1007/s10639-025-13535-3
This study explores the role of perceived utility, social influence, and ethical concerns in the adoption of AI-based data analysis tools among academic researchers in China, focusing on differences between public and private universities. The research aims to identify key drivers and barriers influencing the integration of AI technology in academic settings. A quantitative approach was employed, using a multi-group structural equation model (SEM) analysis to assess data collected from 750 academic researchers across various disciplines (Npvt = 402; Npub = 348). The findings reveal that both perceived utility and social influence significantly influence the adoption of AI tools. Higher perceived utility and stronger social influence lead to greater adoption. However, ethical concerns were found to moderate these relationships, particularly in public universities, where researchers with high ethical concerns perceived greater risks, thereby reducing their likelihood of adoption. In contrast, private university researchers showed a higher tolerance for perceived risks when utility and social influence were evident. The study's implications suggest that to promote AI adoption, institutions must address ethical concerns and perceived risks, particularly in public universities, by enhancing transparency, providing ethical guidelines, and offering comprehensive training. These efforts can lead to more effective integration of AI technologies, ultimately enhancing research productivity and innovation across diverse academic environments.