Sommaire :

 Acquisition de compétences .......................................................... 2
 Aspects économiques de l’éducation ........................................... 15
 Aspects psychologiques de l’éducation ...................................... 27
 Aspects sociaux de l’éducation ...................................................... 64
 Climat de l’école ........................................................................ 103
 Évaluation des dispositifs d’éducation-formation ..................... 106
 Marché du travail .......................................................................... 109
 Métiers de l’éducation .................................................................... 111
 Numérique et éducation ................................................................. 134
 Orientation scolaire et professionnelle ...................................... 159
 Politique de l’éducation et système éducatif ............................. 165
 Pratiques enseignantes ................................................................. 218
 Relation formation-emploi ......................................................... 246
 Réussite scolaire ........................................................................... 248
 Valeurs .......................................................................................... 254

Accédez au groupe Zotéro qui recense toutes les références citées depuis la veille n°121
Acquisition of competences

Quantitative skills are a critical competency for undergraduates pursuing life science careers. To help students develop these skills, it is important to build their self-efficacy for quantitative tasks, as this ultimately affects their achievement. Collaborative learning can benefit self-efficacy, but it is unclear what experiences during collaborative learning build self-efficacy. We surveyed introductory biology students about self-efficacy-building experiences they had during collaborative group work on two quantitative biology assignments and examined how students’ initial self-efficacy and gender/sex related to the experiences they reported. Using inductive coding, we analyzed 478 responses from 311 students and identified five group work experiences that increased students’ self-efficacy: accomplishing the problems, getting help from peers, confirming answers, teaching others, and consulting with a teacher. Higher initial self-efficacy significantly increased the odds (odds ratio: 1.5) of reporting that accomplishing the problems benefited self-efficacy, whereas lower initial self-efficacy significantly increased the odds (odds ratio: 1.6) of reporting peer help benefited self-efficacy. Gender/sex differences in reporting peer help appeared to be related to initial self-efficacy. Our results suggest that structuring group work to facilitate collaborative discussions and help-seeking behaviors among peers may be particularly beneficial for building self-efficacy in low self-efficacy students.

Au CP, pendant l’année scolaire, les écarts de performances entre secteurs de scolarisation se réduisent. Puis, pendant les vacances d’été, les élèves sont éloignés de l’école pendant deux mois. À l’issue de cette période de congés, les écarts de performances augmentent. C’est le principal constat de cette étude réalisée auprès d’élèves entrés en CP en 2020. Après les congés d’été, en mathématiques, le niveau stagne ou baisse dans tous les domaines sauf en résolution de problèmes. Dans le même temps, les écarts de performances entre les élèves selon leur secteur de scolarisation augmentent dans tous les domaines au détriment des ceux scolarisés en éducation prioritaire, notamment en REP+. En français, le niveau augmente pendant les vacances d’été, sauf en écriture. Dans ce domaine, tout comme en lecture à voix haute, les écarts de performances entre les élèves selon leur secteur de scolarisation augmentent. Enfin, la plus forte progression des performances des garçons par rapport à celles des filles en mathématiques, au cours de l’année de CP, se confirme à l’issue des vacances.

This study aims to critique the concept of active learning in childhood education based on Hegelian Bildung. We have defined childhood education from the perspective of Hegel’s Bildung in The Phenomenology of Spirit. We describe childhood education as a ‘primary Bildung’ having the aim of ‘entering into the conceptual world’. This aim
indicates that children can and are required to express their experiences in conceptual language. Finally, we critique the conceptual components of active learning from the Hegelian point of view and suggest three alternative components: ‘child-educator interaction’, ‘understanding historical knowledge’, and ‘addressing concrete-abstract affairs.’ We suggest that the concept of active learning needs to be replaced by ‘Communicative-Interactive Learning (CIL)’. CIL takes both objectivity and subjectivity into account during the process of knowledge formation in education.


« On établit un lien très fort entre processus cognitifs et émotionnels ». C’est ce lien qu’Edouard Gentaz, professeur de psychologie du développement à l’Université de Genève, développe dans « Comment les émotions viennent aux enfants » (Nathan). L’ouvrage s’adresse en priorité aux parents. Dans cet entretien, Edouard Gentaz montre son intérêt pour les enseignants et la réussite scolaire…


It is well established that socioeconomic status, cognitive ability, and non-cognitive abilities such as self-efficacy are substantially associated with academic achievement. However, the specific relationships of these variables remain a relatively unexplored topic in regard to more recent and representative samples. The current study examined such relations by taking advantage of two cohorts (total N = 12,315) of Swedish students at the elementary (Grade 6) and lower-secondary school levels (Grade 8) in the compulsory school. The regression models showed that all three variables explained a substantial portion of grade variance, with cognitive ability having the strongest relationship, followed by non-cognitive abilities, and SES. Longitudinal associations, which accounted for previous academic achievement, showed that the three variables did still explain a substantial amount of grade variance.


Pour commencer, plusieurs types d’appropriation de la formation initiale ont été mis en évidence, dépendant de l’interaction de six facteurs internes et externes à l’apprenant. Le sens attribué à la formation et la perception du formateur apparaissent comme les facteurs les plus déterminants. Par ailleurs, une forme de sélection implicite est opérée au cours de cette formation initiale, notamment par l’intermédiaire d’obstacles qui entravent le parcours de certains profils peu représentés dans le milieu, qui petit à petit apparaissent démotivés et désinvestis, et finissent par rompre leur engagement. Enfin, les résultats ont montré que la formation initiale joue un rôle moins important qu’attendu dans le processus de professionnalisation, dans lequel l’investissement des individus apparaît en revanche essentiel.
Scholars and the public alike have questioned the benefits of obtaining an undergraduate education. Although research has extensively examined short-term outcomes associated with college experiences, relatively few studies have investigated non-economic outcomes beyond graduation. This paper explored the link between college experiences and post-college outcomes among 21,716 bachelor’s degree recipients from 68 private institutions. Although some variation across demographics was observed, good teaching, academic challenge, and diversity experiences were consistently—and often strongly—related to alumni’s perceptions of intellectual and civic growth.


A large literature establishes that cognitive and non-cognitive skills are strongly correlated with educational attainment and professional achievement. Isolating the causal effects of these traits on career outcomes is made difficult by reverse causality and selection issues. We suggest a different approach: instead of using direct measures of individual traits, we use differences between individuals in the presence of genetic variants that are associated with differences in skills and personality traits. Genes are fixed over the life cycle and genetic differences between full siblings are random, making it possible to establish the causal effects of within-family genetic variation. We link genetic data from individuals in the Swedish Twin Registry to government registry data and find evidence for causal effects of genetic differences linked to cognitive skills, personality traits, and economic preferences on professional achievement and educational attainment. Our results also demonstrate that education and labor market outcomes are partially the result of a genetic lottery.


The purpose of this study was to quantitatively assess the integration of computational thinking with learning about biological evolution. Specifically, we investigated the effectiveness of a framework from a recently developed learning progression that emphasises the complex nature of teaching both computational thinking and biological evolution. Computational thinking is a concept introduced by relatively recent science education reform efforts. For many educators, the notion of computational thinking is unclear making it difficult to integrate into instruction. High school student participants engaged in a quasi-experimental design study. Interventions integrating computational thinking and evolution concepts were used synonymously with assessments to identify change in both student biological evolution knowledge and computational knowledge over time. Students deepened their knowledge in both areas; however, one intervention was more robust in increasing both knowledge of computational thinking and biological evolution. The results warrant future research in these areas and suggest that
computational thinking deserves a much greater emphasis within biology classrooms. It also supports the learning progression’s model of weaving disciplinary core ideas with scientific practices to deepen students’ science learning.


Renewable assignments are student created artifacts that have value outside of courses. However, more empirical inquiry in renewable assignments grounded in theoretical frameworks is necessary. In this study, students (N = 69) engaged in renewable assignments and were asked to report on their perceptions based on the self-determination theory of motivation and social justice principles. Overall, students reported higher levels of motivation as well as more opportunity to represent their identities for renewable assignments than traditional assignments. Students who opted to publicly share reported higher levels of competence and relatedness than did students who did not opt to publicly share.


Dans cet article, nous traitons de deux sujets distincts, mais interreliés. D’abord, nous décrivons brièvement les procédés qui servent à encoder les sons de la parole et le sens en français écrit. Ces procédés comprennent les correspondances graphème-phonème, le groupement des phonèmes pour former des syllabes, la constitution du lexique, les procédés de formation des mots et l’assemblage des mots pour former des phrases et des passages de texte. Puis, nous nous référerons au « modèle simple de la lecture » pour décrire les habiletés fondamentales qui président à la compréhension de l’écrit à l’école primaire, notamment l’identification visuelle des mots et la compréhension de l’oral.


Mastery of quantitative skills is increasingly critical for student success in life sciences, but few curricula adequately incorporate quantitative skills. Quantitative Biology at Community Colleges ([email protected]) is designed to address this need by building a grassroots consortium of community college faculty to 1) engage in interdisciplinary partnerships that increase participant confidence in life science, mathematics, and statistics domains; 2) generate and publish a collection of quantitative skills-focused open education resources (OER); and 3) disseminate these OER and pedagogical practices widely, in turn expanding the network. Currently in its third year, [email protected] has recruited 70 faculty into the network and created 20 modules. Modules can be accessed by interested biology and mathematics educators in high school, 2-year, and 4-year institutions. Here, we use survey responses, focus group interviews, and document analyses (principles-focused evaluation) to evaluate the progress in accomplishing these goals midway through the [email protected] program. The [email protected] network provides a model for developing and sustaining an
interdisciplinary community that benefits participants and generates valuable resources for the broader community. Similar network-building programs may wish to adopt some of the effective aspects of the [email protected] network model to meet their objectives.


This document focuses on designing curriculum for learning for sustainability. The key messages reflect discussions which took place in the EU Working Group on learning for sustainability during its meeting in Brussels on 15-16 September 2022. During the meeting, participants discussed and identified: policy actions that can assist in the development and introduction of school curricula to improve opportunities for learning for sustainability; frameworks, relevant resources and capabilities that can assist with the shaping and delivery of these policy actions and relevant pedagogies; key challenges and barriers and how they could be overcome; lessons learnt from examples of well-regarded practices in this area. The workshop included considerations related to core competences in learning for sustainability. Sustainability competences are understood as the interlinked set of knowledge, skills, and values that enable learners to effectively engage in action for a healthier planet. GreenComp, the European sustainability competence framework, and other reference documents seek to guide efforts to embed sustainability competences in the curriculum. The GreenComp framework served as a background to discussions during the meeting.


Small group social skills training (SST) is recommended to improve the social behavior and peer relations of rejected children, but child responses vary. This study explored variation in intervention experiences that emerged in a large study of a school-based SST program for peer-rejected children and associations with program outcomes. One hundred and seven peer-rejected elementary students (60% White, 15% Black, 22% Latinx, 3% Multi-racial, and 65% male) were identified by classroom sociometrics and randomly assigned to a year-long small group SST program. Normative classmates served as partners. Among the peer-rejected targets of the intervention, those with relatively better pretreatment social skills received more SST sessions and were more positively engaged, whereas those with fewer social skills and more behavior problems experienced more negative peer responses during SST sessions and less collateral support from teachers and parents. Hierarchical regressions (controlling for pretreatment scores) revealed attenuated intervention benefits for children who received more negative peer responses during SST and less parent and teacher support. The findings suggest that, within a sample of peer-rejected children, those with more severe skill deficits and elevated behavior problems at pretreatment have lower-quality SST experiences that reduce intervention benefits, even when normative classmates serve as peer partners. These issues warrant careful attention in future SST intervention design and research.

This article examines curricular development within compulsory science and mathematics education (grades k-9) in Denmark during a 20-year transition towards competency-oriented curricula. The article contains two main parts. In the first part, we describe the Danish case, emphasizing how international and national trends at the turn of the millennium led to the development of competency-oriented curricula based on a two-dimensional framework. In this framework, subject goals are separated into competency and subject matter goals. In the second part, we explore teachers’ perspectives on potentials and challenges when implementing competency-oriented teaching. Teachers found the two-dimensional framework useful when translating curricula into teaching practice. This analysis also identified four key aspects that support teachers’ work within this framework: Maintaining two-dimensionality, coherent competency goals, goals that are both purposeful and teachable, and a feasible content structure. We conclude the article by proposing a model that combines these four aspects and by suggesting possible avenues for future research and developmental processes.


Motherscholaring is an essential mode of intellectual and spiritual travel, a type of soulwork, epistemologically rooted in love, occurring at the intersections of personal and professional theories, research, and practices that move toward justice. In this conceptual paper, we creatively and collectively explore meanings of motherscholaring found through poetic inquiry. The aim of this paper is twofold: (a) to add to emergent literature on the concept of motherscholaring and (b) to offer methodological contributions to the developing field of poetic inquiry by demonstrating and discussing the process and forms of poetic inquiry that have been useful in our communal project.


Study abroad has been seen as a key ingredient in promoting teachers’ intercultural competence. Yet, its effectiveness has been unclear. The objective of the current review was to examine the relationship between study abroad and pre- and in-service teachers' intercultural competence as well as to analyze potential moderating effects. Based on 16 qualified studies, we found that study abroad was associated with teachers' intercultural competence, with a small to medium effect (ES = 0.34). The relationship did not differ between pre-service and in-service teachers. Pre-departure, during, and reentry reflective guidance was found to have an influence on the relationship between study abroad and teachers’ intercultural competence. The duration of programs can moderate the relationship, but the moderating role of cultural distance was not significant. The results and further implications for institutions and participants are discussed.

Although asking questions is the most frequently named disciplinary practice included in the C3 Framework for Social Studies State Standards, little is known about how elementary-aged students learn to develop inquiry questions. In this study, we analyzed how 19 third-grade students in the U.S. Midwest Region developed questions related to economics, geography, history, and political science across five months during the 2017–2018 school year. We found that students were generally successful with developing questions related to the disciplines, but their questions were most often closed-ended. We provide implications for supporting students’ learning as they generate inquiry questions.


The present study constitutes a preliminary effort to frame co-creativity, project-based learning and real-world problem-solving under a cultural historical activity theory framework. The paper establishes co-creativity as collective concept formation in the wild and collective mediation as primary elements for the study of real-world problem solving in higher education. This study aims at bridging gaps between co-creative real-world problem solving in higher education and knowledge, competency, action between higher education and the real world.


Background Teachers’ self-reported stress is related to the quality of teacher–student interactions and students’ learning outcomes. However, it is unclear if teachers’ physiological stress is related to child-centred teaching practices in the classroom and whether teaching practices mediate the link between teachers’ stress and students’ learning outcomes. Aims We studied the effect of teachers’ physiological stress and self-reported stress on their teaching practices and thereby on students’ learning outcomes in math. Sample A total of 53 classroom teachers and 866 Grade 1 students participated in the study. Methods Salivary cortisol in the middle of the school day and cortisol slope from morning peak to evening were used as indicators of teachers’ physiological stress, in addition to self-reported teaching-related stress. Teaching practices were observed with the ECCOM instrument. Students’ math skills controlled for gender and previous skills were used as a measure of learning outcomes. Data were analysed with a two-level SEM. Results Teachers’ physiological stress did not have an effect on teaching practices or students’ math skills. Teachers reporting less stress used relatively more child-centred teaching practices compared with teacher-directed ones. These practices had a marginal effect on classroom-level differences in the gain of students’ math skills in Grade 1. There was neither a direct nor indirect effect from teachers’ stress on students’ math skills. Altogether, our model explained 77% of classroom-level variance in math skills. Conclusions Teachers’ self-reported stress has an effect on their teaching practices, which, in turn, have a marginal effect on students’ learning outcomes.

A revised abstract is as follows: Cantonese operatic singing is widespread in Hong Kong with numerous amateurs learning in community club settings. However, limited research has been taken on how amateurs learn in the community. This article reports on an autoethnographic study of a community music club catering to Cantonese operatic singing in Hong Kong. The author joined the club for six years as a full member and attended weekly gatherings to identify the features characterising informal learning with participant observations and informal conversations as research methods. Trustworthiness of the study was built on developed rapport with three members and lengthy period of data collection. Influenced by Chinese traditional culture and beliefs, a proactive learning attitude with industry, a competency of self-learning, and the development of positive inter-personal relationships were keys to earning the respect of senior members for access of learning. This study implies a need to balance between informal learning and a systematic pedagogy.

Loisy, C. (2022, septembre 11). Former pour le développement de compétences transversales. Présenté à La transversalité au coeur des apprentissages. Consulté à l’adresse https://hal.science/hal-04063647

Dans le contexte contemporain, les politiques éducatives incitent les établissements à former pour des compétences : la demande est assez ouverte, ce qui peut susciter des inquiétudes et des résistances, mais le revers positif est que cette situation permet aux établissements de fournir une réponse en lien avec leurs caractéristiques (publics accueillis, dynamique interne...). Cette conférence défendra (1) que l’approche-programme ou approche curriculaire intégrée permet de se saisir de la demande pour élaborer une réponse adaptée au contexte d’exercice et au sens que donnent les acteurs à l’approche par compétences, réponse qui prend la forme du profil de sortie souhaité par l’équipe pédagogique pour l’étudiant ; (2) que cette réponse si elle est construite collectivement, contribue non seulement à la qualité et à la lisibilité des programmes, mais peut aussi être une source de développement professionnel pour les enseignants. La définition de la compétence ne fait pas consensus, mais tout le monde s’accorde pour reconnaître sa dimension praxéologique : elle est intimement liée à l’activité qu’elle permet de générer. La compétence est aussi étroitement liée à la situation dans laquelle l’activité se déroule, d’une part, parce que tout type d’activité est propre à une famille de situations (où sont mobilisées et combinées des ‘ressources’ similaires pour répondre à des buts similaires), d’autre part, parce que les contingences de la situation permettent ou non que la compétence s’actualise. Cette conférence situera les compétences à deux niveaux : le programme (où se définit le profil de sortie souhaité) et le niveau pédagogique (où les compétences sont mobilisées et régulées) ; elle donnera les définitions de plusieurs notions connexes à l’approche par compétence : tâche prescrite / tâche redéfinie / activité réalisée ; situation et classe de situations. Si l’on s’en tient aux compétences professionnelles, des interrogations apparaissent compte tenu de l’incertitude qui plane sur les métiers de demain, en revanche, les compétences ‘transversales’ font consensus en raison de leur caractère de généralité. Une compétence est transversale lorsqu’elle n’a pas d’ancrage disciplinaire ou professionnel : le risque est alors de détourner l’approche par compétences des situations où les contenus enseignés pourraient être mobilisés et régulés, et, in fine, de ne pas agir sur la construction des savoirs. Par ailleurs, la
transversalité des compétences est scientifiquement discutée car la compétence transversale n’est pas liée à un objet précis, si elle peut sembler acquise lorsqu’elle est mobilisée sur un objet donné, le transfert n’est jamais assuré. Toutefois, inscrire certaines compétences transversales dans le profil de sortie peut contribuer à leur donner une visibilité lorsqu’il s’agit de compétences clés.


The urgency of creating competent workers has been a national initiative for over a decade now as reflected in legislative requirements for accountability in higher education. Much of the literature on the topic of American higher education internationalization efforts has centered around teaching college students practical 21st-century competency-based skills like global competence. Global competence describes a set of skills centered around a knowledge base about world geography, cultures, global issues, and the skills and character to engage sensibly and effectively in a global setting. But effectively teaching global competence by instructors and learning it by the students is not easy. The purpose of this article is to discuss global competence as a competency-based education as well as address the challenges to global competence instruction and acquisition and opportunities for improvement in this area of learning.


Policy makers around the world recognize the importance of developing young people’s 21st century skills like problem solving, creative thinking, self-regulation and collaboration. Many countries also include these skills as part of the intended...


Insufficient sleep and sleepiness are common in adolescence and can negatively impact school performance. The current study examined sleep duration and sleepiness in academic performance and cognitive processes in early adolescence. Middle school students (N = 288; Mage = 12.01; 54% female; 48% Black, 37% White, 10% Hispanic) wore activity watches for seven nights, reported on daytime sleepiness, and completed computerized tests of attention and episodic memory. Academic performance was assessed with parent and teacher reports, and math and English/language arts (ELA) grades. Results revealed unique associations between daytime sleepiness and academic outcomes, but not cognitive processes. Both shorter and longer sleep duration were related to fewer academic enablers and lower academic skills and math grades. Students with the highest levels of academic performance occurred near 8 h of sleep per night. These results support the importance of addressing daytime sleepiness and optimal sleep duration in early adolescents.

This study investigated associations between kindergarten teachers’ (N = 208) depressive symptoms and students’ (Ghanaian nationals, N = 1490, Mage = 5.8) school-readiness skills (early literacy, early numeracy, social–emotional skills, and executive function) across 208 schools in Ghana over one school year. Teachers’ depressive symptoms in the fall negatively predicted students’ overall school-readiness skills in the spring, controlling for school-readiness skills in the fall. These results were primarily driven by social–emotional skills (r = .1–.3). There was evidence of heterogeneity by students’ fall skill levels; teacher depressive symptoms predicted more negative spring overall school readiness for children who had higher fall school-readiness skills. Findings underscore the importance of teachers’ mental health in early childhood education globally, with implications for policy and practice.


While recent reform-based efforts have shifted the emphasis towards engaging children in science practices, little research has considered how preschool-age children take first steps towards engagement in evidence-based explanations or modelling practices nor the role museum-settings might provide. Using a theoretical perspective that science emerges through interaction as it is practiced, we analysed videos of four ~30-min programs for 3-to-5-year-old children at a small children’s science museum. Findings suggest that the children’s explanations, which were co-constructed with the museum educator, ranged in sophistication from an implicit use of evidence to an explicit use of evidence and use of reasoning. We also found that the children used modelling practices to support their development of evidence-based explanations both as a method to generate evidence and to communicate their explanations. An important factor in how we interpreted children’s explanations and modelling practices was through their use of gestures, which they often used to indicate their evidence or other elements of meaning while communicating during the investigations. Our findings provide evidence for young children’s initial entry point for co-constructed, evidence-based explanations as they were produced through interactions with the educator and peers.


The aim of this research was to assess students’ ability to explain scientific phenomena by means of a POE pedagogical tool. To achieve this aim, we conducted home experiments in a digital environment. In this qualitative and transversal ex-post-facto research, 775 pupils (aged 13–18 years) enrolled in compulsory secondary education from the Canary Islands were recruited. Data were collected using a digital questionnaire (self-designed), which showed acceptable reliability (α = 0.8). According to the results, multimodal POEs with home experiments within multimedia settings were perceived by the pupils to be a useful tool for teaching science on day-to-day. Students also found the POE activities to be motivating and engaging. Lastly, we present the calculation of POE scores and a method for assessing scientific literacy.

Ruppert, J., Ayala, J., Bamaba, C., Badiei, Y., & Wilmanski, J. (2023). ‘I didn’t know what I was doing, until I went there’: a case study exploring the range of student STEM internship

The COVID-19 pandemic has accelerated a transition to flexible remote and hybrid work arrangements. This shift presents a challenge to colleges and universities as they prepare the next generation of STEM professionals in the knowledge economy. This case study of student experiential learning during the time of critical change from the Spring of 2020 through Spring of 2022 focused on how students, typically aged 20–23, contended with their professional development amidst changing patterns in workplace community, culture, and activities. We expected that students would struggle to achieve a greater understanding of situated workplace community practices; however, the data problematised these general assumptions. The findings highlight the variation in student experiences around these themes and are discussed in the context of scaffolding of student internships in intrapersonal, interpersonal, and cognitive domains.


Seisekeyeva, N. (2022). *L'utilisation des plateformes pédagogiques pour développer des compétences de communication orale en FLE au Kazakhstan: aspects didactiques et pédagogiques* (Phdthesis, Aix-Marseille Université, France; Université Kazakhe Nationale Pédagogique Abaï, Kazakhstan). Consulté à l'adresse [https://hal.science/tel-04073449](https://hal.science/tel-04073449)


Contextual features of assessments can influence the ideas students draw from and the ways they assemble knowledge. We used a mixed-methods approach to explore how surface-level item context impacts student reasoning. In study 1, we developed an isomorphic survey to capture student reasoning about fluid dynamics, a crosscutting
phenomenon, in two item contexts (blood vessels, water pipes), and administered the survey to students in two different course contexts: human anatomy and physiology (HA&P) and physics. We observed a significant difference in two of 16 between-context comparisons and a significant difference in how HA&P students responded to our survey compared with physics students. In study 2, we conducted interviews with HA&P students to explore our findings from study 1. Using the resources and framing theoretical framework, we found that HA&P students responding to the blood vessel protocol used teleological cognitive resources more frequently compared with HA&P students responding to the water pipes version. Further, students reasoning about water pipes spontaneously introduced HA&P content. Our findings support a dynamic model of cognition and align with previous work suggesting item context impacts student reasoning. These results also underscore a need for instructors to recognize the impact of context on student reasoning about crosscutting phenomena.


The article proposes looking at children’s literature, particularly the form of the picture book, as an educational resource for producing body awareness in school. Eight reading steps for as many bodily actions aimed at naming the body, activating it, getting to know it and moving it in space, on and off the pages; between grounding, listening, breathing, playing and moving, the rediscovery of gestures and anatomical truths invites to deepen self-knowledge as a preliminary act to the encounter and relationship with the other and with the environment. The picture books by their specificities of short form and cross-over, offer, even in non-fiction production, the possibility of bringing attention back to the body dimension within the school and educational debate, where it lives today in a state of malaise and oblivion. Meaningful conversations, explorations and relationships flow from the pages of the albums: research on language as a tool that gives dignity and value to each person, and encounters with the artistic representation of the world as an infinite mirror of its multiplicity and variety, constitute valuable opportunities for an education that is aware of the wholeness of learners and teachers and the integrated, erotic and embodied dimension of their relationship.


Pedigree problems are typical tasks in school genetics classes. However, they are perceived as difficult and often are not successfully completed. Therefore, the purpose of this study is to determine relevant factors that might have an impact on success in pedigree analysis. Based on previous research, we investigate the influence of the superficial appearance of the pedigree (relating to a well-known misconception), the mode of inheritance, content knowledge, reasoning abilities, the last biology grade, and mental effort. This means, we are simultaneously examining student and task characteristics. For this purpose, we analyse data from N = 135 students, who solved four pedigree problems each, using Generalised Linear Mixed Models (GLMMs). Specifically, we use multilevel logistic regression to determine the influence of the variables in question. The final model shows mixed results: For example, the represented mode of inheritance has no significant influence. The superficial appearance of the pedigree, in contrast, is one of the important predictors of success in identifying the present mode of
inheritance. Therefore, our results imply that students make decisions based on misconceptions when analysing pedigree problems. This and all other results are discussed in order to infer implications for teaching and learning pedigree analysis.


Undergraduate biology students’ molecular-level understanding of stochastic (also referred to as random or noisy) processes found in biological systems is often limited to those examples discussed in class. Therefore, students frequently display little ability to accurately transfer their knowledge to other contexts. Furthermore, elaborate tools to assess students’ understanding of these stochastic processes are missing, despite the fundamental nature of this concept and the increasing evidence demonstrating its importance in biology. Thus, we developed the Molecular Randomness Concept Inventory (MRCI), an instrument composed of nine multiple-choice questions based on students’ most prevalent misconceptions, to quantify students’ understanding of stochastic processes in biological systems. The MRCI was administered to 67 first-year natural science students in Switzerland. The psychometric properties of the inventory were analyzed using classical test theory and Rasch modeling. Moreover, think-aloud interviews were conducted to ensure response validity. Results indicate that the MRCI yields valid and reliable estimations of students’ conceptual understanding of molecular randomness in the higher educational setting studied. Ultimately, the performance analysis sheds light on the extent and the limitations of students’ understanding of the concept of stochasticity on a molecular level.


Measurement uncertainty is a key topic in the university physics laboratory curriculum. In this study, we investigate students’ ability to draw conclusions from measurement data and reasoning about measurement uncertainty in inquiry labs. This investigation centres around a task where students conclude whether measurements from two experiments that differ only by one setup agree or disagree. Surveys were administered in introductory physics courses before and after Workshop Physics instruction, which utilises an activity-based, guided-inquiry approach. Student reasoning was characterised using the point and set paradigms. Think-aloud interviews were conducted to gain deeper insights into students’ interpretations of measurement uncertainty. The survey results showed that students tended to draw conclusions based on the means without appropriately accounting for uncertainty even if many recognised the need to evaluate uncertainty. The number of decimal places had no influence on students’ ability to draw conclusions. After instruction, students’ reasoning shifted from point toward set or mixed paradigm, but their ability to draw conclusions did not improve. During the interviews, students demonstrated sophisticated interpretations about measurement uncertainty and data analysis strategies they used. Students recognised measurement uncertainty is inevitable and were able to identify possible sources of uncertainty. We discuss implications for instruction around measurement uncertainty.

Expectancy-value theory of motivation (EVT) suggests that student values influence their likelihood of putting in the effort required to learn, and these values can be shaped by student characteristics, such as their experiences, sociodemographics, and disciplinary norms. To understand the extent to which these characteristics relate to students’ values, we surveyed 1162 graduating science, technology, engineering, and mathematics (STEM) students across four universities using the previously developed and validated Survey of Teaching Beliefs and Practices for Undergraduates (STEP-U). The STEP-U survey included Likert questions to capture students’ values of 27 cross-disciplinary skills and the frequency with which they experienced 27 instructional methods thought to develop particular skills. Exploratory factor analyses (EFA) showed an understandable factor structure for both students’ perceived value of cross-disciplinary skills and frequency of classroom experiences. Using multiple regression, we identified differences in values that were associated with classroom experiences, STEM discipline, participation in undergraduate research, and student sociodemographics. Findings were generalizable across institutions and disciplines. The theoretical framework (EVT), the broad data collection (four institutions with multiple disciplines), and the type of data analyses (e.g., EFA) used provide theoretical, methodological, and practical contributions and suggest additional directions for future research.


This paper estimates the causal effect of education-oriented vs. care-oriented preschools on child development. We use a unique quasi-experiment from Japan that exploits plausibly exogenous regional and temporal variation in the relative availability of different preschools. We find that attendance at an education-oriented preschool is associated with significant improvements in mathematical and linguistic achievement that manifest later in adolescence. Positive effects can also be found for socioemotional measures. Ascending marginal treatment effect (MTE) curves suggest an inverse selection pattern: children that are least likely to enroll in the education-oriented preschool gain the most from it. This heterogeneity is mainly due to specific features of education-oriented preschools (i.e., educational orientation, shorter operating hours, and peer effects), while gains from enrollment in care-oriented preschools appear more homogeneous.


There is limited evidence of health interventions impact on cognitive function and educational outcomes. We build on two prior systematic reviews to conduct a meta-analysis, exploring the effects of one of the most consequential health interventions, malaria chemoprevention, on education outcomes. We pool data from nine study treatment groups (N=4,075) and outcomes across four countries. We find evidence of a positive effect (Cohen’s d = 0.12, 95% CI [0.08, 0.16]) on student cognitive function, achieved at low cost. These results show that malaria chemoprevention can be highly cost effective in improving some cognitive skills, such as sustained attention. Moreover, we conduct simulations using a new common metric (learning-adjusted years of development) to compare cost-effectiveness across diverse interventions. While we might expect that traditional education interventions provide an immediate learning gain, health interventions such as malaria prevention can have surprisingly cost-effective education benefits, enabling children to achieve their full human capital potential.


Socioeconomic status has been a long-time discussed topic due to its impact on children’s school paths. However, despite extant research indicating strong relationships between students’ socioeconomic status, use of self-regulated learning strategies, and academic achievement, research on interventions addressing these topics is limited. This investigation aimed to examine the effectiveness of a school-based, narrative-based program to promote self-regulated learning strategies and academic performance among fourth-graders from low socioeconomic backgrounds. Twelve classes were randomly assigned to the intervention or control group. The students from low socioeconomic status backgrounds in each group were enrolled in the study. A quasi-experimental study with three measurement moments was conducted. Data were gathered from self-reported questionnaires and an on-task measure. Findings indicate that the program was efficacious in promoting the use of self-regulated learning strategies and academic performance in children from low socioeconomic backgrounds. This research paper discusses both practical implications and future research guidelines.

The paper investigates changes in the quality of the labour input in Poland in 2006-2020. Labour quality – which captures compositional changes of the workforce, referring to education, experience, gender and occupation – substantially improved, growing on average by 0.55% a year, compared to much slower growth of unadjusted labour input (hours worked) of 0.11% a year. Growth in the labour quality, which means improvement in workers’ characteristics, was mainly driven by positive changes in the educational composition of workers. Labour quality growth showed less volatility compared to growth of hours worked in the economy and it was negatively correlated to both growth of hours worked and GDP growth, mitigating procyclicality of the labour input. Additionally, falling tertiary education wage premia are documented.


This study analyzed the effect of the Fund for the Maintenance and Development of Basic Education and for the Appreciation of Education Professionals (Fundeb) on the National System of Basic Education Assessment (Saeb) results of Brazilian municipalities by estimating a spatial panel model with information from 2007 and 2017, which include the 10 years of the fund’s implementation. The results indicated that the 10% increase in the Fundeb amount per student received by the municipality raised the Saeb score by approximately one point. Furthermore, the increase in the fund’s value in neighboring municipalities contributed to increasing the municipality’s Saeb score by approximately three points. These results are evidence in favor of the hypothesis that Fundeb has encouraged the management and adoption of good practices in municipal education, which influence the decisions and behavior of the neighboring municipalities’ managers to also improve their practices and results.


How does a large structural change to the labor market affect education investments made at young ages? Exploiting differential exposure to the national decline in routine-task intensity across local labor markets, we show that the secular decline in routine tasks causes major shifts in education investments of high school students, where they invest less in vocational-trades education and increasingly invest in college education. Our results highlight that labor demand changes impact inequality in the next generation. Low-ability and low-SES students are most responsive to task-biased demand changes and, as a result, intergenerational mobility in college education increases.


In this paper we study social stratification in the impact of poor air quality on educational achievement. We address two main questions. First, are students from socioeconomically disadvantaged families more likely to attend schools with poor air quality? Second, is the effect of bad air quality for school results the same for children from high and low socioeconomic status families? We use a novel data set with test scores in math and
reading for 456,508 students in 8th grade in a test administered nationally in Italy in 2019. We geocode the location of 6,882 schools based on their addresses and link the level of air pollution of the area around the school, using data on fine particulate matter provided by the Atmospheric Composition Analysis Group. To deal with possible confounders we use municipality fixed effects and control for an indicator of the characteristics of the school neighbourhood, using administrative fiscal data of the real estate values of the area around the school. We have three main findings. First, there is no SES gradient in the exposure to poor air at school. Second, we find a small but robust negative effect of particulate matter 2.5 (PM2.5) on test scores in math but not in reading. Third, this effect is mostly concentrated among low SES students. Conversely, high SES students are largely unaffected by exposure to poor air quality at school. We conclude that exposure to air pollution can exacerbate inequalities in education and the intergenerational transmission of disadvantage.


The growth mindset, or the belief that intelligence can be increased with effort, has been shown to be positively associated with improved learning outcomes. This association has been observed in a few studies that inquired into reading outcomes, and fewer studies that looked into reading in a second language. The current study used data from the Programme for International Student Assessment (PISA) 2018 database to investigate the relationship between growth mindset and reading proficiency of Filipino students learning English. Data were from 6766 students who spoke a Philippine language at home, who were learning reading in English in high school, and who were assessed for reading proficiency using English texts. The study also inquired into the role of the students’ socioeconomic status (SES) and controlled for some teacher-related and motivation-related variables. Results of hierarchical regression analysis showed a weak but significant positive relationship between growth mindset and reading proficiency. The relationship between SES and reading proficiency was stronger; more importantly, SES moderated the relationship between growth mindset and reading proficiency. The positive relationship between growth mindset and English reading proficiency became weaker as the students’ SES decreased; the relationship was nonsignificant among students with the lowest SES. The discussion refers to SES differences in reading English language-learning environments in the Philippines and considers how resources in the learning environment enable (or constrain) the role of growth mindset in improving learning outcomes.


Federal incentives and requirements under the Obama administration spurred states to adopt major reforms to their teacher evaluation systems. We examine the effects of these reforms on student achievement and attainment at a national scale by exploiting the staggered timing of implementation across states. We find precisely estimated null effects, on average, that rule out impacts as small as 0.015 standard deviation for achievement and 1 percentage point for high school graduation and college
enrollment. We also find little evidence that the effect of teacher evaluation reforms varied by system design rigor, specific design features or student and district characteristics. We highlight five factors that may have undercut the efficacy of teacher evaluation reforms at scale: political opposition, the decentralized structure of U.S. public education, capacity constraints, limited generalizability, and the lack of increased teacher compensation to offset the non-pecuniary costs of lower job satisfaction and security.


The purpose of this study was to understand the extent to which teachers experience costs to caring (e.g. secondary traumatic stress, burnout, and intent to leave the profession) and to test a Teacher Costs to Caring Resilience Model (TCCRM) using structural equation modeling. Participants consisted of 542 teachers in the Northeastern U.S. Findings suggested that the personal protective factors of resilience and compassion satisfaction showed a negative direct effect on costs to caring. Further, the professional protective factor of working in a positive school climate showed a negative indirect effect specifically on burnout. Focusing on improving teacher resilience, compassion satisfaction, and school climate using a systems-based approach modeled on the TCCRM is suggested.


A large literature establishes that cognitive and non-cognitive skills are strongly correlated with educational attainment and professional achievement. Isolating the causal effects of these traits on career outcomes is made difficult by reverse causality and selection issues. We suggest a different approach: instead of using direct measures of individual traits, we use differences between individuals in the presence of genetic variants that are associated with differences in skills and personality traits. Genes are fixed over the life cycle and genetic differences between full siblings are random, making it possible to establish the causal effects of within-family genetic variation. We link genetic data from individuals in the Swedish Twin Registry to government registry data and find evidence for causal effects of genetic differences linked to cognitive skills, personality traits, and economic preferences on professional achievement and educational attainment. Our results also demonstrate that education and labor market outcomes are partially the result of a genetic lottery.


Performance-based funding models for higher education, which tie state support for institutions to performance on student outcomes, have proliferated in recent decades. Some states now tie most of their higher education appropriations to completion outcomes and include bonus payments for historically underrepresented groups to address equity gaps in postsecondary attainment. Using a Synthetic Control Method
research design, we examine the heterogenous impact of these funding regimes in Tennessee and Ohio on completion outcomes for racially minoritized students and students from historically overrepresented racial groups. Across both states, we generally estimate null or negative effects on credentials conferred to racially minoritized students and null or positive effects on credentials conferred to students from historically overrepresented racial groups. As a result, we find that performance-based funding policies widened the racial gap in certificate completion in Tennessee and in baccalaureate degree completion in Ohio. Across both states, the estimated impacts on associate degree outcomes are also directionally consistent with performance-based funding exacerbating racial inequities in associate degree attainment.

This paper examines the effects of a comprehensive performance pay program for teachers implemented in high-need schools on students’ longer-run educational, criminal justice, and economic self-sufficiency outcomes. Using linked administrative data from a Southern state, we leverage the quasi-randomness of the timing of program adoption across schools to identify causal effects of the school reform. The program improved educational attainment and reduced both criminal activity and dependence on government assistance in early adulthood. We find little scope for student sorting or changes in the composition of teacher workforce, and that program benefits far exceeded its costs. We propose mechanisms for observed long-run effects and provide evidence consistent with these explanations. Several robustness checks and placebo tests support our findings.

This paper estimates the effect of a full year of the COVID-19 pandemic on school performance, focusing on students at the end of upper secondary school who are about to enter the labour market or start university without having had the opportunity to recover. Using longitudinal data from standardised tests for the student population nationwide, we use difference-in-differences models to analyse the performance of two cohorts of students in Italy: a cohort that has never been exposed to the pandemic and a cohort that graduated in 2021. We find that the pandemic had a huge negative impact on students’ performance in mathematics and reading (approximately 0.4 s.d. in both domains). Low-achieving pupils suffered the most, increasing the gap between strong and poor performers. The relative position of girls improved compared to boys. Different from the findings from the existing literature, inequalities by parental education remained largely unchanged.

This study employs a gendered relative resource approach to examine whether the importance of relative resources varies by couples’ household income in shaping
changes in the gender division of labour after first birth. Scholarship has long argued that the gender division of labour within different-sex couples is influenced by partners’ relative resources. However, couples face class-based constraints that may alter the relevance of relative resources in shaping changes in gender divisions of labour following the transition to parenthood. This study compares couples’ paid work and housework before and up to four years after first birth, using 28 waves of the British Household Panel Survey and the UK Household Longitudinal Study (N = 1,606 couples). I find that the effect of relative resources on changes in couple’s paid work and housework behaviour after first birth varies substantially by household income. Among higher-income couples, women’s paid work and housework time changes less among those with high relative earnings and more among those with low relative earnings, while men’s time allocation varies little after first birth. In contrast, among low-income couples, women’s paid work time and share decreases most after first among female breadwinners while their male partners’ paid work time increases substantially. These findings reflect the greater constraints that low-income parents face in reconciling work and family and highlight the need for greater attention to class interactions in the process of gender specialization in both research and work-family policy.


While there is a growing literature on family health spillovers, questions remain about how sibling disability status impacts educational outcomes. As disability is not randomly assigned this is an empirical challenge. In this paper we use Danish administrative data and variation in the onset of type 1 diabetes to compare education outcomes of focal children with a disabled sibling to outcomes of focal children without a disabled sibling (matched on date of birth of the focal child, sibling spacing and family size). We find that having a disabled sibling significantly decreases 9th grade exit exam GPAs, while having no impact on on-time completion of 9th grade. However, educational trajectories are impacted, as we find significant decreases in high school enrollment and significant increases in vocational school enrollment by age 18. Our results indicate that sibling disability status can generate economically meaningful inequality in educational outcomes.


No Spending without Representation: School Boards and the Racial Gap in Education Finance by Brett Fischer. Published in volume 15, issue 2, pages 198-235 of American Economic Journal: Economic Policy, May 2023, Abstract: This paper provides causal evidence that greater minority representation on sc...


An ethnic gap in education is prevalent around the world. This remains the case in Vietnam, a country that has achieved phenomenal economic growth and raised the educational attainment of the public. This paper examines the impact of language
policy reorientation represented by the textbook supply program in Vietnam on the ethnic gap in children’s learning measured by a vocabulary test. Applying difference-in-differences estimation to the Young Lives data between 2006 and 2015, we show that the program became more effective in narrowing the ethnic gap as the education policy became reoriented toward ethnic minority children. A causal mediation analysis reveals that increased study time is possibly a moderate mediator through which the language policy reorientation helped narrow the ethnic gap for the young cohort over and above the direct impact, but this was not the case for the old cohort. This paper, therefore, alludes to the importance of delivering learning materials carefully designed for the target group to bring about meaningful behavioral changes. It also underscores the importance of teaching in the right context, corroborating the findings from recent studies on teaching at the right level.


Even though place-based policies involve large transfers toward low-income neighborhoods, they may also produce territorial stigmatization. This paper appeals to the quasi-experimental discontinuity in a French reform that redrew the zoning map of subsidized neighborhoods on the basis of a sharp poverty cut-off to assess the effect of place-based policies on school enrollment into lower secondary education. Using a difference-in-differences approach, we find strong evidence of stigma from policy designation, as public middle schools in neighbourhoods below the policy cut-off, which qualified for place-based subsidies, saw a significant 3.5pp post-reform drop in pupil enrollment, compared to their counterfactual analogues in unlabeled areas lying just above the poverty threshold. This « zone-and-shame » effect is immediate but does not persist, as it is only found for the first pupil-entry cohort in middle schools immediately after the reform. We show that it was triggered by the behavioral reactions of parents from all socioeconomic backgrounds, who avoided public schools in policy areas and shifted to those in other areas or, only for richer parents, to private schools. We uncover, on the contrary, only weak evidence of stigma reversion after an area loses its designation, suggesting hysteresis in bad reputations.


High rates of school dropout and overeducation are typical problems faced by developing economies. This paper addresses these issues in a unique theoretical model that accounts for complementarity between household and infrastructural investment in education production function on the one hand, and school and higher education on the other hand. The results derived in this paper show that a reallocation of the education budget in favor of school education can solve both problems at the same time if certain conditions are satisfied. Otherwise, reallocation aggravates the problems. This paper questions the efficacy of the widely practiced budget reallocation policy in favor of school education, and in turn, shows that reallocation cannot eliminate school dropouts.

We provide evidence from a randomized controlled trial on the effectiveness of a novel, 100-percent online math tutoring program, targeted at secondary school students from highly disadvantaged neighborhoods. The intensive, eight-week-long program was delivered by qualified math teachers in groups of two students during after-school hours. The intervention significantly increased standardized test scores (+0.26 SD) and end-of-year math grades (+0.48 SD), while reducing the probability of repeating the school year. The intervention also raised aspirations, as well as self-reported effort at school.


Linked administrative data on education, health, social services, and crime from British Columbia, Canada, are used to document the relationship between measures of secondary educational attainment and indicators of poor outcomes later in life. Poor outcomes are seen to manifest primarily among high school dropouts. Next, we document the ability of characteristics observed in administrative data in grade 4 to predict high school graduation using a very simple model. It is straightforward to identify more than one fifth of future dropouts reasonably accurately. Non-cognitive measures (esp. social and emotional characteristics) are better predictors of educational attainment than cognitive ones. We discuss the implications of these findings for a scientific approach for developing interventions to prevent poor outcomes later in life.


We provide the first evidence on how workers invest in human capital after losing ability. Using quasi-random work accidents in Danish administrative data, we find that workers enroll in bachelor’s programs after physical injuries, pursuing degrees that build on their work experiences and provide pathways to cognitive occupations. Exploiting differences in eligibility driven by prior vocational training, we find that higher education moves injured workers from disability benefits to full-time employment. Reskilled workers earn 25% more than before their injuries and do not end up on antidepressants. Without higher education, by contrast, these workers end up entirely on disability benefits and often resort to taking antidepressants. Reskilling subsidies for injured workers pay for themselves four times over, and current rates of reskilling are substantially below the social optimum, especially for middle-aged workers.


Declines in state appropriations have decreased the ability of public research universities to hire faculty, particularly tenure line faculty. Many universities have grown nonresident enrollment as a substitute for state funding. This study investigates whether faculty hiring was associated differently with nonresident enrollment growth versus resident enrollment growth. Grounded in labor demand theory, to study this relationship we estimate institution-level panel statistical models for the academic years 2002–2003 to 2016–2017.
Results indicate that nonresident enrollment growth had a stronger positive association with full-time tenure line hires than resident enrollment growth. In contrast, employment of full-time and part-time non-tenure track faculty was not associated differently to nonresident versus resident enrollment growth. The institutional policy implication is that nonresident enrollment growth may be a viable strategy to finance tenure line faculty hires. However, state policymakers should recognize that many public research universities and most regional public universities face weak nonresident enrollment demand and are unlikely to compensate for declines in state funding by growing nonresident enrollment.


This brief describes how several commonly used per-pupil funding measures derived from federal data include passthrough funding in the numerator but exclude students attached to this funding from the denominator, artificially inflating per-pupil ratios. Three forms of passthrough funding for students not educated by the school district where they reside are included in district-level funding totals: payments to private schools (V91), payments to charter schools (V92), and payments to other school systems (Q11). We illustrate this error in Pennsylvania and New Jersey and use data from all 46 impacted states to show how racial and economic funding gaps are understated as a result.


This study estimates the average multivalued treatment effects (ATET) of preschool attendance measured in years, on student’s international reading, math and science test z-scores in Grade 4. The causal treatment effects come from multiple-years observational data on three levels of preschool duration before entering Grade 1. Among European countries that participated in five international education surveys, PIRLS (2006, 2011, 2016) and TIMSS (2015, 2019), those renowned for having adopted early childhood education (ECE) programs starting at a young age, growing in intensity and improving the number of qualified child-care providers were selected. In addition to four
Nordic countries (Denmark, Finland, Norway, Sweden), France, two Belgium jurisdictions (French, Flemish), and two participating Canadian provinces, Ontario and Québec, were retained. The approach exploits the repeated surveys and cross-national comparative international z-scores tests. The data sets besides their test scores provide unique information from a parent questionnaire on their education and occupation levels, literacy and numeracy preschool activities, on child preschool educational childcare span in years and two program types (for some years: before and after age 3). Four key findings can be identified from the data sets and estimations. First, there are large differences in the average scale score and percentiles deviation when converted into the z-score metric, for all categories of test scores across jurisdiction participants, and over time. Second, the estimates of the preschool treatment effects display rather heterogeneous impacts on z-scores with increasing significant and positive achievements over year surveys. Third, in general, preschool treatment effects are scattered in function of duration, programs types, and parental education. Four, results highlight stark gaps in scores related to parental education, socioeconomic statuses, and home learning resources for all year-samples. Evidence from a diversity of estimated gradients suggests established social inequalities in education achievement at ages 9-10 in Grade 4 could be difficult to reverse, even in cases where preschool education and care are implemented at a very young age in rich countries with very generous family policies.


En 2019, dernière année disponible pour les comparaisons internationales, en France, les dépenses d’éducation au sens des comparaisons internationales de l’OCDE représentent 5,2 % du PIB. Cette part dépasse la moyenne des pays de l’OCDE (4,9 %) mais aussi celles observées en Italie, Espagne et Allemagne. L’effort est plus élevé aux États-Unis, Royaume-Uni et Norvège. L’enseignement tous niveaux confondus est financé principalement par le secteur public : État et collectivités territoriales (83 % en moyenne OCDE). En France, ce financement est un peu plus élevé (86 %). Pour l’enseignement supérieur, la part du financement public est plus faible mais reste élevée en France (75 % vs 66 % en moyenne OCDE) : dans la majorité des autres pays, les familles participent davantage au financement des études supérieures. En 2019, le coût moyen d’un élève scolarisé en France tous niveaux confondus est au-dessus de la moyenne OCDE (13 050 équivalents dollars vs 11 990). C’est particulièrement le cas dans le second cycle du secondaire. En revanche, dans l’enseignement élémentaire, la dépense moyenne par élève en France se situe en dessous de la moyenne internationale. La dynamique entre 2012 et 2019 est portée en France par la politique de priorité au primaire, avec une hausse de 1,7 % par an du coût moyen dans l’élémentaire sur cette période (vs + 0,4 % tous niveaux confondus)


Education is perceived to have a positive impact on a variety of health outcomes. However, it is unclear how causal this association is or what could account for the observed relationship, especially in low-income countries. This study examined the educational gradient in dietary diversity among young women using individual-level
survey data from Zimbabwe. A parametric fuzzy regression discontinuity design was used in the empirical analysis, with school reform exposure serving as an instrumental variable for educational attainment. The results show that increased schooling improves dietary diversity among women and that this effect is large and statistically significant. An examination of the potential mechanisms by which education improves dietary diversity revealed that women with more education are more likely to engage with print media by reading newspapers or magazines, to be literate, to access prenatal care when pregnant, to be wealthier, to have fewer children, and to live in metropolitan areas. These findings suggest that expanding educational opportunities, particularly for young girls in developing countries like Zimbabwe, could be a useful policy strategy to promote healthy eating among young women and, as a result, could enhance population health and nutrition outcomes.


L’objectif de ce livre est de montrer qu’en République Démocratique du Congo, l’éducation contribue à la croissance économique. L’auteur identifie le rôle dans les modèles économiques des différentes variables après l’estimation : de produit intérieur brut réel par habitant (PIBH) ; du taux brut de scolarisation primaire (TBSP) ; du taux brut de scolarisation secondaire (TBSS) ; du taux brut de scolarisation tertiaire (TBST) ; du taux d’inflation (TINFL) ; de la part des dépenses publiques en éducation (DEP). Il procède par une analyse statistique et économétrique des données plus précisément au modèle Structurel du Vecteur Autorégressif (SVAR), de 1980 à 2020. Pour Frédéric Makengo, les variables de l’éducation contribuent positivement à court et long terme au PIB réel par habitant, les chocs positifs sur le produit intérieur brut réel par habitant (PIBRH) se traduisent par un effet positif sur l’éducation et la croissance économique.


Describes the paths to the Ph.D. and the subsequent careers of the first 15 women to earn Ph.D.s from the University of California. It covers: Milicent Washburn Shinn (1898), Jessica Blanche Peixotto (1900), Alice Robertson (1902), Edna Earl Watson Bailey (1910), Annie Dale Biddle Andrews (1911), Myrtle Elizabeth Johnson (1912), Lillian Ruth Matthews (1912), Emma Phoebe Waterman Haas (1913), Anna Estelle Glancy (1913), Frances Lyle Gillepsy (1914), Rosalind Wulzen (1914), Olga Louise Bridgman (1915), Helen Margaret Gillkey (1915), Olive Swezy (1915), Irene Agnes McCulloch (1916).


Despite high prices, many college students do not re-file the Free Application for Federal Student Aid (FAFSA) or file late, making college less affordable. Low-cost technological interventions delivering personalized information and/or advising may improve refiling and academic outcomes, but questions remain regarding the efficacy of this approach...
at scale. This multi-pronged randomized experiment tested informational and framing text message interventions for a national sample of approximately 10,000 undergraduates. The text outreach caused earlier FAFSA re-filing for some students. However, gains in re-filing during the active intervention period were not sustained after the intervention concluded and did not translate into additional federal financial aid or improved postsecondary persistence or attainment. Implications for the scaling and targeting of nudging are discussed.


We propose, in this paper, a novel approach to modelling education and human capital formation in a computable general equilibrium model. Rather than adopting microeconomic-based assumptions of human capital formation, we look for an empirical relationship between labor force composition and expenditure in education services. After realizing a set of econometric estimates, we found some robust relationships between workers’ shares in the labor force and educational expenditure, in real terms and per capita. To assess the implications of these findings, we simulate, in a conventional CGE model for Ethiopia, the impact of an increase in public expenditure devoted to education. Our simulation results highlight the existence of a multiplicative effect, such that the overall increase in the supply of education services, in the final equilibrium state, is more than three times larger than the initial demand push. This comes associated with a positive supply shock, entailing gains in productivity, income, and welfare, as well as changes in the structure of the economy.


National data on student disengagement show a pervasive trend that currently makes this phenomenon one of the biggest challenges faced by teachers worldwide. Much research on student disengagement examines the problem through an indirect framework in which deficiencies in positive social conditions or psychological states are tested as predictors of disengagement. This study uses a different lens by examining how negative student–teacher interactions differentially predict disengagement in adolescent students. Using self-determination theory, this study advances two hypotheses: H1, student perception of psychological need thwarting will have a stronger relationship with student disengagement than student perception of the lack of need support, and H2, the relationship between student perceived psychological need thwarting and student disengagement will be mediated by psychological need frustration. With data from 4694 students, ex post facto study findings confirmed the anticipated increased variance in disengagement when testing negative student–teacher interactions. Further, the hypothesized mediating effect of psychological need frustration was supported.

This study has three main objectives. The first is to know to which degree engagement, as a person variable, and each of its modalities—agency, behavior, cognition, and emotion—are affected by the interaction with several learning situations, listening to a lecture, carrying out practical tasks alone, reading a text while studying, working in groups, or participating in practical classes. The second is to test its relationships with potential moderator variables—motivation, self-efficacy, emotion self-regulation, and stress—and its potential effects on performance and satisfaction. Participants were 531 university students. They filled in a questionnaire that allowed testing alternative theoretical models on the person-situation hypothesis using confirmatory factor analyses. Results showed that if items refer both to engagement modalities and learning situations, the traditional hierarchical model that considers that engagement depends on a personal disposition with four components does not fit well. Instead, the multitrait model does. It shows that engagement, as a general disposition, is activated by the set of situations and that each of its components only plays a role in some of them. The hypotheses on the relationship between engagement and the rest of the variables received positive support. These results open new perspectives for studying and improving engagement.


Our aim with this study was to gain a better understanding of the emotional landscape of curriculum making by exploring the variety of emotions embedded in shared sense-making about the national curriculum reform implementation at the district level. Focus group interview data were collected from 12 curriculum reform steering groups around Finland, that were responsible for orchestrating curriculum reform work at the district level. The data were qualitatively content analysed. The results showed that the local steering group members experienced a wide range of emotions in shared sense-making. Positive emotions were described slightly more often than negative emotions. The emotional landscape of the sense-making strategies applied in curriculum reform work varied depending on the strategy applied.


Socioeconomic status has been a long-time discussed topic due to its impact on children’s school paths. However, despite extant research indicating strong relationships between students’ socioeconomic status, use of self-regulated learning strategies, and academic achievement, research on interventions addressing these topics is limited. This investigation aimed to examine the effectiveness of a school-based, narrative-based program to promote self-regulated learning strategies and academic performance among fourth-graders from low socioeconomic backgrounds. Twelve classes were randomly assigned to the intervention or control group. The students from low socioeconomic status backgrounds in each group were enrolled in the study. A quasi-
An experimental study with three measurement moments was conducted. Data were gathered from self-reported questionnaires and an on-task measure. Findings indicate that the program was efficacious in promoting the use of self-regulated learning strategies and academic performance in children from low socioeconomic backgrounds. This research paper discusses both practical implications and future research guidelines.


The growth mindset, or the belief that intelligence can be increased with effort, has been shown to be positively associated with improved learning outcomes. This association has been observed in a few studies that inquired into reading outcomes, and fewer studies that looked into reading in a second language. The current study used data from the Programme for International Student Assessment (PISA) 2018 database to investigate the relationship between growth mindset and reading proficiency of Filipino students learning English. Data were from 6,766 students who spoke a Philippine language at home, who were learning reading in English in high school, and who were assessed for reading proficiency using English texts. The study also inquired into the role of the students' socioeconomic status (SES) and controlled for some teacher-related and motivation-related variables. Results of hierarchical regression analysis showed a weak but significant positive relationship between growth mindset and reading proficiency. The relationship between SES and reading proficiency was stronger; more importantly, SES moderated the relationship between growth mindset and reading proficiency. The positive relationship between growth mindset and English reading proficiency became weaker as the students’ SES decreased; the relationship was nonsignificant among students with the lowest SES. The discussion refers to SES differences in reading English language-learning environments in the Philippines and considers how resources in the learning environment enable (or constrain) the role of growth mindset in improving learning outcomes.


Minoritized populations have historically been underrepresented within school psychology. Furthermore, school psychology is in the midst of what has been termed the shortages crisis. Previous research suggests that undergraduate psychology students have little knowledge or exposure to school psychology as compared with other branches of professional psychology. Research suggests that increased knowledge and exposure to school psychology is related to increased intentions to pursue school psychology. Scholars have advocated for the creation of undergraduate school psychology courses to increase exposure to school psychology. However, to our knowledge, this is the first study to investigate the effectiveness of such courses. This study took place at a highly diverse northeastern public university and included 210 undergraduate students who were enrolled in an undergraduate school psychology course. Participants were asked to complete measures examining their knowledge, exposure, self-efficacy, outcome expectations, and choice intentions for school psychology at the beginning and end of the course. Results indicate that students
enrolled in school psychology courses demonstrated significant increases in perceived knowledge, exposure, self-efficacy, and outcome expectations for school psychology. In addition, minoritized students demonstrated significantly greater increase in their knowledge and self-efficacy after course completion than nonminoritized students. Implications for minoritized and general recruitment are discussed.


It is well established that socioeconomic status, cognitive ability, and non-cognitive abilities such as self-efficacy are substantially associated with academic achievement. However, the specific relationships of these variables remain a relatively unexplored topic in regard to more recent and representative samples. The current study examined such relations by taking advantage of two cohorts (total N = 12,315) of Swedish students at the elementary (Grade 6) and lower-secondary school levels (Grade 8) in the compulsory school. The regression models showed that all three variables explained a substantial portion of grade variance, with cognitive ability having the strongest relationship, followed by non-cognitive abilities, and SES. Longitudinal associations, which accounted for previous academic achievement, showed that the three variables did still explain a substantial amount of grade variance.


When we think about the issues currently confronted by those who work in schools, stress and burnout among teachers and other practitioners is recognized as a widespread concern due to the adverse effects on students, schools, and communities. The purpose of this study was to investigate the effects of job stress on the experienced burnout of teachers, and to examine the variability in burnout attributable to a specific psychological resource, namely, an individual’s work-related sense of coherence (Work-SoC). A descriptive, cross-sectional analysis was conducted using data collected through an online survey from 231 primary and secondary school teachers in the United States. Results from correlational and regression analyses demonstrate that two forms of work stress—perceived quantity and perceived quality—are important predictors of burnout. Further, Work-SoC contributes to variability in teacher burnout even after accounting for perceived work and life stress, suggesting its important role in buffering teachers from the experience of burnout. Implications for practitioners for reducing teacher stress and burnout are discussed.


The purpose of this study was to understand the extent to which teachers experience costs to caring (e.g. secondary traumatic stress, burnout, and intent to leave the profession) and to test a Teacher Costs to Caring Resilience Model (TCCRM) using structural equation modeling. Participants consisted of 542 teachers in the Northeastern U.S. Findings suggested that the personal protective factors of resilience and compassion satisfaction showed a negative direct effect on costs to caring. Further, the professional protective factor of working in a positive school climate showed a negative indirect
effect specifically on burnout. Focusing on improving teacher resilience, compassion satisfaction, and school climate using a systems-based approach modeled on the TCCRM is suggested.


This study investigated students’ perceptions of their behavioural and emotional self-regulation after a six-to-eight week implementation of classroom physical activity breaks (CPAB). It also explored students’ perceptions of their affective states before and after CPAB, as well as their interest and engagement during CPAB. Eighty-two elementary students aged from 6 to 10 years filled in booklets each week during the study. Among them, 14 students with behavioural difficulties as experimental group and 14 students as control group completed the Self-Regulation Questionnaire at the beginning and the end of the experimental design. Repeated measure ANOVA revealed an interaction effect (condition X group) on emotional self-regulation among students with behavioural difficulties compared to their peers after CPAB. A descriptive analysis of the booklets revealed the positive reactions of students to CPAB, especially those with behavioural difficulties. These findings thus support the value of CPAB for students with behavioural difficulties, and open new perspectives of research.


School motivation is key to promoting optimal educational pathways. Some studies suggest that parental monitoring behaviors foster school motivation among adolescents; however, they did not examine the potential role of adolescents’ motivation in shaping parental monitoring behaviors. This longitudinal study aimed to examine the bidirectional associations between three types of school motivation (autonomous, controlled, and amotivation) and two types of perceived parental monitoring behaviors (solicitation and control). The sample consisted of 328 adolescents (212 girls, 116 boys; M = 15.78 years), assessed at the end of their third or fourth year of secondary school, and again, 1 year later. Path analyses revealed that over a 1-year period, bidirectional associations were found between autonomous motivation and perceived parental solicitation. Moreover, parental solicitation as perceived by the adolescents was associated with a decrease in amotivation during the following year. Findings provide support for the dynamic nature of the parent–child relationships and highlight the need to consider child-to-parent effects to promote positive school-related outcomes.


This research explores the effects of listening to music during exams for engineering college students. Students were given the option to listen to self-selected music while completing exams in three undergraduate engineering courses over four years. It was found that listening to music during an exam had no significant effect on the mean exam scores or completion times. However, when analyzing data from students who had taken
Exams both with and without music, it was found that these students performed significantly better in the music condition but at par with the mean score. Results indicate that allowing music during exams for students who study with music does not represent an advantage but rather an opportunity for equity in exam-taking environments.


Vygotsky’s sociocultural theory (VST) has been increasingly utilised as an effective framework to account for the role of emotions in learning and development. Yet, within VST, emotion has neither been systemically theorised nor investigated. This paper contributes to the literature by offering a theoretical discussion of Vygotsky’s perspective on emotion and its relation to cognition. Employing a content analysis approach, three of Vygotsky’s key texts on emotions were closely read and analysed with emerging themes grouped into a system of interrelated theoretical tenets. The insights gained from this paper benefit scholars who are interested in understanding and researching emotions from a VST perspective as well as provide important implications for educational practices.


Vocational psychology has devoted limited attention to factors that promote or hinder the career development of musicians. We combined features of social cognitive career theory’s (SCCT) well-being and choice models to examine the experiences of musicians at a formative point in their career development – the first few years of college, during which many would-be musicians either reaffirm or abandon their career paths. Consistent with SCCT, we posited that academic satisfaction and stress would be predicted by favorable levels of self-efficacy, outcome expectations, social support, goal progress, and trait negative affect. We also expected that satisfaction and stress levels would, along with self-efficacy and outcome expectations, predict intentions to persist in undergraduate music majors. Participants were 260 first- and second-year undergraduate music majors. The hypothesized model and a slightly revised version (which added a direct path from goal progress to persistence intentions) produced good fit to the data and accounted well for variation in academic satisfaction, stress, and persistence intentions.


Text analytics in education has evolved to form a critical component of the future SMART campus architecture. Sentiment analysis and qualitative feedback from students is now a crucial application domain of text analytics relevant to institutions. The implementation of sentiment analysis helps understand learners’ appreciation of lessons, which they prefer to express in long texts with little or no restriction. Such expressions depict the learner’s emotions and mood during class engagements. This research deployed four classifiers, including Naïve Bayes (NB), Support Vector Machine (SVM), J48 Decision Tree (DT), and Random Forest (RF), on a qualitative feedback text after a semester-based course session at the University of Education, Winneba. After enough training and testing
using the k-fold cross-validation technique, the SVM classification algorithm performed with a superior accuracy of 63.79%.


Background Children’s participation in physical education (PE) is seen as important for developing an active lifestyle and has been positively linked to academic achievement. Physical activity (PA) levels during PE are thought to be linked to PE-motivation, although this relation is poorly understood. Aims This study examined (1) whether children’s PA-levels during PE were predictive of their PE-motivation and (2) whether the relation between PA-levels and motivation was moderated by children’s academic achievement. Where previous studies focused on moderate-to-vigorous physical activity (MVPA), disregarding the potential beneficial role of lower intensities of PA, we included MVPA, light-intensity physical activity (LPA) and sedentary behaviour (SED). Sample In total, 891 primary school students participated (mean age = 9.2 years). Methods During one regular PE-lesson, PA-levels (using accelerometers) and PE-motivation (Intrinsic Motivation Inventory) were measured. Academic achievement in reading, mathematics and spelling was measured with standardized tests. Results A structural equation model revealed that LPA, MVPA and academic achievement positively predicted PE-motivation. The interaction between academic achievement and PA-levels was not related to PE-motivation. SED was excluded from the models due to multicollinearity. Conclusion Children who are more engaged in LPA and MVPA and who perform better academically generally seem to be more motivated for PE, suggesting that PA-intensity levels and PE-motivation are bidirectionally linked. Results underline the importance of also examining LPA.


Since the beginning of the COVID-19 pandemic, students have endured drastic changes in educational routines. Such disruptions can be especially challenging for students who struggle with executive functioning, self-regulation and emotion regulation, such as students with autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD) and bipolar disorder. Using a framework of trauma-informed instruction, the authors supported classroom teachers in implementing sensory spaces for students with ASD, ADHD and bipolar disorder. The project included professional development and funding for teachers to develop, procure and offer sensory tools and strategies to assist students in recognising and managing emotions. The authors collected data on the effectiveness of the sensory supports, combining teacher surveys and student behaviour data. Results indicated increased teacher knowledge on trauma-informed instruction and use of sensory supports to promote executive functioning and self-regulation and decreased target behaviours in students based on structured observation and anecdotal teacher feedback.

Background Education outside the classroom (EOtC) is considered beneficial to children’s physical and mental health. Especially, stress resilience has been linked to nature experience. Aims This study experimentally explored the effects of pupils’ autonomy support (AUT) and physical activity (PA) on their biological stress responses and brain development in EOtC. Sample The study comprised 48 fifth and sixth graders. Methods The intervention consisted of one day/week taught in a forest over one school year. Structural magnetic resonance imaging (MRI) was conducted at the beginning and the end of the school year, functional MRI under a stress condition at the end. Regions of interest were amygdala, hippocampus and the anterior cingulate cortex (ACC). All other measures were obtained at the beginning, at mid-term and at the end of the school year. PA was measured using accelerometry. Cortisol levels were obtained three times during the examined school days. AUT was measured with a paper-based survey. Data were analysed using Bayesian multivariate models. Results EOtC students exhibit more efficient regulation of biological stress-reactivity and show a reduction of cortisol over the day associated with light PA in the forest. Cortisol is further associated with amygdala activation in the stress condition. Cerebral structural change is best explained by age; however, AUT has a positive direct effect on the maturation of the ACC, which is stronger in EOtC. Conclusions Our results support the idea that autonomy supportive teaching fosters cerebral maturation and that EOtC can have a positive effect on biological stress regulation.


The aim of the study is to investigate the measurement invariance of mathematics self-concept and self-efficacy across 40 countries that participated in the Programme for International Student Assessment (PISA) 2003 and 2012 cycles. The sample of the study consists of 271,760 students in PISA 2003 and 333,804 students in PISA 2012. Firstly, the traditional measurement invariance testing was applied in the multiple-group confirmatory factor analysis (MGCFA). Then, the alignment analyses were performed, allowing non-invariance to a minimum to estimate all of the parameters. Results from MGCFA indicate that mathematics self-concept and self-efficacy hold metric invariance across the 80 groups (cycle by country). The alignment method results suggest that a large proportion of non-invariance exists in both mathematics self-concept and self-efficacy factors, and the factor means cannot be compared across all participating countries. Results of the Monte Carlo simulation show that the alignment results are trustworthy. Implications and limitations are discussed, and some recommendations for future research are proposed.


The aim of this study was to examine the relationship between health life awareness, emotional eating, obesity awareness, and coping with stress in adolescents. Data were collected with the “Personal Information Form,” “Healthy Life Awareness Scale,” “Obesity Awareness Scale,” “Emotional Eating Scale for Children and Adolescents,” and “Styles of
Coping Stress Inventory." The sample of the study consisted of 382 high school students. The emotional eating scores of the obese adolescents were higher than the thin ones (p < .05); obese adolescents had higher submissive approach scores (p < .05) in coping with stress compared to adolescents who are overweight. There was a positive relationship between obesity awareness and positive coping approaches (p < .05); awareness of healthy living and positive coping approaches (p < .05). An one-unit increase in healthy living awareness causes an increase of 0.409 on obesity awareness. Considering these results, education and intervention studies are recommended for adolescents on healthy living, coping with stress, and obesity awareness.


Social validity refers to the extent to which applied behavior analytic (ABA) treatment goals, methods, and/or outcomes are acceptable and meaningful to stakeholders. The aim of this conceptual paper is to suggest how social validity may be promoted during behavioral consultation in school systems and how the assessment of various aspects of social validity contributes to this throughout the consultation process. Literature pertaining to the concept of social validity, rapport-building, collaboration with stakeholders in behavioral school consultation, and the assessment of social validity are reviewed and synthesized. Social validity may be promoted in several domains: communication with consultees, collaborative selection of treatment methods and student objectives, consultee training, and measurement of outcomes meaningful to stakeholders. Social validity assessment can occur in all of these domains and is ideally a continuous process that informs all phases of consultation. There is a particular need for direct measurement of the social significance of behavioral consultation services. Social validity is integral to all aspects of the behavioral school consultation process, and it may be facilitated by incorporating valid social validity assessments into every stage of the consultation process.


This mixed methods study surveyed 209 K-12 special education teachers about their perceptions of preparedness to teach students with mental health needs that manifest internally (e.g., quiet distress, withdrawal, excessive worry). We used a construct-modeling approach to develop the survey instrument and establish evidence of validity, reliability, and fairness, and it included both multiple-choice questions, used for descriptive and regression analyses, and open-ended items, coded to identify key themes. Results indicated that special educators generally had low perceptions of preparedness to support students with internalizing needs. In addition, we found that participants possessed critical misconceptions about research-based practices for supporting students with these needs in the school context, and that differences in perceptions of preparedness were associated with teachers’ race and the grade level at which they taught.

Cyberbullying is a significant public health concern that has been associated with negative outcomes. The pandemic has increased the reliance on technology in the classroom; thus, research exploring cyberbullying in the classroom is even more important. Furthermore, it is important to understand teachers’ perceptions of cyberbullying to inform efforts to support teachers in addressing cyberbullying. With a nationally representative sample of 174 teachers in the United States, a series of questionnaires were administered to investigate teachers' perceptions of cyberbullying, their preparedness to address cyberbullying, perceptions of effective strategies to address cyberbullying and whether social-emotional learning programs used in their schools incorporate digital citizenship skills. Results indicated little change in the rates of cyberbullying in schools, but that teachers reported a need for training and professional development to best support them on this topic. Implications related to teacher educator preparation programs and school based interventions targeting cyberbullying are discussed.


Gender segregation in fields of study represents an important explanation for gender inequalities in the labor market, such as the gender wage gap. Research shows that horizontal gender segregation in higher education persists for a variety of reasons, including women’s greater communal goals and men’s greater motivation to earn high incomes. Yet with the male breadwinner model in decline, a key question is whether women’s motivation to earn high incomes might contribute to increasing women’s participation in female-atypical fields of study. Using data from the German Student Survey over a period of 30 years, our findings show that the proportion of women enrolled in female-atypical fields of study increased from 1984 to 2015. Moreover, women’s motivation to earn high incomes mediates the effect of time on enrollment in female-atypical fields of study. Their motivation to earn high incomes might thus be a factor contributing to the disruption of gender segregation in fields of study over time. Furthermore, contrary to expectations, the motivation to earn high incomes as a driving force for women to opt for gender-atypical fields of study is not stratified by social background.


Reading is one of the crucial aspects of the learning process. The learning efficiency depends on the motivation and involvement of students. The paper aims to determine whether the developed online course enhances student motivation and engagement in contemporary American literature. For this purpose, questionnaires were used. The sample consisted of 126 students enrolled in Yulin Gaoxin Secondary School, who had English proficiency at a high enough level to read English literature in the original language. Before and after the course, the Reading Motivation Questionnaires test was
administered, with its scores validated using Student’s t-test for dependent samples. Significant progress is observed in the internal and social components of motivation (23–25%), as well as in the Engagement category (31%). The course also positively affected learning effectiveness. None of the participants scored less than half of the possible points for the course assignments. Most children obtained high (95–119 points) and very high scores (120–140 points). This finding demonstrates the suitability of the tools used (videoconferencing, learning management systems, discussion forums, and interactive exercises) in online learning when studying modern literature. The research findings are of interest, first of all, to instructors who adopt technological innovations in their lessons or want to motivate students to read. Second, school administrators and education sector officials can draw information from the findings for corrective action. Third, software developers may be inspired by the data and create new technology solutions.


This study involved a systematic and evaluative review of school climate measures to catalog main domains and subdomains and rate parameters of instrument presentation and psychometric quality. Four databases were used (Web of Science, Scopus, ERIC, and PsycINFO) and 37 instruments (studies) met inclusion criteria (instrument measured school climate; psychometric properties of the instrument were provided; every instrument included in the review has its original version published; the article was in English or Spanish; the article was a peer-reviewed publication). Information was synthesized according to instrument presentation and psychometric quality. The expansion of literature search routes was designed to mitigate publication bias. Analysis revealed four main domains among extant school climate measures: relationships (social relationships, school connectedness, leadership, and culture), environment (school facilities, physical comfort, and cleanliness), safety/discipline (school safety, fairness of rules, bullying and aggression, disciplinary harshness, and general drug use), and academic (academic outcomes, equality of opportunity, engagement, and cohesiveness/competitiveness). This domain/subdomain architecture could serve as a touchstone for conceptualizing school climate and developing and refining future assessment devices for this construct. The domain/subdomain architecture could also help guide school reform efforts. Limitations included possible publication bias and an exclusive focus on questionnaires and not other methods to assess school climate.


Background This study examined the relations between students' expectancies for success and a physiological component of test anxiety, salivary cortisol, during an authentic testing setting. Aims The aim of the study was to better understand the connection between shifts in students’ control appraisals and changes in the physiological component of test anxiety. Sample The study comprised 45 undergraduate engineering majors in the United States. Methods Survey data concerning students' expectancy for success and saliva samples were taken before, during and after the practice midterm examination prior to their actual in-class examination. Results Students’ expectancy for success declined during the examination while cortisol levels declined
from the beginning to middle of the examination and began to increase again as a function of time. Although students' initial levels of expectancy for success and cortisol were not correlated, there was a negative relation between change in cortisol and change in expectancy for success. Conclusions Our study demonstrates a relation between salivary cortisol, a physiological component of test anxiety and students’ expectancy for success in an authentic testing context. Most students saw a decrease in cortisol during the examination, suggesting anticipatory anxiety prior to the test and a return to homeostasis as the examination progressed. Some students, however, did not see a declination in cortisol, suggesting they may not have recovered from pre-examination anxiety. The negative relation between change in cortisol and expectancy for success suggests that students who had the greatest decrease in expectancy for success saw the smallest recovery in cortisol.


The international school sector in Hong Kong makes a substantial contribution to educational provision in the city, employing many expatriate teachers. Wellbeing has taken on increasing prominence in international school discourses, but little research has investigated how the wellbeing of international school teachers is influenced by school-level factors. For the purposes of this study, thirteen expatriate teachers from ten different international schools in Hong Kong were interviewed and the data were analysed thematically. The teachers' wellbeing was found to be influenced by relationships with students, colleagues and senior leaders, and a pervasive climate of accountability. Teachers felt a sense of social isolation associated with cultural differences, and often did not feel supported by their schools. Teachers' wellbeing, it is proposed, may be improved by the articulation of a shared vision which focuses on classroom-level interactions, an affiliative climate, and an institutional environment which addresses social isolation and protects teachers against an excessive climate of performativity and accountability.


Aim We investigated the dose–response relationship between acute physical activity (PA) intensity during physical education (PE) lessons (dose), and task behaviour and learning experiences in the classroom after PE (response), and mediation effects of acute PA on-task behaviour via learning experiences. Method A total of 78 children (Mage = 9.30 years; 43 females) took part. Participants reported learning experiences (tiredness, positive and negative affect) during one afternoon per week for 6 weeks. Their task behaviour was observed (on-task, active off-task and passive off-task) during two classroom lessons. Between the classroom lessons, they took part in a PE lesson, with experimentally induced PA intensity (low, medium and high). Accelerometers were worn for 24 h leading up to and during every intervention afternoon. Participants completed self-reports three times per classroom lesson, both before and after PE. Intra- and interindividual differences in PA, task behaviour and learning experiences were analysed with multilevel structural equation models. Results Moderate PA directly increased on-
task behaviour and reduced passive off-task behaviour, whereas light PA increased active off-task behaviour and reduced on-task behaviour. We found no direct effects of vigorous PA or mediated effects of any PA intensity on-task-related behaviour. However, a greater positive affect during PE indirectly led to more on-task and less passive off-task behaviour. Regularly active children reported less tiredness in the classroom. Conclusion PE lessons can increase on-task behaviour and reduce both passive and active off-task behaviours. Positive affect and tiredness are indirectly involved in the impact of PA on task-related behaviour. The greatest benefits were found for moderate PA and for PE lessons, which left children feeling positive. Moreover, regular participation in moderate-to-vigorous PA leads children to feel less tired during school lessons.


Small group social skills training (SST) is recommended to improve the social behavior and peer relations of rejected children, but child responses vary. This study explored variation in intervention experiences that emerged in a large study of a school-based SST program for peer-rejected children and associations with program outcomes. One hundred and seven peer-rejected elementary students (60% White, 15% Black, 22% Latinx, 3% Multi-racial, and 65% male) were identified by classroom sociometrics and randomly assigned to a year-long small group SST program. Normative classmates served as partners. Among the peer-rejected targets of the intervention, those with relatively better pretreatment social skills received more SST sessions and were more positively engaged, whereas those with fewer social skills and more behavior problems experienced more negative peer responses during SST sessions and less collateral support from teachers and parents. Hierarchical regressions (controlling for pretreatment scores) revealed attenuated intervention benefits for children who received more negative peer responses during SST and less parent and teacher support. The findings suggest that, within a sample of peer-rejected children, those with more severe skill deficits and elevated behavior problems at pretreatment have lower-quality SST experiences that reduce intervention benefits, even when normative classmates serve as peer partners. These issues warrant careful attention in future SST intervention design and research.


Background This study examines the relationship between adolescents' biophysiological stress (i.e. cortisol, alpha-amylase and oxidative stress) and the development of grit and school engagement over one school year. Aims The study aims to identify how objective stress affects grit and three dimensions of school engagement. Based on the conservation of resources (COR) theory, the study considers lower- and higher-track school students and their genders. Sample The sample consists of secondary school students (N = 82; MAge = 13.71; SD = 0.67; 48% girls) from Germany. Methods Students participated in a questionnaire and a biophysiological study in the first semester (t1) of the school year and completed the same questionnaire at the end of the school year (t2). After conducting whole-sample analysis, a multi-group cross-lagged panel model was calculated to identify differences among students at lower- and higher-track schools. Results Whole-sample analysis reveals that students who exhibit high levels of
cortisol report lower cognitive school engagement at t2, whereas students who exhibit high levels of alpha-amylase exhibit less grit at t2. Additionally, lower-track students who exhibited high cortisol levels reported lower cognitive and emotional school engagement throughout the school year. Furthermore, higher-track students with high oxidative stress levels reported lower grit and behavioral school engagement at t2.

Conclusions Examining the relationship between biophysiological stress markers and grit and school engagement of students at lower- and higher-track schools indicates that the educational context and its specific subculture shapes physiological stress reactions, which are related differently to grit and engagement dimensions.


Autism spectrum disorder (ASD) is a pervasive developmental disorder that has grown in prevalence over the past few decades and has a tremendous impact on families that struggle with adjustment to this disorder. Initial exposure to such a disorder may be a significant source of stress and tribulation for Chinese families who are not familiar with mental health discourse and how to navigate community healthcare systems. More extensive research with this population is vital to understand how cultural values and perceptions of parenting self-efficacy contribute to parenting stress and coping in Asian families. This qualitative study sought to gain understanding of the ways that Asian families coped with stress when they had a child diagnosed with ASD. Seven Chinese families living in New York, with children between the ages of two and five, who were diagnosed with ASD, participated in semi-structured interviews. Thematic analyses generated primary themes that explored factors contributing to Chinese parental stress: Chinese parents’ perceived parenting self-efficacy, parents’ adherence to traditional Asian values, parental patterns of coping, and overall satisfaction with the early intervention services which their children were receiving. Results can guide specialized assessment and intervention for professionals who work with Chinese families within clinical, school, and community settings. Implications for practices of psychology in schools, limitations of this current study, and future directions are also discussed.


COVID-19 has caused the overnight migration of learning and teaching to online platforms and has significantly impacted students’ learning opportunities and experiences worldwide. The results of emergency online learning have heavily relied on students’ abilities to exercise agency in maintaining active motivation and engagement with online learning. Despite the wide application of motivation theories to diverse contexts, how to adapt motivation theories to develop online learning effectively and sustainably in complex and situational online learning environments is still under-investigated. Using a large sample of 14,935 postgraduate students from 31 universities in China, this study examined the effects of student motivation and engagement on students' academic achievement in the COVID-induced online learning anchored by the theoretical perspective of self-determination theory. This study made contribution to the self-determination theory by extending it to the complex emergency situation and supported its main argument that online emergency learning environments satisfying students’ psychological needs of autonomy and competence promote optimal
motivation, positive engagement and academic achievement. This study also contributed to reveal the ‘sophisticated’ nature of relatedness satisfaction in the case wherein its specific effects depend on the cultural configuration of the contexts and on the specific types of engagement. Given the fact that COVID-19 continues to be a public challenge throughout the world, implications for improving the quality of online teaching in the future were also discussed.


A long-established literature has found that anxiety about testing is negatively related to academic achievement. Yet there remains some debate as to whether this is simply due to less academically able pupils being more likely to develop education-related anxiety issues. This paper presents new evidence on this matter, focusing upon how test anxiety – as measured by five questions included in the PISA 2015 survey – is related to the grades 15/16-year-olds achieve in England’s high-stakes GCSE examinations. I find little evidence that teenagers with low or high levels of test anxiety achieve lower GCSE grades than pupils with average levels of test anxiety. Thus, in contrast to much of the existing literature, no clear relationship between test anxiety and examination performance is found.


In recent years, stress and anxiety have been identified as two of the leading causes of academic underachievement and dropout. However, there is little work on the detection of stress and anxiety in academic settings and/or its impact on the performance of undergraduate students. Moreover, there is a gap in the literature in terms of identifying any computing, information technologies, or technological platforms that help educational institutions to identify students with mental health problems. This paper aims to systematically review the literature to identify the advances, limitations, challenges, and possible lines of research for detecting academic stress and anxiety in the classroom. Forty-four recent articles on the topic of detecting stress and anxiety in academic settings were analyzed. The results show that the main tools used for detecting anxiety and stress are psychological instruments such as self-questionnaires. The second most used method is acquiring and analyzing biological signals and biomarkers using commercial measurement instruments. Data analysis is mainly performed using descriptive statistical tools and pattern recognition techniques. Specifically, physiological signals are combined with classification algorithms. The results of this method for detecting anxiety and academic stress in students are encouraging. Using physiological signals reduces some of the limitations of psychological instruments, such as response time and self-report bias. Finally, the main challenge in the detection of academic anxiety and stress is to bring detection systems into the classroom. Doing so, requires the use of non-invasive sensors and wearable systems to reduce the intrinsic stress caused by instrumentation.

Background Teachers' self-reported stress is related to the quality of teacher–student interactions and students' learning outcomes. However, it is unclear if teachers' physiological stress is related to child-centred teaching practices in the classroom and whether teaching practices mediate the link between teachers' stress and students' learning outcomes. Aims We studied the effect of teachers' physiological stress and self-reported stress on their teaching practices and thereby on students' learning outcomes in math. Sample A total of 53 classroom teachers and 866 Grade 1 students participated in the study. Methods Salivary cortisol in the middle of the school day and cortisol slope from morning peak to evening were used as indicators of teachers' physiological stress, in addition to self-reported teaching-related stress. Teaching practices were observed with the ECCOM instrument. Students' math skills controlled for gender and previous skills were used as a measure of learning outcomes. Data were analysed with a two-level SEM. Results Teachers' physiological stress did not have an effect on teaching practices or students' math skills. Teachers reporting less stress used relatively more child-centred teaching practices compared with teacher-directed ones. These practices had a marginal effect on classroom-level differences in the gain of students' math skills in Grade 1. There was neither a direct nor indirect effect from teachers' stress on students' math skills. Altogether, our model explained 77% of classroom-level variance in math skills. Conclusions Teachers' self-reported stress has an effect on their teaching practices, which, in turn, have a marginal effect on students' learning outcomes.


Motivation is a key component of teachers' professional competences in promoting students' self-regulated learning (SRL). This study combines expectancy-value theory and SRL to explore the associations and interactions of teachers’ expectancies, values and costs in promoting SRL and metacognition. Two hundred and eighty teachers participated in this cross-sectional study. Latent structural regression and interaction analyses indicate that expectancies and values are positively related to teachers’ promotion of SRL and metacognition. Mixed results were found for teachers’ costs and the interaction effects. This study highlights the importance of considering teachers’ expectancies, values and costs in promoting SRL and metacognition in research.


Background This study explored the physiological correlates of students' self-reported emotions in ecologically valid settings by combining biosignal data (on physical and cardiac activity) and experience sampling method (ESM) data. Aims The aim was to examine the concurrent associations between self-reported excitement, calmness, anxiety, and boredom (adopted from the dimensional model of emotions) and students' heart rate (HR) and heart rate variability (HRV) (indicators of physiological arousal and the activation of the autonomous nervous system). Students’ physical activity was controlled in the models via the metabolic equivalent of task (MET) values (actigraphy data). A second objective was to explore how to combine the information stored by
these three sources of ambulatory assessment. Sample The study comprised 136 high school students with multiple repetitive data points. Methods For three consecutive days, students wore biometric sensors and wristbands collecting their HR, HRV, and MET signals, and answered the ESM questionnaires five times a day on smartphones. Results When MET values were controlled for, self-reported excitement was related to higher HR as well as lower HRV during a specific moment, indicating stronger sympathetic activity (i.e., physiological arousal/activation). Self-reported boredom was related to lower HR but was unrelated to HRV. Self-reported calmness and anxiety were unrelated to HR and HRV after controlling for MET. Conclusions A 5-min time window with a Gaussian weighted mean seemed to be an appropriate data processing method for capturing the physiological arousal (or abate) of self-reported excitement and boredom. The findings suggest that the physiological stimulus of elevated HR could be interpreted by students as an adaptive state of excitement. Combining the experience sampling approach and the physiological measures revealed how the mind and body function in interplay and can therefore provide objective evidence of emotional and motivational processes as they unfold in students' daily lives.


Studies have shown that test-takers tend to use keyword-matching strategies when taking listening tests. Keyword-matching involves matching content words in the written modality (test items) against those heard in the audio text. However, no research has investigated the effect of such keywords in listening tests, or the impact of gazing upon these keywords on listening test scores. Thus, this study examined whether test-takers’ performance on a listening test can be explained by their gaze behaviors across three types of content words in the written modality: nouns, verbs, and adjectives. Using eye-tracking technology, this study measured the gaze behavior of 66 listening test-takers during reading content words in test item stems. Using linear mixed effect model, binary probit regression, and multinomial logistic regression, we found that test-takers’ performance was predicted by gaze behavioral measures on content words. Among the content words, fixating on nouns in written test items had the most significant role in predicting test performance, followed by adjectives and verbs. By shedding light on how keywords in test items are attended to by test-takers and the relationship between keyword-matching and listening test performance, this study has provided significant evidence for the overwhelming role of reading in listening tests. Implications for test score interpretation are discussed.


This longitudinal study retrospectively explored the stigmatization experienced by 47 young adults in South Korea in early mid-20s who dropped out of middle or high school. Data were collected at two time points. Using thematic analysis, we categorized their experience of stigma into public and self-stigma, based on Corrigan and Kosyluk’s (2014) social cognitive model of stigma. Each form of stigma is further subdivided into stereotypes, prejudices, and discrimination. We identified additional factors related to coping with the stigma. Based on the findings, the potential implications of characterizing
the stigma experienced by middle and high school dropouts are discussed from a longitudinal perspective.


Stereotype threat (ST) is a potential explanation for inequalities in language competencies observed between students from different language backgrounds. Language competencies are an important prerequisite for educational success, wherefore the significance for investigation arises. While ST effects on achievement are empirically well documented, little is known about whether ST also impairs learning. Thus, we investigated vocabulary learning in language minority elementary school students, also searching for potential moderators. In a pre-post design, 240 fourth-grade students in Germany who were on average 10 years old (M_{Age} = 9.92, SD = 0.64; 49.8% female) were randomly assigned to one of four experimental conditions: implicit ST, explicit ST without threat removal before posttest, explicit ST with threat removal before posttest, and a control group. Results showed that learning difficult vocabulary from reading two narrative texts was unaffected by ST. Neither students' identification with their culture of residence and culture of origin nor stereotyped domain of reading were moderators. The findings are discussed with regard to content and methodological aspects such that a motivation effect might have undermined a possible ST effect. Implications for future research include examining the question at what age children become susceptible to ST and whether students have internalized negative stereotypes about their own group, which could increase the likelihood of ST effects occurring.


Nowadays, facial expression recognition (FER) has drawn considerable attention from the research community in various application domains due to the recent advancement of deep learning. In the education field, facial expression recognition has the potential to evaluate students' engagement in a classroom environment, especially for deaf and hard-of-hearing students. Several works have been conducted on detecting students' engagement from facial expressions using traditional machine learning or convolutional neural network (CNN) with only a few layers. However, measuring deaf and hard-of-hearing students' engagement is yet an unexplored area for experimental research. Therefore, we propose in this study a novel approach for detecting the engagement level (‘highly engaged’, ‘nominally engaged’, and ‘not engaged’) from the facial emotions of deaf and hard-of-hearing students using a deep CNN (DCNN) model and transfer learning (TL) technique. A pre-trained VGG-16 model is employed and fine-tuned on the Japanese female facial expression (JAFFE) dataset and the Karolinska directed emotional faces (KDEF) dataset. Then, the performance of the proposed model is compared to seven different pre-trained DCNN models (VGG-19, Inception v3, DenseNet-121, DenseNet-169, MobileNet, ResNet-50, and Xception). On the 10-fold cross-validation case, the best-achieved test accuracies with VGG-16 are 98% and 99% on JAFFE and KDEF datasets, respectively. According to the obtained results, the proposed approach outperformed other state-of-the-art methods.
To illustrate primary students' use of argumentation, this study reported on an analysis of elements in argumentation of 168 grade 5 students in Taiwan. This study adopted the van Hiele (vH) model as the main theoretical framework with relevant studies to show the development of argumentation. This study designed a geometric argumentation test (GAT) with four elements to evaluate students' justification in argumentation, including premise, conclusion, mathematical knowledge (MK) and reasoning. The GAT has three tasks and each task has four items to show students' use of argumentation. This study adopted the cluster analysis through four elements. The results showed that students performed better in the elements of premises and conclusions than in the elements of MK and reasoning, and these grade 5 students were grouped into three clusters. The names of three clusters from the basic to advanced levels were Naïve Argumentation, Initial Argumentation and Incomplete Empirical Argumentation. The significant finding was that students in this study had a similar trend with the results in TIMSS in 2011, 2015 and 2019. Students in the cluster of IEA were at Level 1, and students in the other two clusters were at Level 0 in the vH model. Students in each cluster had specific characteristics and the problems in each cluster were related to different factors. Finally, this study pointed out the limitations and addressed some suggestions for further researches.

The purpose of this research was to investigate the impact of students' prior attitude on the processing of conflicting information regarding a controversial issue (is eating organic better for health and the environment?). In study 1, 314 seventh graders watched a set of videos that provided conflicting arguments on the issue. Students were then asked to recall and evaluate the strength of each argument of the videos. Students' attitude on the issue was measured 1 week prior to the viewing, immediately after and 1 week later to account for a possible evolution. Results indicate that although students evaluated the arguments of the videos that were consistent with their attitude as more convincing that the arguments that were inconsistent, they better recalled the arguments that were inconsistent and reported a moderation of their attitude following the viewing of the videos. The study was replicated with a sample of undergraduate students (study 2) to investigate a possible age effect. Results proved partly different from the one observed on seventh graders, as undergraduate students did not recall better the arguments that were inconsistent with their attitude and did not report an evolution of their attitude following the viewing of the videos. These results suggest an age difference in the processing of the conflicting arguments provided.

Previous studies have separately explored the impact of parents' academic support and expectation on students' academic achievement. However, few studies have explored the common impact of these two factors simultaneously and from the perspective of
development. The purpose of this study was to explore the dynamic long-term impact of parental academic support on students' happiness and academic achievement, as well as the moderating effect of parental academic expectations. A total of 539 students from a high school in eastern China participated in a five-wave three-year survey with measurements with the interval of half a year. The results showed that the slope of parental academic support across the five measurements predicted the slope of students' academic performance through the slope of student happiness. In addition, the slope of parental academic expectations moderated the effect of the slope of parental academic support on the slope of student happiness. Specifically, this positive effect was significant only when the slope of academic expectation is positive. Theoretical contributions and practical implications are also discussed.


For psychoeducational evaluations to generate useful data, students must put forth sufficient effort on diagnostic tests, and they and their caregivers and teachers must respond honestly and carefully when asked about symptoms. These features are collectively known as response validity, a concept widely discussed in neuropsychological assessment but rarely discussed explicitly in the school psychology literature. School psychologists (N = 311, 82.6% female) were surveyed about their attitudes and practices regarding response validity. Most respondents used informal observational strategies to assess response validity when conducting psychoeducational evaluations, but very few respondents administered any specialized formal standalone measures to assess response validity. The vast majority of respondents were nonetheless interested in the topic and felt that it was insufficiently addressed in the training of school psychologists. Trainers should cover response validity issues in greater detail, and practitioners should consider using more formal strategies to assess response validity.


The Cultural Adjustment Group is a pilot school-based group intervention for recently arrived immigrant middle school students. This study examined the feasibility, acceptability, and provided preliminary assessment data to guide future intervention research. Seventy (Male, n = 43; Female, n = 27) immigrant students who were Spanish-speaking, Arabic-speaking, and Bangla-speaking (ages 10–16, M = 13.17) from an urban school district in the Northeastern United States participated in this intervention. Pre and postgroup surveys and exit-group interviews were conducted to evaluate the program. The findings demonstrated this intervention has good feasibility and high acceptability by the participants. The Bangla-speaking group reported higher levels of clinical symptoms and perceived discrimination at pretest and reported a clinically significant reduction in clinical symptoms and acculturative stress at posttest. There were no clinically significant changes in the other two groups. The results offer guidance for future implementation of school-based intervention for newcomer students.

Background and Aims Integrative models applied to human learning and performance emphasize the joint operation of biological, psychological, social, and educational processes to fully understand human functioning. Educational psychology researchers have typically emphasized psycho-educational and psycho-social factors in motivation, engagement and learning, but do not often consider the biophysiological factors. Results This Editorial and Special Issue advances current understanding on the role of biophysiological factors and processes in students’ and teachers’ motivation, engagement, and learning experiences, by showcasing recent educational research that included biophysiological measures and methods. Conclusions As we discuss, conducting integrative biophysiological and psycho-educational research has potential to derive vital substantive, methodological, and applied insights that provide a rigorous basis for more effective educational theory, research, and practice.


Dans les années 1950, des psychologues mènent de nombreuses enquêtes sur les apprentis scolarisés dans les centres d’apprentissage. Issus de plusieurs laboratoires, ils mobilisent différentes méthodes (psychotechniques, statistiques, cliniques) pour étudier une population scolarisée particulière, entre l’école et l’atelier. Dressant un portrait psychosociologique de cette jeunesse, les psychologues s’interrogent sur cette forme d’adolescence en milieu populaire.


Background Self-regulation promotes engagement within the classroom. At a physiological level, a good indicator of the ability of the system to self-regulate is cardiac vagal tone (CVT). Aims The present study aims to assess children’s change over time (1 year) in their parasympathetic regulation (by way of CVT) in response to a social and cognitive stressor. Moreover, it addresses whether, if present, this change over time in regulation influences students’ engagement in classroom activities while also accounting for classroom climate. Sample Forty-nine second graders were assessed at two time points: November 2018 (T1) and 1 year later in 2019 (T2). Methods Children’s CVT was registered at rest and while performing a stressful task during which they were asked to cognitively perform while being socially evaluated. Children were also interviewed on how much they feel engaged in classroom activities and their perceptions of classroom climate. Results A repeated measures analysis of variance including 2 Time Points × 2 Phases of CVT Registration (baseline and during the stressful task) revealed a significant decrease in cardiac vagal activity from baseline to the task at T1, indicating that initially most children were not able to self-regulate and gave way to a stress response when facing the stressful task. The pattern changed at T2 when an active regulation took place signalled by an increase in CVT from baseline to the stressful task. Data analysis also revealed that among children who perceived a poorer classroom climate, the display of greater parasympathetic regulation over time was linked with higher active engagement in classroom activities. Conclusions Growth in physiological regulation in response to a challenging task is associated with better engagement in classroom activities. Interventions and educational practice promoting the development of self-regulation strategies are recommended.
The impostor phenomenon (IP) is characterised by a belief that one is not actually intelligent or accomplished, despite objective evidence of success, but rather has fooled others and is therefore vulnerable to discovery as a fraud. Impostor feelings are widespread in the post-secondary population and may be disproportionately experienced by groups already marginalised within academia (e.g., women, racialised students). The IP may be associated with significant mental health issues and changes long-term education and career plans; as such, it is imperative that administrators take steps to address impostorism on university and college campuses. The purpose of this review was to summarise factors of the IP from existing research on the experiences and background characteristics of undergraduate, graduate and professional students (i.e., medicine, law). Findings on the subject of IP and gender as well as IP and ethnicity were inconsistent. Most studies found that IP was negatively related to self-esteem and various dimensions of mental health. The relationship of IP to grade point average was inconsistent but several studies showed a negative association between IP and measures of academic performance. These findings suggest there is a critical need to bring awareness to and address experiences of the IP in the academic community; implications for campus mental health professionals are explored. Limitations of existing research are addressed and directions for future research are discussed.


The self-system model of motivational development was used in this study to examine whether and how student motivation and self-assessment practices—as psychological and behavioural mechanisms, respectively—link need-supportive teaching to students' objective achievement scores in English language learning. We applied a multilevel mediation analysis on Rasch-calibrated data from 796 students (53% females; mean age = 14.12, SD = 1.51) nested within 30 classes (mean class size = 26.53) in a secondary school in the Philippines. We collected all predictor variables (i.e. need-supportive teaching, motivation, self-assessment practice) in time 1, while achievement scores were collected eight weeks later (time 2). Lower-level mediation results show that students' perceptions of involved teaching and structured teaching are associated with higher controlled motivation and autonomous motivation. Furthermore, only autonomous
motivation was associated with higher achievement in time 2. Self-assessment practice significantly mediated the link between both controlled and autonomous motivation to achievement. These results held while controlling for age, gender, and socioeconomic status. Hence, involved teaching and structured teaching correlated with higher motivation and increased self-assessment practice, which, in turn, leads to higher achievement in English language learning. The findings highlight that motivation and self-assessment practices are psychological and behavioural pathways that can theoretically and empirically explain how need-supportive teaching practices impact student achievement in a specific subject. Implications and directions for future research are discussed.


Educational institutions are constantly aiming to better meet the academic needs of individuals with disabilities. As more students with disabilities attend postsecondary education settings researchers need to better understand how to apply both academic and behavioral interventions to better serve this population. Group contingencies are widely popular among educational settings to increase academic engagement and manage classroom behavior. More specifically, the classroom password is an independent group contingency intervention, often utilized in classroom settings to increase academic engagement and decrease disruptive and off-task behaviors. Utilizing a single case design withdrawal design, researchers sought to evaluate the effectiveness of the classroom password intervention to increase academic engagement and decrease disruptive and off-task behavior. Due to the COVID-19 pandemic, researchers utilized the classroom password via telehealth. Overall, the current study’s results demonstrate that the intervention was effective at increasing academic engagement and decreasing disruptive and off-task behavior. Furthermore, the intervention was rated high for social validity among most participants. Future studies should continue to explore the effectiveness, generalizability, and maintenance of these results.


This paper examines mobile cyberloafing, i.e. the use of phones for non-study purposes among Gen Z students, the first generation of digital natives. Drawing from research on misbehaviour and cyberloafing, we developed and tested a model with moral disengagement and subjective norms as predictors and psychological detachment and cognitive engagement as outcomes of cyberloafing. We also hypothesise that multitasking self-efficacy moderates the relationships between the antecedents and cyberloafing. Data were collected from 254 Gen Z students from a large state university in Europe. The findings show that subjective norms are negatively related to cyberloafing in class, while moral disengagement is positively related to it. In turn, cyberloafing is positively related to psychological detachment and negatively to cognitive engagement. The results also show a significant moderating effect for multitasking self-
efficacy. Implications for research and practice are discussed, as well as future research opportunities.


Since 2004, many researchers have considered that grade skipping has a positive impact on academic achievement and is not detrimental to psychosocial development. However, some recent works have called this evidence into question. Therefore, this literature review aims to verify the consistency and robustness of historical and recent results. This review concludes that: (a) on a global level, recent results are more robust (confounding factors are better controlled) and confirm previous results, but many other controls of confounding factors would need to be made; and (b) professionals may continue to recommend grade skipping, but they must remain cautious. Finally, it is still premature to argue that grade skipping has a definite positive impact, even if the results are encouraging and may at least invite teachers to consider grade skipping as a possible solution.


Insufficient sleep and sleepiness are common in adolescence and can negatively impact school performance. The current study examined sleep duration and sleepiness in academic performance and cognitive processes in early adolescence. Middle school students (N = 288; Mage = 12.01; 54% female; 48% Black, 37% White, 10% Hispanic) wore activity watches for seven nights, reported on daytime sleepiness, and completed computerized tests of attention and episodic memory. Academic performance was assessed with parent and teacher reports, and math and English/language arts (ELA) grades. Results revealed unique associations between daytime sleepiness and academic outcomes, but not cognitive processes. Both shorter and longer sleep duration were related to fewer academic enablers and lower academic skills and math grades. Students with the highest levels of academic performance occurred near 8 h of sleep per night. These results support the importance of addressing daytime sleepiness and optimal sleep duration in early adolescents.


This study investigated associations between kindergarten teachers' (N = 208) depressive symptoms and students' (Ghanaian nationals, N = 1490, Mage = 5.8) school-readiness skills (early literacy, early numeracy, social–emotional skills, and executive function) across 208 schools in Ghana over one school year. Teachers' depressive symptoms in the fall negatively predicted students' overall school-readiness skills in the spring, controlling for school-readiness skills in the fall. These results were primarily driven by social–emotional skills (r = .1–.3). There was evidence of heterogeneity by students' fall skill levels; teacher depressive symptoms predicted more negative spring overall school readiness for children who had higher fall school-readiness skills. Findings underscore the importance of teachers’ mental health in early childhood education globally, with implications for policy and practice.

Background and Aims Traditionally, research in educational psychology has neglected the physiological foundations of motivation, emotion, engagement, and learning. Recent studies have made substantial progress to more fully consider physiological processes, as documented in the contributions to this special issue. In this commentary, I summarize their findings, discuss strengths and weaknesses, and outline directions for future research. Results The studies showcase how physiological indicators can be integrated in research in educational psychology. The resulting findings document links between cardiovascular, electrodermal, and hormonal parameters as well as physical activity and a range of mental and behavioural processes in educational settings. Together, they attest to the critical role of physiological processes in students’ and teachers’ engagement. However, most of the studies used small samples and correlational designs, and not all of the findings were consistent. Future Directions To inform theory and practice in evidence-based ways, we need to make further headway in building a cumulative, coherent knowledge base. To this end, it may be helpful to more precisely specify the status of physiological indicators; secure construct symmetry of physiological, mental, and behavioural variables; use causal designs and within-person analysis; include sufficiently powered samples of participants and measurement occasions; employ multiple indicators and assessments to increase reliability and specificity; define the time windows and lags of assessments that are suited to capture physiological processes and their functions; and consider the role of socio-cultural contexts.


Today, the persistence of infantile attitudes into adulthood seems to have become a way of life associated with enjoyment and the renunciation of social obligations. Contemporary society, crossed by the emotional culture of Social Media, favors the example of parents who are friends with their children, of teachers who are enemies of their parents and of young people who are far from authority and traditional morality. Distances between parents and children and between teachers and pupils are eliminated. Today’s adolescent is represented with the image of Narcissus because within the affective family he grows up with the idea that success is the goal for achieving happiness and personal satisfaction. What future prospects can you imagine for young people? How to tackle adult frailty? The pedagogical debate could reflect on new educational systems that concern the affective and relational dimension of young people and the orientation skills of adults. By accepting the new needs of young people, adults could carry out that progressive process of affectivity, the acceptance of new educational, affective and relational functions.


Belonging is an individualized and complex phenomenon that is understudied among individuals with disabilities. Currently, there is an absence of voices of individuals with
disabilities regarding their experiences and perspectives. This scoping review aimed to identify the extent, range, and nature of research on belonging from the experiences of individuals with disabilities between 1974 and 2020. Collectively, 4441 articles were screened and a total of 13 studies were extracted and fully reviewed. The authors present findings on variables related to belonging, positive influence of belonging, and barriers to belonging. Limitations and future research are discussed.


Background This study investigated the role of different test anxiety components (affective, cognitive, motivational and physiological) as mediators between control and performance as proposed by Pekrun’s control-value theory (CVT). While all components were assessed via self-report, the physiological component was additionally assessed via electrodermal activity (EDA). Aims We examined the relative impact of the self-reported anxiety components and EDA in this mediating mechanism to identify the most relevant assessment(s) (i.e., self-reported anxiety components and/or EDA) for predicting test performance. Sample The study comprised 50 eighth graders. Methods Data were collected during a mathematics test comprising six task blocks. State self-reports of control and anxiety components along with test performance and other test emotions were collected block-wise (i.e., repeated assessments within students). EDA was continuously recorded. Results Consistent with CVT, intra-individual mediation analysis with multiple mediators revealed that higher control predicted lower anxiety (i.e., all self-reported components). Unexpectedly, higher control was associated with increased EDA. Follow-up analyses taking other test emotions into account suggested this might reflect positive activation. Correlations between EDA and control and self-reported anxiety components differed depending on which test emotion was dominant in each situation. Regarding test performance, only the cognitive component was a significant mediator and thus seems to play a pivotal role in the relationship between control and performance. Conclusions Distinguishing between anxiety components and including unbiased physiological measures improve our understanding of the mechanisms behind the relationship between test anxiety and performance. Higher physiological arousal may be a sign of anxiety but can also be a sign of positive activation. When aiming to reduce negative effects of anxiety on performance, targeting the cognitive component seems crucial. Implications of these findings for educational and psychological practice are discussed.


Parents experience difficulty helping their children with math at home. Math teachers can provide guidance or materials to parents. Little is known about whether this help from math teachers has benefits for parental support at home and thus contributes to students’ academic development in math. The current study examines longitudinal associations between parents’ perceived support from math teachers, parental academic support at home (reported from parents and students), and changes in students’ intrinsic motivation and anxiety in math. Data stem from ninth and tenth graders (Mage = 14.49, SD = 0.93, 13 public schools, 56.5% girls) and their parents (N = 157 parent–
child dyads). The latent structural equation model demonstrated no association between parents' perceived support from math teachers and their academic support at home. Parents' reported academic support at home was cross-sectionally and positively related to students' perceived parental academic support at home and students' intrinsic motivation. In addition, students' perceived parental academic support at home was associated with positive change in students' intrinsic motivation over the academic year. Furthermore, higher student intrinsic motivation leads to a decrease in their anxiety in math over the academic year.


This study examined the impact of the COVID-19-induced school lockdown on need satisfaction, well-being and motivation in both gifted and non-gifted primary school students in the Netherlands. A total of 312 parents (122 from gifted children) participated. The lockdown had mainly negative effects on students' need satisfaction, well-being and motivation. However, the impact of the lockdown was less negative for gifted students. There was also a levelling effect: Before the lockdown, gifted students had lower need satisfaction, well-being and motivation than their non-gifted peers, but these differences decreased during the lockdown due to (stronger) declines in the non-gifted. Changes in non-gifted students' well-being and motivation, because of the lockdown, were negatively mediated by autonomy and relatedness with classmates. Among the gifted, this was positively mediated by competence. Only before the lockdown, the effects of giftedness on well-being and motivation were mediated by autonomy and relatedness satisfaction.


Establishing autonomy and maintaining relatedness with parents are two of the most crucial goals for adolescents and meeting these goals can be critical for academic and psychological adjustment. A two-dimensional framework was proposed for exploring the integrative synthesis of autonomy and relatedness, but its cultural applicability was limited. To better account for the situations associated with non-Western cultural context, this study extended the prior framework to three dimensions (volition, functional independence, and relatedness) and utilized latent profile analysis to explore the configurations and their concurrent and longitudinal (one year later) associations with adjustment (academic engagement, academic buoyancy, depressive symptoms, and externalizing problems). The study collected data from 3992 Chinese adolescents (51.33% girls, Mage = 15.41, SD = 0.55). Latent profile analyses identified five profiles: High, High Functional Independence, Moderate, Low Functional Independence, and Extremely Low Functional Independence. The High profile was the robust optimal pattern for academic and psychological adjustment, while the Low Functional Independence and Extremely Low Functional Independence were risk patterns over time. The High Functional Independence profile was only conducive to academic areas but not to psychological
areas. Findings demonstrated the necessity of the three-dimensional framework in this field.


Many prior studies have documented disparities in school discipline practices across racial, economic, and other student characteristics. The primary purpose of this study was to determine the extent to which students affected by intergenerational poverty (IGP) received infractions (incidents) and experienced exclusionary disciplines (suspensions and expulsions), relative to other student groups. To do so, this study examined incident and discipline rates, calculated the number of lost days of instruction per 100 students, considered the number of days lost based on disciplines received, and conducted an analysis of the disciplines received by students affected by IGP and similar peers. Results suggest that students affected by IGP have higher discipline rates than other student groups and were 1.78 times more likely to receive a discipline than similar peers. Policy considerations include a set of metrics useful at the state and local level for ongoing monitoring, the importance of data quality, and the need to revisit related policies and their implementations.


The purpose of this paper is to examine the complex relationships between educational policy and classroom practice. By employing a sociocultural perspective, we examine formulations inscribed in socio-material artifacts about what students should learn and how they should engage with knowledge. We explore how these formulations are mobilized in instructional work and the implications this activity has for student participation. To address this issue, we analyzed video data of how teachers invoke competence aims from the national curriculum in their instructional work in six classrooms. The analytical procedures were derived from interaction analysis. The analysis focuses on how such formulations explicitly mediate social interaction as it unfolds on a micro level. The findings show that competence aims gain different functions as they are mobilized in classroom practice; in other words, they serve different purposes in teachers’ instructional work and anticipate different modes of student participation. In this study, the competence aims were (a) invoked as a source of authority, (b) translated into instructions, and (c) mobilized to obtain social order in the classroom. More rarely, the competence aims were used in meta-level discussions, where they functioned to reach agreements on how to pursue work toward joint goals. We discuss the implications of these ways of invoking competence aims for student participation.


Student behavior problems in general-education classrooms present a major barrier to effective teaching. Behavior challenges, such as disruptions, noncompliance, and peer conflicts, reduce instructional time, whereas prosocial behaviors, such as paying
attention, being ready to work, asking for help, participating in class, and completing homework, improve academic performance. Most interventions developed to address student behavior problems were not designed for general-education students in typical classrooms. The purpose of this paper is to present preliminary results from a novel intervention developed to enhance behavioral self-management skills among all upper-elementary students in general-education classrooms. We Have Choices, a universal intervention, was designed to increase students’ capacity to make appropriate behavioral choices and decrease teachers’ responsibility by transferring behavior management to students. An initial randomized controlled trial with 86 fourth- to sixth-grade teachers and 2055 students suggested that We Have Choices was associated with improvements in student-reported use of self-management strategies, teacher-reported student prosocial behavior, and teacher-reported self-efficacy in behavior management and instruction. Teachers gave the program high scores for social validity, suggesting a good fit for their classrooms.


Dunbar and Baker (2014) identify the personal experiences of teaching as “emotional labor” based on Hargreaves (1998) “emotional practice” of teaching. We engaged in a collaborative self-study investigating the emotional work of teacher educators during a global pandemic. We examined the role of liaison in our context - university faculty working to support teacher candidates in school placements for a “professional year.” Liaisons serve in “boundary crossing” (Akkerman & Bakker, 2011) roles and negotiate stressors within multi-membership across contexts. The development of teacher educators would benefit from explicit attention to care, relationships, and negotiating boundaries in sites of clinical practice.


This study attempted to create a valid and reliable instrument to measure how gifted children perceive the gifted label and others’ perceptions of giftedness. We recruited a total of 300 gifted Turkish children (59.3% males; 40.7% females) aged 10–13 years (M = 11.4, SD = 0.99) to this validity and reliability study. For validity concerns, we first pooled the items relying on the relevant theoretical frameworks. Next, we resorted to expert opinions and employed the Lawshe technique to explore the content validity of the scale. Then, we performed confirmatory factor analysis to investigate the construct validity of the scale after checking multivariate normality through the Relative Multivariate Kurtosis value. Finally, we calculated Cronbach’s alpha coefficients to reveal the internal consistency of the five-factor model. Content validity ratio values showed that each item on the scale yielded an acceptable level of content validity. In addition, we concluded a significant Content Validity Index for the scale (0.82). Finally, we calculated Cronbach’s alpha coefficients to be higher than .70 for the subscales. Overall, the findings suggested that the perception of gifted label scale (PGLS) has an acceptable psychometric quality regarding its validity and reliability. Gifted children’s self-reports may provide more valuable data to better understand the labeling phenomenon and help design preventive educational interventions against the...
negative impacts of labeling. Therefore the PGLS may lead the way of future studies on the effects of the gifted label on gifted children.


In this study, we propose to analyse students' drawings using the Semiotic Cultural Psychological Theory (SCPT), a socio-cultural psychological model that integrates semiotics with dynamic systems theory. According to the SCPT framework, students-generated drawings can be analysed in terms of generalised meanings, i.e., implicit assumptions about the represented content. We applied SCPT to identify a set of generalised meanings about seasonal changes and to investigate whether they depend on students' grade level. We used a draw-and-explain task to collect drawings and written explanations about seasonal changes produced by 495 Italian 8th grade (N = 196) and 9th grade (N = 299) students. The analysis was based on Multiple Correspondence Analysis and Cluster Analysis. Five generalised meanings about seasonal changes were identified: 1) Climate; 2) Static Earth – Sun; 3) Moving Earth – Sun; 4) Rays – Earth; 5) Moving Earth–Orbit– Sun. The emerging generalised meanings were significantly associated with students' written explanations and grade level. Moreover, generalised meanings were informed by the cultural conventions adopted in textbook representations about seasonal changes. Findings suggest that the SCPT framework can be productively used to analyse students-generated drawings about natural phenomena and to detect specific features of textbook representations that can impair the development of appropriate scientific knowledge.


Background Group affective states for learning are constantly formed through socio-emotional interactions. However, it remains unclear how the affective states vary during collaboration and how they occur with regulation of learning. Appropriate methods are needed to track both group affective states and these interaction processes. Aims The present study identifies different socio-emotional interaction episodes during groups' collaborative learning and examines how group affective states fluctuate with regulation of learning during these episodes. Sample The participants were 54 secondary school students working in groups across four science learning sessions. Methods Multichannel process data (video, electrodermal activity [EDA]) were collected in an authentic classroom. Groups' affective states were measured with emotional valence captured from video data, and activation captured as sympathetic arousal from EDA data. Regulation of learning was observed from the videotaped interactions. Results The study disclosed four clusters of socio-emotional interaction episodes (positive, negative, occasional regulation, frequent regulation), which differed in terms of fluctuation of affective states and activated regulation of learning. These clustered episodes confirm how affective states are constantly reset by socio-emotional interactions and regulation of learning. The results also show that states requiring regulation do not automatically lead to its activation. Conclusions By advancing existing understanding of how group level socio-emotional processes contribute to regulation of learning, the study has
implications for educational design and psychological practice. Methodologically, it contributes to collaborative learning research by employing multiple data channels (including biophysiological measures) to explore the various dimensions of socioemotional processes in groups.


This study investigated the compensating mediating mechanism of resilience in the relationship between loneliness and life satisfaction in Thai and Chinese college students during a risk period of coronavirus disease 2019 transmission. A total of 262 Thai and 247 Chinese college students were enrolled in the study between December 2020 and January 2021. A measurement model was constructed with the items of loneliness, resilience, and life satisfaction by using structural equation models. Subsequently, structural mediating models were constructed according to the valid items and a multigroup comparison was performed. The relationship between loneliness and life satisfaction differed significantly between Thai and Chinese college students as a result of the mediating effect of resilience. Resilience in Thai college students partly compensated for the negative influence of loneliness on life satisfaction, and resilience in Chinese college students compensated completely for the negative influence of loneliness on life satisfaction.


We build upon the social cognitive career theory model of career self-management (SCCT-CSM) to test the effects of psychological capital constructs (hope, self-efficacy, optimism and resilience) on preparatory and active job search behaviours, mediated by job search goals in a multi-group study of university graduates who undertook work placement learning before graduation and those who did not. Using a two-wave data from 473 university fresh graduates in the one-year national youth service corps (N = 209 who undertook work placement learning before graduation) and (N = 264 who did not undertake work placement learning) in Nigeria, we test an SCCT-CSM-driven model employing structural equation modelling for the multi-group study. The findings revealed positive effects of self-efficacy and optimism on the preparatory and active job search behaviours across both samples but higher effects in the graduates who undertook work placement learning before graduation. Job search goals mediated the effects of self-efficacy and optimism on their preparatory and active job search behaviours in both samples. The serial mediation results show that self-efficacy and optimism indirectly affect the active job search behaviours via job search goals and preparatory job search behaviours. The implications of these results are discussed.

This longitudinal study assessed the relative importance of second language exposure, motivational and attitudinal factors, and executive functions in predicting receptive vocabulary acquisition in children and adolescents after controlling for background characteristics (socio-economic status, non-verbal intelligence) and prior knowledge. The sample comprised 721 participants from French-speaking Belgium: 369 fifth-graders from 13 elementary schools and 352 eleventh-graders from 9 secondary schools. The background, input, and socio-affective data were obtained through questionnaires, the cognitive and language data through a round of computerized data collection, twice with an 18-month interval. While some input and motivational variables were predictive of vocabulary acquisition when analyzed separately, most of them lost significance once combined. Measures of executive functions were not related to vocabulary acquisition. Classroom input was predictive among children and adolescents, but other age-related differences emerged. The findings call for caution regarding the separate treatment of factors believed to be involved in second-language acquisition.


This study explored the short-term longitudinal associations between Five Factor Model (FFM) and social goals (social dominance, popularity, and intimacy), with relational aggression (RAgg) as a mediator. RAgg was claimed to mediate the positive correlations of neuroticism with dominance and popularity, whereas extraversion was argued to positively relate to intimacy through low RAgg. The participants were 2207 Greek 13- to 16-year-olds (M = 14.04; 52.8% female), mostly from middle-class families. Respondents completed three self-report measures (T1, T2; 6-month interval) during the school year. Confirmatory factor analysis explored a measurement model, whereas a longitudinal mediation model tested whether RAgg mediates the relationship between personality and social goals. Cross-lagged correlations revealed associations of RAgg with neuroticism, dominance, and popularity but not openness, conscientiousness, extraversion, and agreeableness. Weak positive correlations emerged between FFM traits and intimacy, neuroticism, and dominance. Results indicated positive indirect effects from T1 neuroticism and negative from T1 agreeableness to T2 RAgg, which was then positively linked to T2 dominance and popularity. The research highlights the importance of RAgg as a mechanism for endorsing social goals for adolescents with specific personality traits. Intervention strategies aiming at limiting RAgg could consider agreeableness and neuroticism, providing adolescents with the behavioral tools to cope with anxiety and negative affect.


Medical students report high levels of psychological distress compared to the general population, yet they also underutilize mental health services. Our Mindfulness-Based Art Workshops (MBAW) combine two established, formal interventions: (a) Mindfulness-Based Stress Reduction, an 8-week group series teaching mindfulness practices, shown to reduce self-reported measures of stress, and (b) art therapy, the use of art exercises guided by certified therapists, shown to reduce stress and anxiety in hospitalized patients and students. The goal of our study was to determine if a peer-led, virtual workshop series
designed specifically for and by medical students may be a feasible and effective method of adapting these models to improve student well-being. We hypothesized that virtual, medical student led MBAW are effective in reducing measures of stress, anxiety, and depression in medical students and improving well-being scores. In 2020, 24 University of Maryland School of Medicine first- and second-year medical students were randomized to either the MBAW or no-intervention control group. Primary outcomes included (a) short-term change in State Trait Anxiety Inventory (STAI) scores and (b) difference in the perceived stress scores between intervention and control group immediately after, and 2, 4, and 6 weeks after a 6-session intervention. At specific time points, participants completed questionnaires, which included STAI and National Institutes of Health (NIH) Toolbox Perceived Stress survey. We compared the percentage of intervention participants who had clinically significant anxiety before and after MBAW for each session using a generalized estimating equations methodology and compared change from baseline scores between intervention and control groups using a mixed-effects model for repeated measures analysis. In the intervention group, post-MBAW STAI scores decreased by 16.2 (p = .0001), 5 (p = .1544), 13.7 (p = .0002), 13.6 (p = .0006), 12.1 (p = .0009), and 11.9 (p = .0011) points after sessions 1, 2, 3, 4, 5, and 6, respectively. Intervention group perceived stress scores decreased from baseline by 5.9 (p = .07) and 4.7 (p = .09) points more than the control group immediately after, and 2 weeks after the 6-session intervention. MBAW sessions are effective at significantly reducing short-term anxiety, and a 6-session MBAW workshop intervention shows trends toward decreasing levels of perceived stress lasting 2 weeks following the intervention, although these findings were not statistically significant. Future studies should evaluate a larger population to confirm the positive findings of this pilot study, which we hope will encourage medical schools to consider integrating and supporting such programs as a method of addressing the urgent need to aid student well-being, within logistical, time, and cost constraints of students and administrators.


The Motivated Strategies for Learning Questionnaire (MSLQ) is one of the most widely used instruments to measure students’ motivation and self-regulated learning. However, the MSLQ was developed and has been predominantly used in the Western context, is a domain-general measure, and is quite lengthy. Hence, adapting the MSLQ to the Chinese educational context, validating its application in specific subjects, and developing a short form would be an optimal way to improve its accessibility. This study aimed to investigate the psychometric properties of the Chinese version of the MSLQ in mathematics learning (i.e., MSLQ-C) and develop a short form (i.e., MSLQ-CS) using set exploratory structural equation modeling. The sample consisted of 563 senior secondary students in China. Results demonstrated that both MSLQ-C and MSLQ-CS showed acceptable construct validity, reliability, and concurrent validity. Furthermore, structural relationships and interrelationships among the subscales and their relationships with mathematics achievement were highly similar for MSLQ-C and MSLQ-CS. Theoretical and practical implications are discussed.

The present study adopted the daily diary technique and examined the relationships among teachers' perceived student disengagement, emotional labor, and emotional exhaustion. The data included 587 Canadian teachers' 4,084 diary survey responses. Multilevel structural equation modeling was conducted at both the daily and teacher levels. At the daily level, perceived student disengagement was associated with teachers' genuine expression and faking of negative emotions. At the teacher level, early-semester emotional exhaustion corresponded with perceived student disengagement and teachers' hiding of negative emotions, which yielded even worse late-semester emotional exhaustion. Perceived student disengagement was also related to teachers' genuine expression of negative emotions.


The COVID-19 pandemic has led to a global crisis resulting in lockdowns worldwide. Studies found that these could amplify negative affects predictive of disturbances in time perception. However, all existing studies on this topic concentrated on the general population during a lockdown at home. There was no research on university students living in dormitories. This study fills a gap in the literature by investigating the affective states and awareness of the passage of time of Chinese university students during an exceptional dormitory lockdown. Using a snowball sampling approach, this web-based study recruited 225 volunteers (136 girls, 17−27 years old) during a dormitory lockdown. The online survey consisted of questions on demographic information, affective states (the Chinese version of the depression anxiety stress scales-21 (DASS-21) on depression, anxiety, and stress), and sense of the passage of time (the translated version of the assessment of passage of time over daily, weekly and yearly periods). The researchers shared the questionnaire link via the social media application WeChat. The study applied descriptive statistics and column charts to represent students’ affective states and sense of the passage of time under extreme conditions and Pearson’s correlation analysis to examine the impact of affective states on their sense of time. The study’s results indicate that the dormitory lockdown caused a significant increase in all depression, anxiety, and stress categories of the DASS-21, as well as a distortion of the sense of time passing. However, the direction of the distortion differed from that in previous studies. Moreover, a Pearson correlation analysis showed that none of the three negative affects could be associated with students’ sense of time. The findings of this study indicate an increased vulnerability of students due to the lockdown. Their emotions were strongly affected, requiring particular interventions to preserve their mental well-being. In addition, they showed a different distortion direction of time passage. Finally, they differed in the correlations between negative affect and the sense of passage of time compared to the general population in lockdown at home. This shows a need to investigate the impact of psychological states on students' routines and quality of life in emergencies. This study’s scope should be expanded by incorporating additional factors pertaining to the passage of time and by integrating cross-cultural comparisons.

Given the pivotal role of student satisfaction in the higher education sector, myriad factors contributing to higher education satisfaction have been examined in the literature. Within this literature, one lesser-researched factor has been that of the quality and types of interpersonal interactions in which students engage. As existing literature has yet to fully explore the contributions made by different forms of interaction to student satisfaction in higher education, this study aimed to provide a more fine-grained analysis of how different forms of interaction between students, their peers and their instructors relate to different aspects of student satisfaction. A total of 280 undergraduate students from one of the largest higher education institutions in Singapore participated in the study. Results provided an in-depth analysis of eight aspects of student satisfaction (i.e. satisfaction with the program, teaching of lecturers, institution, campus facilities, student support provided, own learning, overall university experience and life as a university student in general) and suggested that the different aspects of student satisfaction were associated with three different forms of interaction: student–student formal, student–student informal and student–instructor.


Gender-math stereotypes are thought to be a threat for women’s mathematical performance, however, the mechanism of gender stereotype affecting mathematics achievement is not clear. The current study aimed to explore the different role of attitude towards mathematics and math self-concept in the relationship between gender-math stereotypes and mathematical performance for men and women. A total of 297 Chinese college students participated in our survey. Results showed that math self-concept played a suppressing effect on the relationship between gender-math stereotypes and women’s mathematical performance, while attitude had no mediating role in the relationship between gender stereotypes and mathematical performance. However, gender-math stereotypes could not directly predict men’s mathematical performance, nor could it predict through math self-concept or attitude towards mathematics.


The major objectives of our study were (a) to identify student profiles according to five homework characteristics (homework time, frequency, quality, interest, and favorability) and (b) to examine their relationship with three critical variables in the homework process—homework effort, completion, and math achievement. Latent profile analysis (LPA) was used to examine a data set with 3018 8th graders in China. Based on these characteristics, five distinct profiles were identified: Profile 1 (Low), Profile 2 (Moderate Time/High With Others), Profile 3 (Low Frequency/Moderate With Others), Profile 4 (Moderate Time/High Frequency/Low With Others), and Profile 5 (High Time and Frequency/Moderate With Others). Parent education was positively associated with the two healthiest profiles (Profile 2 and Profile 5). Finally, profile membership was a significant predictor of homework effort, completion, and math achievement. Specifically, our study suggests that students can work about 30 min on math homework and achieve the same results, if they work often, with high quality, fueled by interest and favorability.
(compared with students who spend about 110 min on math homework). Taken together, our study provided novel insights into the combination of homework characteristics that could have significant implications for homework practice and research.


Japan’s Social Thinking and Academic Readiness Training (START) program Academic Readiness (AR) lesson aims to improve self-regulation, executive function, and behavior problems in kindergarten children, but the effects of the START program AR lessons in unfavorable circumstances are unclear. Therefore, this study investigated the effects of the START program AR lesson in affected areas after the Great East Japan Earthquake. A cluster randomized trial was conducted with 111 5-year-old children in two kindergartens in Miyagi Prefecture to evaluate the effectiveness of the six-week AR lesson. One kindergarten was randomly chosen to implement the AR lesson, and the other maintained standard education. In the intervention group, trained classroom teachers provided the children with a 20-min AR lesson once a week. Executive function, behavioral self-regulation, and internalizing and externalizing problem behaviors were measured before and after the six-week intervention. The intervention group showed improved inhibitory control and enhanced behavioral self-regulation compared with the standard practice group. In addition, teachers’ evaluations showed that children’s internalizing and externalizing problem behaviors improved significantly. The results indicate that the START program AR lesson was effective in enabling teachers to help students improve executive function, self-regulation, and problematic behaviors. Therefore, educators and policy-makers should consider implementing the START program AR lesson in kindergartens after a disaster.


Drawing on the career construction theory model of adaptation, this meta-analytic structural equation modeling (MASEM) examines the effects of proactive personality on the subjective career success of adolescents and emerging adults. We identified 46 studies that covered 52 independent samples and 24,092 participants through literature retrieval. Based on these studies, we created an integrative model linking proactive personality with career adaptability, student career construction, and subjective career success. The results of the meta-analysis showed that all bivariate relationships among proactive personality, career adaptability, student career construction, and subjective career success were significantly positive. The results of the MASEM indicated that career adaptability intervened in the relationship between proactive personality and subjective career success, but student career construction, as a suppressor, carried out the negative association between proactive personality, career adaptability and subjective career success in the sequence of adaptation. We also discuss the research implications and provide directions for future research.

Background An interplay of emotional and cognitive aspects underlies academic performance. We focused on the contribution of such interplay to text comprehension. Aims We investigated the effect of worry on comprehension and the role of two potential moderators of this effect: physiological self-regulation as resting heart rate variability (HRV) and working memory updating. Sample Eighty-two seventh graders were involved in a quasi-experimental design. Methods Students read an informational text in one of two reading conditions: to read for themselves to know more (n = 46; low-worry condition) or to gain the highest score in a ranking (n = 36; high-worry condition). Students’ resting HRV was recorded while watching a video of a natural scenario. The executive function of working memory updating was also assessed. After reading, students completed a comprehension task. Results Findings revealed the moderating role of HRV in the relationship between induced worry and text comprehension. In the high-worry condition, students with higher resting HRV performed better than students who read under the same instructions but had lower HRV. In contrast, in the low-worry condition, students with higher resting HRV showed a lower performance as compared to students with lower HRV. Finally, working memory updating was positively related to text comprehension. Conclusions Our findings indicate that the cognitive component of anxiety, that is, worry, plays a role in performing a fundamental learning activity like text comprehension. The importance of physiological self-regulation emerges clearly. In a condition of high worry, higher ability to regulate emotions and thoughts acts as a protective factor.


Previous studies have shown that personal factors serve as mediators in the link between self-compassion and subjective well-being (SWB). However, these studies have neglected the possibility that online prosocial behavior (OPB) may serve as a mediator in the link between self-compassion and SWB. Based on the PERMA theory of well-being and the protective-protective model, the current study examined whether OPB would mediate the association between self-compassion and individual SWB, and whether gratitude would moderate the association between self-compassion and OPB. A valid sample of 1488 college students (Mage = 19.84; SD = 1.61) filled out questionnaires regarding demographics, self-compassion, OPB, gratitude, and SWB. Results showed that, after controlling for gender, age, daily online time, and social desirability, OPB mediated the association between self-compassion and individual SWB, and gratitude strengthened the positive association between self-compassion and OPB. These findings reveal that high self-compassionate and grateful people can enhance their subjective well-being through behaving prosocially online.

The feelings of difficulty and familiarity (FOD and FOF) are two types of metacognitive experiences. Both may influence student engagement and the application of metacognitive strategies, but these relationships are not well understood, in part because many studies have relied on self-report measures of behaviors that may not accurately reflect students’ actual behaviors. In this study, FOD and FOF were related to objective measures of off-task behaviors and metacognitive strategies. These measures were extracted from 88 sixth graders’ action logs within a computer-based learning environment known as Betty’s Brain. Pre- and post-tests were administered to assess learning. Results reveal that high-FOD students showed more off-task behaviors and fewer strategic behaviors than low-FOD students, particularly when this difference was measured in terms of the frequency (as opposed to proportion) of strategic behaviors. FOF was not associated with off-task behaviors and metacognitive strategies but emerged as a moderator in the relationship between FOD and learning gains. Low-FOD students learned more than high-FOD students in the low-FOF group, but such a difference was not found in the high-FOF group.


This study examined the relationship between grade and the ability of text-picture integration in terms of task completion and the pattern of using textual and pictorial information. Children (N = 144) from secondary schools were recruited from grade 5 and grade 8. Analyzing the time spent with the multimedia unit prior to an incorrect response, this study suggests that 5th graders tend to give up relatively early compared to 8th graders. Furthermore, early incorrect responses were more prevalent among students of the non-academic track and were predicted by a low proportion of fixations on the text in mental model construction and on the picture in adaptive mental model specification. An inappropriate approach of integrating text and picture can thus be the reason for giving up early. The work provides a basis for (1) automated feedback during the course of working on a multimedia unit. (2) Instructional design should be adapted to the characteristics of student groups to support text-picture integration and to avoid giving up early.


We analyze the evolution of education inequality and the gender gap in Ghana before and after two major education reforms. Using different measures of inequality, our findings suggest that the gender gap at the basic school level has closed following the introduction of the education expansion policies, but inequalities persist at the postbasic school levels and across regions. We further demonstrate that the educational expansion–schooling inequality nexus is best illustrated by an inverted U-shaped Kuznets curve. We find that after an average of 6 years of schooling has been reached, inequality starts to decline, and gender equality can be achieved when the average years of schooling reach 9.

School-based actors can uphold racialized systems and White supremacy through the racialized youth trauma narratives they reproduce. With respect to the growing movement to better support trauma-exposed youth inside school contexts, it is imperative that school-based actors avoid perpetuating deficit views of youth of color, who are disproportionally overexposed to traumatic experiences. Drawing on the youth trauma literature and personal experiences with educators, this essay outlines three common trauma tropes: (a) the hearing gunshots trope, (b) the socioeconomic myth trope, and (c) the what happened to them trope. These narratives are viewed as tropes because they function as rhetorical tools that ignite White-racialized ideological responses and perpetuate the racial status quo. In closing, the author shares four recommendations to better support trauma-exposed youth and provides empirical pathways for researchers to further study the race-trauma nexus.


Background We examine the development of youth sociopolitical consciousness and agency in an eighth-grade science classroom as students of color engage in critical speculative design activities, exploring the multi-scalar, racial realities and possibilities of the science and engineering of pervasive digital technologies—specifically involving the entanglement of lightwaves and melanin in computer vision and artificial intelligence (AI) technologies.Methods Through case studies of two girls of color (ES and GS), we analyze the youths’ learning pathways across three instructional phases: threading practices (learners’ sociopolitical interpretation); weaving practices (learners’ coordination of multiple ways of knowing and being in relation to their interpretation); and patternmaking practices (learners’ visions of more just patterns, practices, and politics through speculative design).Findings Our analyses show how youth use their felt, cultural, and community knowledges, as well as their developing scientific knowledge of physics, to confront and analyze manifestations of racial bias in technologies. The findings highlight the significance of teachers’ pedagogical support and providing opportunities for meaningful transdisciplinary science investigations and speculative designing for more just and thriving futures.Contribution The Critical Speculative Design Pedagogy framework developed suggests how such activities in the classroom can cultivate equitable, expansive science learning that is consequential to youth and their communities.


La triche est un phénomène majeur, elle se retrouve à tous les stades de scolarisation indépendamment des milieux sociaux, du genre et du niveau d’étude (Murdock et al., 2001). Cette problématique a donné lieu à des recherches et investigations nombreuses mais sans questionner ce qui se joue au sein d’un collectif de tricheurs. Si repérer et quantifier les tricheurs a souvent été fait en Sciences de l’Éducation et de la Formation comme en Psychologie du Développement, cette thèse se propose de questionner ce qui se joue dans la relation entre des partenaires de triche via'l'angle coopératif en milieu
Une première phase de ce travail interroge, à travers un dispositif ludique, l’engagement dans la triche en fonction de la situation de l’élève (seul ou en binôme). La deuxième interroge plus finement les comportements des élèves en les mettant face à leurs réactions. L’école républicaine a la particularité d’avoir une histoire avec chaque élève (Giust Desprairies, 2018), touchant au particulier comme au collectif, elle véhicule des valeurs prosociales, et principalement celle de la confiance (loi n° 2019-791 du 26 juillet 2019). Cette recherche problématisée cette relation de confiance entre l’élève et l’institution scolaire à travers le comportement de triche. Plus spécifiquement, il s’agit d’interroger la place de la coopération dans la triche en collectivité, la place de la règle institutionnelle dans le déploiement de ce comportement et le rôle de l’inhibition dans le bon déroulement d’une activité collective transgressive.


Socioeconomic status has been a long-time discussed topic due to its impact on children’s school paths. However, despite extant research indicating strong relationships between students’ socioeconomic status, use of self-regulated learning strategies, and academic achievement, research on interventions addressing these topics is limited. This investigation aimed to examine the effectiveness of a school-based, narrative-based program to promote self-regulated learning strategies and academic performance among fourth-graders from low socioeconomic backgrounds. Twelve classes were randomly assigned to the intervention or control group. The students from low socioeconomic status backgrounds in each group were enrolled in the study. A quasi-experimental study with three measurement moments was conducted. Data were gathered from self-reported questionnaires and an on-task measure. Findings indicate that the program was efficacious in promoting the use of self-regulated learning strategies and academic performance in children from low socioeconomic backgrounds. This research paper discusses both practical implications and future research guidelines.


L’Ontario accueille près de la moitié des réfugiés du Canada, un nombre qui devrait augmenter. Environ 20 % d’entre eux (de 25 à 54 ans lors de leur arrivée) poursuivent des études postsecondaires dans le pays, ce qui est peu par rapport à d’autres catégories d’immigrants, en raison d’obstacles informationnels, économiques, sociaux et culturels. Les réfugiés ayant fréquenté des établissements du postsecondaire soulignent l’importance d’informations claires au début du processus, de réseaux sociaux solides et d’un mentorat pour réussir. Les étudiants réfugiés ayant participé à des activités d’apprentissage intégré au travail se sont sentis plus compétitifs dans leur recherche d’emploi.

Souvent désignée comme un modèle éducatif innovant, compatible avec des objectifs d’égalité des chances et d’accommodement du scolaire aux besoins de l’économie, l’École 42 fondée par Xavier Niel illustre avant tout une dérégulation du système éducatif par un acteur privé.


How does a large structural change to the labor market affect education investments made at young ages? Exploiting differential exposure to the national decline in routine-task intensity across local labor markets, we show that the secular decline in routine tasks causes major shifts in education investments of high school students, where they invest less in vocational-trades education and increasingly invest in college education. Our results highlight that labor demand changes impact inequality in the next generation. Low-ability and low-SES students are most responsive to task-biased demand changes and, as a result, intergenerational mobility in college education increases.


In this paper we study social stratification in the impact of poor air quality on educational achievement. We address two main questions. First, are students from socioeconomically disadvantaged families more likely to attend schools with poor air quality? Second, is the effect of bad air quality for school results the same for children from high and low socioeconomic status families? We use a novel data set with test scores in math and reading for 456,508 students in 8th grade in a test administered nationally in Italy in 2019. We geocode the location of 6,882 schools based on their addresses and link the level of air pollution of the area around the school, using data on fine particulate matter provided by the Atmospheric Composition Analysis Group. To deal with possible confounders we use municipality fixed effects and control for an indicator of the characteristics of the school neighbourhood, using administrative fiscal data of the real estate values of the area around the school. We have three main findings. First, there is no SES gradient in the exposure to poor air at school. Second, we find a small but robust negative effect of particulate matter 2.5 (PM2.5) on test scores in math but not in reading. Third, this effect is mostly concentrated among low SES students. Conversely, high SES students are largely unaffected by exposure to poor air quality at school. We conclude that exposure to air pollution can exacerbate inequalities in education and the intergenerational transmission of disadvantage.


The growth mindset, or the belief that intelligence can be increased with effort, has been shown to be positively associated with improved learning outcomes. This association has been observed in a few studies that inquired into reading outcomes, and fewer studies that looked into reading in a second language. The current study used data from the
Programme for International Student Assessment (PISA) 2018 database to investigate the relationship between growth mindset and reading proficiency of Filipino students learning English. Data were from 6766 students who spoke a Philippine language at home, who were learning reading in English in high school, and who were assessed for reading proficiency using English texts. The study also inquired into the role of the students’ socioeconomic status (SES) and controlled for some teacher-related and motivation-related variables. Results of hierarchical regression analysis showed a weak but significant positive relationship between growth mindset and reading proficiency. The relationship between SES and reading proficiency was stronger; more importantly, SES moderated the relationship between growth mindset and reading proficiency. The positive relationship between growth mindset and English reading proficiency became weaker as the students’ SES decreased; the relationship was nonsignificant among students with the lowest SES. The discussion refers to SES differences in reading English language-learning environments in the Philippines and considers how resources in the learning environment enable (or constrain) the role of growth mindset in improving learning outcomes.


The recent inclusion of cultural capital into the English Ofsted Education Inspection Framework (2019) caused a ripple of discontent within some educational circles, with some suggesting it is indicative of ‘white, middle-class paternalism’. Here, we consider the political rise of Bourdieu’s concept of ‘cultural capital’ within the English Education Inspection Framework (2019), given that it now affects all English schools subject to Ofsted’s inspection. We also explore how one of the 19th Century texts in the GCSE English literature curriculum can be analysed through a queer prism, to offer a thought-provoking inclusive interpretation of the narrative and release its queer cultural capital. Finally, we invite classroom practitioners to deliberate their current pedagogical actions and consider adopting a queer pedagogy to counteract the pervasive heteronormativity that embeds assumptions of heterosexuality within school ecosystems; thus challenging the discomforting otherness and insidious silencing regimes that position LGBTQ identities as taboo and off topic.


As universities face unprecedented pressure to diversify, campus communities must reckon with the fact that nearly one-third of underrepresented and racially minoritized (URM) faculty are in an academic couple. Despite the prevalence of URM academic couples, research rarely captures their perspectives, which could shed light on their experiences with dual-career hiring and inform faculty diversification efforts by revealing barriers to their inclusion. Guided by critical race theory, this study draws upon couple and individual interviews with nine URM faculty couples, and reveals how they endure racialized devaluation of their merit and racialized sexism against women partners. Implications for recruitment and retention are discussed.

This paper discusses the crucial but sometimes neglected differences between unconditional quantile regression (UQR) models and quantile treatment effects (QTE) models. We argue that there is a frequent mismatch between the aim of the quantile regression analysis and the quantitative toolkit used in much of the applied literature, including the motherhood wage penalty literature. This mismatch may result in wrong conclusions being drawn from the data, and in the end, misguided theories. In this paper, we clarify the crucial conceptual distinction between influences on quantiles of the overall distributions, which we term population-level influences, and individual-level QTEs. Further, we use data simulations to illustrate that various classes of quantile regression models may, in some instances, give entirely different conclusions (to different questions). Finally, we compare quantile regression estimates using real data examples, showing that UQR and QTE models differ sometimes but not always. Still, the conceptual and empirical distinctions between quantile regression models underline the need to match the correct model to the specific research questions. We conclude the paper with a few practical guidelines for researchers.


Historically Black Colleges and Universities (HBCUs) have a unique history, mission, and role in educating underrepresented and underserved students in the United States. In light of the recent uptick in institutional closures across sectors, understanding the factors associated with college survival for HBCUs is critical. Using linear probability models and data from the Integrated Postsecondary Data System from 1988–2017, we measure which institutional factors are associated with a greater likelihood that HBCUs will remain open when compared to institutions that closed. Findings indicate that institutions located in urban locales are more likely to continue operation when compared to rural institutions. Also, having remedial academic programs and greater spending on student services are associated with an increased likelihood of remaining open. Importantly, these are not the same factors associated with a higher rate of survival for Predominantly White Institutions (PWIs). We conclude by sharing the implications of this research for institutional policies in higher education.


La nouvelle plateforme MonMaster devient cette année le guichet unique pour les étudiants qui candidatent en master, dans un contexte où le processus de sélection à l’œuvre depuis 2016 exacerbe les inégalités économiques.

This paper explores how the educational and career paths of Indigenous people in STEMM have been impacted by ethical, cultural, and/or spiritual issues. Based on a survey of over 400 Indigenous students and professionals in STEMM fields, plus over 30 follow up interviews, we find that these issues cause some Indigenous people to leave particular fields altogether, others to avoid certain tasks within their chosen field, and still others to intentionally select particular fields. Ethical, cultural, and/or spiritual issues also are the reason some Indigenous people choose certain career paths, because of their desire to help their communities. By understanding these pathway impacts, STEMM leaders and educators can ensure more equitable pathways and can prepare, recruit, and retain Indigenous people in STEMM fields.


Performance-based funding models for higher education, which tie state support for institutions to performance on student outcomes, have proliferated in recent decades. Some states now tie most of their higher education appropriations to completion outcomes and include bonus payments for historically underrepresented groups to address equity gaps in postsecondary attainment. Using a Synthetic Control Method research design, we examine the heterogenous impact of these funding regimes in Tennessee and Ohio on completion outcomes for racially minoritized students and students from historically overrepresented racial groups. Across both states, we generally estimate null or negative effects on credentials conferred to racially minoritized students and null or positive effects on credentials conferred to students from historically overrepresented racial groups. As a result, we find that performance-based funding policies widened the racial gap in certificate completion in Tennessee and in baccalaureate degree completion in Ohio. Across both states, the estimated impacts on associate degree outcomes are also directionally consistent with performance-based funding exacerbating racial inequities in associate degree attainment.


In this longitudinal case study, Catherine Compton-Lilly and Margaret R. Hawkins explore one immigrant youth’s engagement with transglobal activities and flows of information and his emerging awareness of the world. Contending that transglobal flows create
learning opportunities that are rarely available to children raised in mononational and monocultural spaces, the authors add to scholarship that highlights the knowledge, awareness, understandings, and literacies that children in transglobal families bring to classrooms. Specifically, they examine twelve years of longitudinal data following the youth’s development of a critical cosmopolitan stance and then apply a transliteracies framework to analyze complementary facets of emergence, uptake, resonance, and scale implicated in transglobal relations and comparisons. The article closes with recommendations for educational practice.


This study employs a gendered relative resource approach to examine whether the importance of relative resources varies by couples’ household income in shaping changes in the gender division of labour after first birth. Scholarship has long argued that the gender division of labour within different-sex couples is influenced by partners’ relative resources. However, couples face class-based constraints that may alter the relevance of relative resources in shaping changes in gender divisions of labour following the transition to parenthood. This study compares couples’ paid work and housework before and up to four years after first birth, using 28 waves of the British Household Panel Survey and the UK Household Longitudinal Study (N = 1,606 couples). I find that the effect of relative resources on changes in couple’s paid work and housework behaviour after first birth varies substantially by household income. Among higher-income couples, women’s paid work and housework time changes less among those with high relative earnings and more among those with low relative earnings, while men’s time allocation varies little after first birth. In contrast, among low-income couples, women’s paid work time and share decreases most after first among female breadwinners while their male partners’ paid work time increases substantially. These findings reflect the greater constraints that low-income parents face in reconciling work and family and highlight the need for greater attention to class interactions in the process of gender specialization in both research and work-family policy.


Guided by a framework combining scholarship on critical consciousness and anti-racism in education, this narrative inquiry study sought to understand how practitioners within Gender and Sexuality Centers (GSCs) perceive their engagement with anti-racism. Centering the stories of 20 GSC professionals, findings revealed the racialized differences in practitioners’ motivations, how professionals conceptualized anti-racism actions as involving and extending beyond programming for people of color, as well as how they
engaged in reflection with themselves and others. We then offer implications for research and practice.


Social validity refers to the extent to which applied behavior analytic (ABA) treatment goals, methods, and/or outcomes are acceptable and meaningful to stakeholders. The aim of this conceptual paper is to suggest how social validity may be promoted during behavioral consultation in school systems and how the assessment of various aspects of social validity contributes to this throughout the consultation process. Literature pertaining to the concept of social validity, rapport-building, collaboration with stakeholders in behavioral school consultation, and the assessment of social validity are reviewed and synthesized. Social validity may be promoted in several domains: communication with consultees, collaborative selection of treatment methods and student objectives, consultee training, and measurement of outcomes meaningful to stakeholders. Social validity assessment can occur in all of these domains and is ideally a continuous process that informs all phases of consultation. There is a particular need for direct measurement of the social significance of behavioral consultation services. Social validity is integral to all aspects of the behavioral school consultation process, and it may be facilitated by incorporating valid social validity assessments into every stage of the consultation process.


In this research article, Leslie K. Finger and David M. Houston explore how different ideas about the objectives of education can influence families' schooling preferences and choices. For their study they employed a conjoint experiment embedded in an online survey to examine participants’ preferences for various school characteristics, including distance from home, academic performance as measured by test scores, and the racial/ethnic and economic makeup of the student body. Their evidence suggests a pattern of school choices that could contribute to racial/ethnic segregation.


No Spending without Representation: School Boards and the Racial Gap in Education Finance by Brett Fischer. Published in volume 15, issue 2, pages 198-235 of American Economic Journal: Economic Policy, May 2023, Abstract: This paper provides causal evidence that greater minority representation on sc...


This paper examines how histories of racism, slavery, and white supremacy continue to resonate in the present through the creation and curation of an audio compilation of student narratives. Grounded in posthuman theories, the sound compilation of layered student narratives offers a starting point for exploring the relational, embodied, and material web of affects that characterize the nomadic posthuman subject. This article takes up Braidotti’s call to question who ‘we’ are in this together, what it means for ‘us’ to negotiate the convergence of the present together when we are not one and the same. Through compiling and overlapping student voices, this article works to attend to the patterns and differences in their tellings as ethical and relational starting positions. The tracing of stories and threads of student voices in the audio compilation « puts to work » posthuman theory and offers possibilities for qualitative research methods grounded in posthuman theories.


This article examines the life stories of adults in Israel who were defined as ‘at-risk children’ in their childhood and removed from their homes by court order to therapeutic boarding schools against the backdrop of ‘inadequate parenting,’ ‘neglect,’ and/or ‘abuse.’ The findings reveal how graduates experienced their forced removal from the family home as a life event that shattered their phenomenological taken-for-granted knowledge. Graduates also reported a unique life story form of a biographical nadir (‘You can’t live lower than that’). This life story form also involves a constant reflexive engagement with ‘biographical noise’ expressed by the fear of ‘going backwards’ and the ongoing need to understand the parents’ decision in light of their living conditions. The article highlights
the unique characteristics of the graduates’ life story form, the subjective experience of multiple types of self-affiliated with different times, and the long-term ramifications of using the concept of risk.


An ethnic gap in education is prevalent around the world. This remains the case in Vietnam, a country that has achieved phenomenal economic growth and raised the educational attainment of the public. This paper examines the impact of language policy reorientation represented by the textbook supply program in Vietnam on the ethnic gap in children’s learning measured by a vocabulary test. Applying difference-in-differences estimation to the Young Lives data between 2006 and 2015, we show that the program became more effective in narrowing the ethnic gap as the education policy became reoriented toward ethnic minority children. A causal mediation analysis reveals that increased study time is possibly a moderate mediator through which the language policy reorientation helped narrow the ethnic gap for the young cohort over and above the direct impact, but this was not the case for the old cohort. This paper, therefore, alludes to the importance of delivering learning materials carefully designed for the target group to bring about meaningful behavioral changes. It also underscores the importance of teaching in the right context, corroborating the findings from recent studies on teaching at the right level.


Gender segregation in fields of study represents an important explanation for gender inequalities in the labor market, such as the gender wage gap. Research shows that horizontal gender segregation in higher education persists for a variety of reasons, including women’s greater communal goals and men’s greater motivation to earn high incomes. Yet with the male breadwinner model in decline, a key question is whether women’s motivation to earn high incomes might contribute to increasing women’s participation in female-atypical fields of study. Using data from the German Student Survey over a period of 30 years, our findings show that the proportion of women enrolled in female-atypical fields of study increased from 1984 to 2015. Moreover, women’s motivation to earn high incomes mediates the effect of time on enrollment in female-atypical fields of study. Their motivation to earn high incomes might thus be a factor contributing to the disruption of gender segregation in fields of study over time. Furthermore, contrary to expectations, the motivation to earn high incomes as a driving force for women to opt for gender-atypical fields of study is not stratified by social background.


Thanks to the male breadwinner model with wages sufficient to support a family, working-class families used to be financially secure. The transformation towards the adult worker model (AWM) saw an accumulation of adverse employment characteristics—especially among manual and non-manual routine occupations—and a rise in poverty risks. However, there is a lack of research that combines these strands. I ask to what extent male Western German workers and their partners’ ability to secure labour earnings that support a family has changed, and to what degree this was hampered by various adverse employment characteristics. Focusing on service and production workers with cohabiting partners, I analyse whether their individual and combined labour income is sufficient to support a family. Performing descriptive trend analysis and linear probability models with German Socio-Economic Panel data for 1985–2013, I compare class effects of four periods. I find that since the end of the 1990s, male service and production workers increasingly struggle to secure a family income—mainly driven by low wages and low work intensity, while partners’ labour market participation has gained relevance. The transformation towards the AWM coincided with a devaluation of the most privileged group among workers and thus the working class as a whole.


This article studies gender bias in early-stage academic evaluations in Italy and investigates whether this bias depends on various types of authorship in collaborative work across three academic fields: humanities, economics, and social sciences. We test our hypotheses via a factorial survey (vignette) experiment on a sample from the entire population of associate and full professors employed at Italian public universities in 2019. This is one of the few experiments conducted with university professors to consider hiring propensities in academia. Contrary to our general expectations, we do not find gender bias in relation to co-authorship in our general population of interest. However, the results provide some evidence that when the evaluator is a man, highly collaborative women academics in Italy receive less favourable evaluations of their qualifications compared to male colleagues with identical credentials. This gender bias is found in economics, a field where the conventions of co-authorship allow for greater uncertainty about individual contributions to a joint publication.


The presence of dual and ambivalent characters (good/ bad) has always constituted the aesthetic and educational content in children’s fairy tales. Since the Nineteenth century, fairy tales and children’s books have had as an essential reference increasingly complex images and illustrations with vivid colors. This, together with the narration, has allowed the flourishing of a genre of fairy tale noir, whose explicitly pedagogical content is grafted into the plots not always “to happy ending” of fairy tales. The book by Heinrich Hoffmann, Struwwelpeter, and that by Ernst Theodor Hoffmann, Der Sandmann, which are at the heart of this essay, constituted a first, important example of this new kind of narrative. They have revealed, from a pedagogical-psychoanalytic perspective, the value of what Freud in a 1919 paper, Das Unheimliche, analyzed as a necessary manifestation of presence/absence (conscious and unconscious) in the phases of human growth.
Thirty years ago, "Problems, process, and promise: Reflections on a collaborative approach to the solution of the minority teacher shortage" (Goodwin, 1991) offered a perspective on an approach to the minority teacher shortage. That piece represented the start of the author's life-long work on teacher preparation, with a particular focus on the recruitment and retention of teachers of color in response to growing numbers of students of color juxtaposed against a predominantly white teaching force. Now, several decades later, this article is her opportunity to reflect on those early thoughts, framed by the question: What progress have we made (or not) as a profession, and a society, in addressing this imperative? In pondering this question, this piece returns to the focus of the original article to think anew about problems, process, and promise as conceptual lenses for assessing how far we have come and where we now need to go.

We provide evidence from a randomized controlled trial on the effectiveness of a novel, 100-percent online math tutoring program, targeted at secondary school students from highly disadvantaged neighborhoods. The intensive, eight-week-long program was delivered by qualified math teachers in groups of two students during after-school hours. The intervention significantly increased standardized test scores (+0.26 SD) and end-of-year math grades (+0.48 SD), while reducing the probability of repeating the school year. The intervention also raised aspirations, as well as self-reported effort at school.

Linked administrative data on education, health, social services, and crime from British Columbia, Canada, are used to document the relationship between measures of secondary educational attainment and indicators of poor outcomes later in life. Poor outcomes are seen to manifest primarily among high school dropouts. Next, we document the ability of characteristics observed in administrative data in grade 4 to predict high school graduation using a very simple model. It is straightforward to identify more than one fifth of future dropouts reasonably accurately. Non-cognitive measures (esp. social and emotional characteristics) are better predictors of educational attainment than cognitive ones. We discuss the implications of these findings for a scientific approach for developing interventions to prevent poor outcomes later in life.

Cette recherche doctorale a pour but d’étudier l’implication parentale et les stratégies déployées par les parents immigrés musulmans en lien avec l’expérience socioscolaire
de leurs enfants. Plus précisément, elle vise à documenter en profondeur l’exercice de la parentalité, en rétrospective et en projection, chez les familles musulmanes établies à Montréal. Notre problématisation a fait le survol de recherches significatives portant sur la situation socioscolaire des élèves immigrés dans divers contextes nationaux, notamment au Québec et dans sa métropole, et sur les relations familles immigrantes-écoles. Ce survol a permis d’assoir la pertinence scientifique et sociale de s’intéresser au cas spécifique des élèves immigrés musulmans et de leur famille. En quête d’un éclairage théorique permettant de lire finement les enjeux soulevés par la problématisation, nous avons opté pour une conceptualisation multifocale s’intéressant à l’acculturation, à la mobilisation familiale autour des enjeux scolaires et à l’expérience socioscolaire de l’élève. Avec une approche méthodologique qualitative, nous avons mené 35 entretiens individuels approfondis à caractère biographique avec des duos parents-enfants en provenance de dix pays d’origine différents, résidant dans la grande région métropolitaine de Montréal, et huit entrevues semi-dirigées auprès d’intervenants communautaires et de professionnels. Le croisement des données des trois groupes de sujets a révélé la place particulièrement significative qu’occupent les parents musulmans dans l’expérience socioscolaire de leurs enfants en dépit des multiples défis auxquels ces derniers font face. Possédant divers acquis et expériences, confrontées à de nombreuses contraintes, ruptures et virages, les familles musulmanes rencontrées construisent, dans le changement, un répertoire riche de stratégies parentales en lien avec la scolarité ou la socialisation de leurs enfants. Par ailleurs, nos résultats montrent un écart significatif qui caractérise les stratégies tant originales que créatives déployées par les parents musulmans et leur invisibilité aux yeux de l’école étant donné qu’elles se déploient parfois dans l’intimité du milieu familial ou dans divers contextes de la communauté. De plus, nos résultats illustrent la variabilité des modalités d’interaction des parents musulmans rencontrés avec le milieu scolaire, y compris lorsqu’ils sont, parfois, en retrait ou aux marges des murs de l’école. En effet, de par leur appartenance à un groupe minorisé et racisé dans leur pays d’accueil, les parents musulmans sont susceptibles d’endosser des stigmates et des discriminations systémiques dans certaines écoles où sont inscrits leurs enfants qui se manifestent, dans certains cas, sous forme de comportements visibles et se déclinent, dans d’autres cas, à travers des attitudes camouflées, invisibles, enrobées de préjugés, de regards méfiants ou de froideur. De ce fait, si la distance de quelques-uns les rend invisibles à priori au regard des normes et des attentes de l’école québécoise, nos données révèlent que nombreuses sont les familles musulmanes qui sont grandement impliquées dans l’expérience socioscolaire de leurs enfants en ayant peu ou pas de relations directes avec l’institution scolaire. L’analyse de nos données a révélé aussi des processus interactionnels pour les jeunes musulmans qui vivent dans certains cas une expérience socioscolaire positive soutenue par leur projection d’avenir ou par un milieu tiers, notamment le milieu familial, scolaire ou communautaire et marquée dans d’autres cas par de nombreuses vulnérabilités. Cette expérience est marquée aussi par divers enjeux de transition : la transition du pays d’origine vers le pays d’accueil, la transition de l’école du pays d’origine vers l’école québécoise, la transition des classes d’accueil vers le régulier et la transition primaire-secondaire. Dans cette optique, notre étude invite le milieu scolaire à considérer l’expérience socioscolaire des élèves musulmans d’une façon plus large afin d’atténuer l’impact de ces moments de ruptures et de discontinuités auxquels ils font face. Ces considérations doivent aussi inclure leurs expériences (pré) migratoires et leurs histoires familiales. Le croisement de regard des trois groupes de sujets a permis de surcroît d’identifier les besoins des parents musulmans ainsi que les pratiques gagnantes de soutien et d’accompagnement de ces parents à
l’école québécoise. D’une manière générale, des recommandations pertinentes pour les milieux de pratique ont été formulées qui convergent vers la pertinence de favoriser la création de relations familles musulmanes-écoles ancrées dans une optique de partenariat. Dans la perspective fondamentale du vivre-ensemble, notre recherche invite aussi le milieu scolaire à s’intéresser à la réalité des familles musulmanes afin d’intervenir plus efficacement auprès de parents et enfants. Il semble que cette connaissance de l’école et de ses acteurs scolaires des réalités et des difficultés qu’endurent certains musulmans au Québec soit un levier à l’émergence de relations familles musulmanes-écoles harmonieuses. Enfin, l’effectivité du vivre-ensemble dépend de tous, acteurs scolaires et parents. Cependant, l’école doit faire preuve de leadership dans l’instauration d’un climat d’ouverture à la communauté qu’elle dessert.


Using nonlinear decomposition, this study examines the gap in high school enrollment between native and immigrant children based on data from the 2010 Population Census. The school attendance probability of immigrant children is significantly lower than that of native children. Factors contributing to the gap are the length of stay in Japan, parental employment status, and home ownership. The total explained part of all observable factors is approximately 30% in the comparison between native and immigrant children whose parents are both foreigners. Furthermore, immigrant children who do not attend high school are more likely to be unemployed.


In this historical inquiry, Belén Hernando-Lloréns uses the case of one young Spanish woman who was suspended for wearing a hijab to school to argue that norms of convivencia in culturally and racially diverse educational spaces work as a practice of abjection that excludes in the name of inclusion. She examines three strategies that made this girl’s veiling an issue of public safety: problematizing Muslim girls’ veiled bodies, normalizing what the responsible female citizen’s body looks like, and pathologizing the desire to veil. This inquiry, which is based on the analysis of policy and law, media, and educational research, contends that norms of convivencia in education carry embedded notions of a salvationist agenda that other and exclude those who deviate from normative, liberal images of a responsible personhood.


Previous studies have shown that women suffer less from unemployment than men in terms of subjective well-being. However, there is little research that aims to test possible explanations for this gender-specific reaction. We distinguish two different ways in which unemployment reduces well-being, namely the financial and non-financial effects of becoming unemployed. Gender differences in both types could explain the different effects on the well-being of women and men. Using the German Socio-Economic Panel, we analyse why women are less affected by unemployment than men. Applying fixed-effects panel regressions, we find substantially smaller negative effects for women, but
this can only to a small extent be explained by different financial effects. To test the relevance of non-financial effects, we investigate how gender differences vary between subgroups, for which the non-financial effects should differ. Our analyses show that gender differences are more pronounced both among people who were socialized in West Germany compared to East Germany and among parents compared to singles. Moreover, differences in labour market attachment prior to the transition to unemployment explain a large share of the gender gap. These findings support the assumption that non-financial effects are responsible for the weaker consequences of unemployment among women.


While a range of sociodemographic characteristics are associated with a greater risk of peer rejection at school, it is currently unclear how key theoretical frameworks explaining rejection apply to such characteristics. This study examines how migration background, gender, household income, parental education and cognitive ability are linked to peer rejection. Building on person-group dissimilarity and social identity theory, the study assesses the moderating role of classroom composition and the extent to which students reject classmates who differ to themselves (i.e., outgroup derogation). Data is drawn from a nationally representative sample of 4215 Swedish eighth grade students (Mage = 14.7, SDage = 0.39; 67% of Swedish origin; 51% girls) in 201 classes. While rejection based on migration background, gender, household income and cognitive ability was moderated by the school-class composition, only the rejection of immigrant background students, boys and girls was related to outgroup derogation. Furthermore, Swedish origin students' outgroup derogation increased as the share of immigrant background students decreased. Addressing social inequalities in rejection may require different strategies depending on sociodemographic characteristic.


Small group social skills training (SST) is recommended to improve the social behavior and peer relations of rejected children, but child responses vary. This study explored variation in intervention experiences that emerged in a large study of a school-based SST program for peer-rejected children and associations with program outcomes. One hundred and seven peer-rejected elementary students (60% White, 15% Black, 22% Latinx, 3% Multi-racial, and 65% male) were identified by classroom sociometrics and randomly assigned to a year-long small group SST program. Normative classmates served as partners. Among the peer-rejected targets of the intervention, those with relatively better pretreatment social skills received more SST sessions and were more positively engaged, whereas those with fewer social skills and more behavior problems experienced more negative peer responses during SST sessions and less collateral support from teachers and parents. Hierarchical regressions (controlling for pretreatment scores) revealed attenuated intervention benefits for children who received more negative peer responses during SST and less parent and teacher support. The findings suggest that, within a sample of peer-rejected children, those with more severe skill deficits and elevated behavior problems at pretreatment have lower-quality SST experiences that
reduce intervention benefits, even when normative classmates serve as peer partners. These issues warrant careful attention in future SST intervention design and research.


Some scholars hypothesize that although work–family policies help incorporate women into the labour market, they do so by integrating women, and mothers specifically, into female-dominated occupations. Some suggest that although these policies are ‘good’ for lower educated women, they harm higher educated women by concentrating them in female-dominated professions. We revisit this debate using the highest quality data brought to bear on this question to date. We use the EU Labour Force Survey 1999–2016 (n = 21 countries, 235 country-years, 2.5 million men and women aged 20–44), combined with an original collection of country-year indicators. Specifically, we examine how the two most widely studied work–family policies—paid parental leave and early childhood education and care (ECEC)—and public sector size affect occupational segregation for men and women by educational attainment and parental status. We find no evidence that ‘generous’ welfare states promote segregation. Rather, a specific policy—parental leave in excess of 9 months—promotes segregation between men and women broadly, but most acutely for non-tertiary-educated mothers. Findings are generally null for paid leave of up to 9 months. ECEC is associated with greater integration, particularly for tertiary-educated women. Large public sectors are associated with segregation, with both tertiary-educated men and women more likely to work in feminized occupations. Public sector size, however, is not as tightly bundled with work–family policies as previous work suggests.


La mobilité sociale désigne l’ensemble des situations pour lesquelles la personne enquêtée et le parent auquel elle est comparée relèvent de catégories socioprofessionnelles différentes.


In this article, the authors examine the experiences that contribute to the delayed completion of doctoral programs among Black women. Building upon prevailing applications of doctoral student socialization, this study explores the ways race and gender intersect to shape the graduate school experiences of Black women pursuing EdD and PhD degrees. Semi-structured interviews with current graduate students and doctoral degree recipients reveal that the intersecting identities held by Black women are largely ignored during interactions with graduate faculty and peers, complicating the graduate school socialization process. Gendered priorities constrained time available to dedicate to studies, particularly during the writing stage. Black women described efforts to navigate dominant culture communication styles and the necessity to create networks of their own to overcome these challenges and move towards degree attainment. Implications for institutional policy and practice are shared.

Framed by MCDA, our study examines diachronic changes in gender representation in five New Headway Elementary (NHE) editions. Our findings demonstrate that NHE’s gender representation is established on heteronormative binaries indicating bias against women in recreational, domestic, professional, and educational spaces despite few important attempts by the coursebook writers to address gender bias. Gender representation in recreational spaces is built on stereotypical discourses. At home, women mostly have nurturing roles while men are depicted as relaxing or playing with their children. At work, men’s professional representation focuses solely on their professional career, whereas women are represented with reference to their domestic and caregiving roles. At school, men are presented as teaching and learning various subjects and sports, while women are mostly associated with teaching and learning languages and art only. In closing, we offer teachers three activities to develop learners’ critical awareness against gender discrimination while using NHE.


In the wake of racial justice protests in the United States, many states adopted policies to constrain the discussion of racism, particularly contemporary and systemic racism, in K-12 classrooms. Discursively framed as “critical race theory bans,” these policies enumerate lists of “prohibited concepts” to be eliminated from classroom instruction and curriculum materials. This brief document analysis provides an overview of first-wave prohibited concepts policies among the states to adopt such policies during the 2020-2022 legislative sessions. The analysis summarizes the prohibited concepts, teaching practices that remain allowed, and the nature of the prohibitions.


This brief describes how several commonly used per-pupil funding measures derived from federal data include passthrough funding in the numerator but exclude students attached to this funding from the denominator, artificially inflating per-pupil ratios. Three forms of passthrough funding for students not educated by the school district where they reside are included in district-level funding totals: payments to private schools (V91), payments to charter schools (V92), and payments to other school systems (Q11). We illustrate this error in Pennsylvania and New Jersey and use data from all 46 impacted states to show how racial and economic funding gaps are understated as a result.


Despite gender similarity in math ability, studies show persistent gender differences in STEM aspirations among adolescents. Extending previous literature on student math ability, biased self-assessment, and gender stereotypes, this paper emphasizes on the important process of social comparison in producing gender disparities in STEM aspirations. In particular, we examine the crucial role of relative ability, or a student’s ordinal ability rank within their peer group, and its interaction with the gender-math
stereotypical environment. Using unique information on random classroom assignments from the China Educational Panel Survey (CEPS), we are able to exploit idiosyncratic variation in classmate composition to identify the effect of ability rank on student STEM aspirations and the moderating role of student exposure to gender-math stereotype. We show that after controlling for absolute cognitive ability, the effect of a student’s ability rank on STEM aspirations differs by gender, with girls benefiting less relative to boys from a higher ability rank in class. Moreover, this gender difference in the effect of ability rank on STEM aspirations is larger among students who are exposed to a higher level of gender-math stereotype from classmates. We discuss the theoretical and empirical implications of our findings.


Stereotype threat (ST) is a potential explanation for inequalities in language competencies observed between students from different language backgrounds. Language competencies are an important prerequisite for educational success, wherefore the significance for investigation arises. While ST effects on achievement are empirically well documented, little is known about whether ST also impairs learning. Thus, we investigated vocabulary learning in language minority elementary school students, also searching for potential moderators. In a pre-post design, 240 fourth-grade students in Germany who were on average 10 years old (MAge = 9.92, SD = 0.64; 49.8% female) were randomly assigned to one of four experimental conditions: implicit ST, explicit ST without threat removal before posttest, explicit ST with threat removal before posttest, and a control group. Results showed that learning difficult vocabulary from reading two narrative texts was unaffected by ST. Neither students’ identification with their culture of residence and culture of origin nor stereotyped domain of reading were moderators. The findings are discussed with regard to content and methodological aspects such that a motivation effect might have undermined a possible ST effect. Implications for future research include examining the question at what age children become susceptible to ST and whether students have internalized negative stereotypes about their own group, which could increase the likelihood of ST effects occurring.


This study applied a bibliometric approach to a dataset of publications on women and educational leadership to critically explore the nature of research in the field and the utility of the bibliometric method in its mapping. The analysis was conducted on bibliographic records of 823 papers on women and educational leadership published from 1975 to 2020, which had been retrieved from the Web of Science. The results are presented in the form of lists of most impactful papers; most productive research centres/organizations and countries; similar lists of contributing disciplines and publication venues; as well as maps visualizing collaborative activity. A postcolonial feminist perspective used in interpretation of the results reveals that, on the one hand, the approach makes it possible to uncover the persistent coloniality and linguistic hegemony in the field, whereas, on the other hand, bibliometric metrification may contribute to Western epistemic violence and valorisation of scholarship in masculinist terms.


While activists and scholars have interrogated the problem of campus sexual assault, studies have yet to understand its effects on faculty labor. In this analytical essay, Stephanie R. Larson expands studies of campus sexual violence by addressing how ineffective reporting procedures and inadequate mechanisms of response have consequences for minoritized faculty that are not acknowledged by their institutions. Drawing on interview data with twenty humanities faculty members across a range of disciplines, ranks, and types of institutions, she analyzes how the invisible labor around reporting and responding to sexual violence creates a hostile work environment and ultimately exacerbates inequalities in higher education, illustrating how individuals who identify as women, people of color, and/or queer are especially subject to this additional labor. The essay concludes with implications for curriculum, policy, and advocacy.


Past research on occupational choices often focuses on the role of personal attributes. Research is needed that examines whether daily environments and individuals’ reactivity to these environments contribute to occupational choices. This study utilizes experience sampling methodology to examine whether daily sexism and affective reactivity to sexism predict the gender typicality of desired occupations of emerging adults in male-dominated majors (MDMs). 40 women and 40 men college students in MDMs reported desired occupations and experiences of sexism and general mood during the past hour four times a day for 2 weeks – allowing for an examination of whether some individuals report a more negative mood when they recently experienced sexism (i.e., reactivity). Results indicated that higher reactivity to sexism (but not daily sexism) predicted women desiring more female-typed and men desiring more male-typed occupations. Results suggest that career counselors should consider the role of daily sexism in career development.

This article responds to scholarly calls to engage with diaspora in the context of transnational educational mobilities in global higher education. It maintains that transnational academic mobilities produce a particular kind of academic diaspora, that is often valued by both home and host countries but in ways that vary and serve different interests and aspirations. While the contrasting perspectives on brain circulation and brain drain persist, what this article argues is that systemic inequalities are (re)produced through the processes of transnational academic mobilities, which privilege the mobility of some and not others, and at the same time under-value the home-grown academics and overseas-trained academics that return home. The current diaspora politics is located within this complex, hierarchical, and dynamic cultural, political and economic space. In particular, it pinpoints how the promoted desirability of diasporic brains and talents in policy and practice has continued to reproduce and consolidate academic inequalities. The article then argues for place-based/at home transnationality, seeing it as productive counter position to help reduce inequalities. The article employs self-study research and is informed by a bricolage of data on Vietnam and its Vietnamese transnational academic diasporas gathered at different points in time and in different contexts.


This article explores the issue of workplace visibility and signs and symbols of LGBTQ+ identity in a UK university. A poststructuralist Butlerian theoretical framework underpins this article. Sexual and gender identities are understood as multiple and fragmented, and constructed in relation to others and within the systems of power and knowledge that exist in universities and society more widely. An anonymous survey and focus group discussions were conducted with LGBTQ+ staff in a higher education institution in England awarded university status in 1992. Results showed that staff felt relatively comfortable coming out to their peer-groups in the workplace but were less confident in coming out to students. Signs and symbols of LGBTQ+ identities were fundamentally important to LGBTQ+ staff members in helping them feel safe in the workplace and indicating to LGBTQ+ students that they were potentially a source of support. The visibility of LGBTQ+ senior leaders was important in empowering staff to believe that they too might progress within the university.


This study estimates the average multivalued treatment effects (ATET), of preschool attendance measured in years, on students’ international reading, math and science test z-scores in Grade 4. The causal treatment effects come from multiple-years observational data on three levels of preschool duration before entering Grade 1. Among European countries that participated in five international education surveys,
PIRLS (2006, 2011, 2016) and TIMSS (2015, 2019), those renowned for having adopted early childhood education (ECE) programs starting at a young age, growing in intensity and improving the number of qualified child-care providers were selected. In addition to four Nordic countries (Denmark, Finland, Norway, Sweden), France, two Belgium jurisdictions (French, Flemish), and two participating Canadian provinces, Ontario and Québec, were retained. The approach exploits the repeated surveys and cross-national comparative international z-scores tests. The data sets besides their test scores provide unique information from a parent questionnaire on their education and occupation levels, literacy and numeracy preschool activities, on child preschool educational childcare span in years and two program types (for some years; before and after age 3). Four key findings can be identified from the data sets and estimations. First, there are large differences in the average scale score and percentiles deviation when converted into the z-score metric, for all categories of test scores across jurisdiction participants, and over time. Second, the estimates of the preschool treatment effects display rather heterogeneous impacts on z-scores with increasing significant and positive achievements over year surveys. Third, in general, preschool treatment effects are scattered in function of duration, programs types, and parental education. Four, results highlight stark gaps in scores related to parental education, socioeconomic statuses, and home learning resources for all year-samples. Evidence from a diversity of estimated gradients suggests established social inequalities in education achievement at ages 9-10 in Grade 4 could be difficult to reverse, even in cases where preschool education and care are implemented at a very young age in rich countries with very generous family policies.


Lieux emblématiques de l’industrie textile dans le nord de la France, Roubaix et Tourcoing disposent de longue date d’institutions de formation pour le personnel d’encadrement. Depuis les années 1940, le patronat local a cependant cherché à promouvoir un apprentissage à mi-temps grâce à des centres d’apprentissage gérés collectivement par les entreprises et formant à différents métiers du textile. Avant la législation de 1971 qui cherche à relancer l’apprentissage en France, les dossiers d’apprenties conservés permettent de connaître les parcours de jeunes filles qui restent à l’écart de l’ouverture des horizons scolaires et professionnels que connaît la génération des adolescents des années 1950 et 1960. Dans ces dossiers apparaissent les choix et les décisions d’orientation qui associent ces jeunes filles, leur famille, les institutions d’orientation et les employeurs, ainsi que les jugements portés sur leur formation et leur insertion professionnelles, empreints de normes professionnelles et de stéréotypes sur les qualités féminines.


The last several decades have seen a growth in scholarship and application of culturally responsive and sustaining educational (CRSE) approaches in schools serving youth of color. A growing body of research has shown how CRSE serves as an effective strategy to engage students of color, combat pernicious stereotypes, and improve academic
outcomes. Notwithstanding these important contributions, CRSE scholarship and practice have not fully explored the significance of social class, despite its long-standing correlation with academic performance, deep connections to identity, and relationship to race and racialization. Drawing on lessons gleaned from ethnographic research, which has demonstrated the importance of social-class analyses, this essay calls for a greater emphasis on and recognition of class in CRSE methods and application. As one of the most prominent and useful sets of pedagogical strategies used in education today, CRSE stands to benefit from a wider inclusion of social class, an addition that would have important ramifications for practitioners and scholars seeking to effectively educate historically marginalized populations. A deeper understanding of the significance of class could also help educators and scholars avoid perpetuating pernicious cultural stereotypes, such as the model minority myth and the culture of poverty. However, a class-conscious addition to CRSE must also maintain its anti-deficit perspective to avoid essentialist views about working-class youth.


This study explores how blended classroom teaching (the integration of online courses with face-to-face instructions) equalizes educational outcomes across regions. We point out that besides the medium function, ICT can also transmit educational resources across regions, and the resource transmission function facilitates the equalization of educational inequality across regions. Specifically, the model illustrates that blended classroom teaching transmits educational resources and increases the teaching resources in the underdeveloped regions. Thus, the number of high school graduates increases with more human capital from teaching services and less from student endowment; the investigation of 24 million high school students in 31 regions in China from 2013 to 2019 reveal substantial differences in the graduation rates between developed regions and underdeveloped regions, but the gap narrows significantly along with the fast increase of network multimedia classrooms; and the regression analyses find the number of high school graduates is significantly positively associated with network multimedia classrooms in underdeveloped regions, and with teachers in senior ranks in developed regions. All the findings are consistent with the model predictions.


In higher education institutions, critical race theory (CRT) is known to be associated with fields that study racial disparities or systemic oppression such as law, education, and ethnic studies. The impression that CRT is unrelated to fields like business or computer science may have led scholars and practitioners from these disciplines to put their focus on elsewhere than on racial inequality and its implication in their research and practice, despite apparent need. To counter such fallacy, this review article—focusing primarily on the US context—discusses CRT literature in fields where its presence is less known which are nevertheless among the major domains of higher education institutions: health sciences, computer science and information technology, sports, business, and religion. By discussing example research of how scholars have utilized CRT in different fields to challenge the race-neutral thinking that often obscures structural racism, this paper exposes racism’s ability to alter manifestations and to appear through various shapes.
and forms within the higher education context. Initial recommendations on how educators may engage in further discussions or actions will also be considered. This paper concludes that racist ideologies are often hidden behind discipline-specific vocabulary or technical language, and it is by tackling the ideologies at work underneath the technicalities can we address the chameleon-like nature of racism more effectively.


Background Everyday digital technologies play an important role in mediating human activity that is socio-political and humanizing. The everyday cyborg engages in speculative fabulation that is about fantastical new world-making in times of multiple crises. The work presented in this article builds on previous projects that have examined how everyday cultural practices mediate consequential learning that is transformative for communities of color.

Methods Two social design-based studies draw from ethnographic analysis of two teacher education courses as well as two after-school programs focusing on digital fabrication and making and tinkering. Participants included 22 undergraduate pre-service teachers and 10 middle school students from schools in Latinx communities.

Findings Collaborative cyborg activity, where expertise is distributed, emerged as pre-service teachers and youth collectively engaged with everyday socio-political issues. This article highlights cyborg sociopolitical technical reconfigurations, where learners assembled ideational and material tools to craft objects of learning activity that went beyond those established by schooling and imagined new possible futures.

Contribution Designing learning ecologies for the everyday cyborg, in this case pre-service teachers and non-dominant youth, fosters an engagement with everyday dilemmas in ways that serve as catalysts for further learning and the new world-making of speculative fabulation.


Dans les années 1960, la Jeunesse ouvrière chrétienne (JOC) réalise une série d’enquêtes sur les conditions de travail, de formation ou d’orientation professionnelle des jeunes de milieu populaire. L’article met en lumière l’intérêt de ces enquêtes pour comprendre le rapport des jeunes au travail et à la formation. Outre les archives qui permettent de saisir la constitution des savoirs, le travail militant qui accompagne les enquêtes laisse aussi entendre la parole des jeunes enquêtés. Pour les jeunes de milieu populaire, l’aspiration à la poursuite d’étude ne se dirige pas encore vers le baccalauréat et la demande de formation se concentre sur l’enseignement technique, dont une véritable formation professionnelle est attendue.


Education is perceived to have a positive impact on a variety of health outcomes. However, it is unclear how causal this association is or what could account for the observed relationship, especially in low-income countries. This study examined the educational gradient in dietary diversity among young women using individual-level survey data from Zimbabwe. A parametric fuzzy regression discontinuity design was used in the empirical analysis, with school reform exposure serving as an instrumental variable
for educational attainment. The results show that increased schooling improves dietary diversity among women and that this effect is large and statistically significant. An examination of the potential mechanisms by which education improves dietary diversity revealed that women with more education are more likely to engage with print media by reading newspapers or magazines, to be literate, to access prenatal care when pregnant, to be wealthier, to have fewer children, and to live in metropolitan areas. These findings suggest that expanding educational opportunities, particularly for young girls in developing countries like Zimbabwe, could be a useful policy strategy to promote healthy eating among young women and, as a result, could enhance population health and nutrition outcomes.


From 2020, the long-standing debate regarding the English national curriculum’s capacity to discuss issues of ethnicity and race escalated. The history subject curriculum particularly is seen as excluding ethnic minorities from an ‘Island Story’ often depicting a White Anglocentric identity disassociated with the wider world. In 2021, the Commission on Race and Ethnic Disparities report declared that secondary school education must play a central role in augmenting social inclusion and shaping future citizens. The government’s current position for increasing inclusion places responsibility at the feet of teachers and schools. It is claimed by government that the curriculum’s flexibility and broadness provide opportunity to inject more diversity to what is taught, thereby meeting any demands for inclusivity. Yet the 2021 Historical Association survey emphasised a need amongst teachers for greater support despite making great efforts to diversify the curriculum. This position paper argues that making the British Empire a compulsory topic within the English history curriculum provides a ready-made vehicle for enhancing diversity and inclusion. Bolstered by global history’s methodology of relying on multiple viewpoints, together they would decentre the history curriculum’s insular potential to offer a diverse, inclusive, modern global perspective of Britain’s ‘Island Story’.


This paper draws from a critical race multicase study of Black parents’ school engagement experiences in a liberal U.S. public school district, focusing here on 12 mothers and fathers who participated in Parent Teacher Organizations (PTOs) and/or African American parent groups. I apply Critical Race Theory, particularly Crenshaw’s notions of restrictive and expansive views of antidiscrimination law, as a theoretical lens to evaluate the school district’s vision of racial equality in school governance. My analysis indicates that regardless of inclusive practices that welcomed Black parents into parent groups, the district still had restrictive views of equality because Black parents’ ideas and desires were only taken up if they converged with the interests of white parents, and school and district leaders. I offer the theorization of still-restrictive to point to a way white supremacy may still operate in liberal and inclusive-seeming spaces.
Access to education is the first step to benefiting from it. Although cumulative online learning experience is linked to academic learning gains, between-country inequalities mean that large populations are prevented from accumulating such experience. Low-and-middle-income countries are affected by disadvantages in infrastructure such as internet access and uncontextualised learning content, and parents who are less available and less well-resourced than in high-income countries. COVID-19 has exacerbated the global inequalities, with girls affected more than boys in these regions. Therefore, the present research mined online learning data to identify features that are important for access to online learning. Data mining of 54,842,787 initial (random subsample n = 5000) data points from one online learning platform was conducted by partnering theory with data in model development. Following examination of a theory-led machine learning model, a data-led approach was taken to reach a final model. The final model was used to derive Shapley values for feature importance. As expected, country differences, gender, and COVID-19 were important features in access to online learning. The data-led model development resulted in additional insights not examined in the initial, theory-led model: namely, the importance of Math ability, year of birth, session difficulty level, month of birth, and time taken to complete a session.


Describes the paths to the Ph.D. and the subsequent careers of the first 15 women to earn Ph.D.s from the University of California. It covers: Milicent Washburn Shinn (1898), Jessica Blanche Peixotto (1900), Alice Robertson (1902), Edna Earl Watson Bailey (1910), Annie Dale Biddle Andrews (1911), Myrtle Elizabeth Johnson (1912), Lillian Ruth Matthews (1912), Emma Phoebe Waterman Haas (1913), Anna Estelle Glancy (1913), Frances Lytle Gillepsie (1914), Rosalind Wulzen (1914), Olga Louise Bridgman (1915), Helen Margaret Gillkey (1915), Olive Swezy (1915), Irene Agnes McCulloch (1916).


This article is based on findings from my doctoral dissertation that investigated the narratives of former short-term study abroad (3–4 weeks) participants after they had settled back in their home country for one to two years. The theme of sexuality, as it relates to the intercultural journey of study abroad, was a prominent theme that arose from the narratives of one of the participants and continued 2 years after the participant had returned home and began to interact in their home country environments. There is a dearth of research on how the narrative of sexuality can inform the journey abroad and after the participant returns to their home country. Therefore, it is important to employ narrative and Queer methodologies in the study abroad research to explore issues related to sexuality. Employing such methodologies will help increase reflection in study abroad programs and will diversify the research and the curriculum to include other groups of students that are often underrepresented in the study abroad research.

Mothers' longer time out of the labour market due to parental leave has been proposed as one of the main determinants of the gender pay gap. This study focuses on the mechanisms behind the gendered division of care after entering parenthood. By comparing paid parental leave use of biological parents (where mothers gave birth) to adoptive parents (where they did not), we assess to what extent the unequal division of care can be explained by physiological aspects of motherhood or if other explanations, like gender norms or financial motives, can explain these differences. We analyse Swedish register data from 1994 to 2009 on couples whose first child was biological (N = 114,479) or adopted (N = 5,467) (between-family comparisons) and for families who had both adopted and biological children (within-family comparisons; N = 1,033). We find highly similar patterns in the division, length, and timing of parental leave for biological and adoptive children. Both biological and adoptive mothers take the majority of leave (78–82 per cent), the longest leave, and the first leave period. We conclude that persistent norms of mothers as caregivers/homemakers and fathers as breadwinners shape parents' use of parental leave to a greater extent than factors related to biological motherhood or financial motives.


Les établissements d’enseignement privé contribuent fortement à la ségrégation scolaire, qui varie fortement d’une localité à une autre. Lutter en faveur de la mixité implique de s’adapter aux particularités locales. L’enseignement privé et la ségrégation scolaire L’enseignement privé est régulièrement mis en cause dans le débat sur la ségrégation scolaire. Financé à hauteur de 73% sur fonds publics pour les établissements sous contrat, il échappe à la sectorisation scolaire et plus largement à des objectifs de (...)
82 % des personnes pauvres n'ont pas dépassé le bac et près d'un tiers n'ont pas du tout de diplôme. Le taux de pauvreté des personnes sans diplôme est deux fois supérieur à celui des bac + 3.

Le chômage diminue depuis 2016, y compris pour les catégories les plus touchées : les ouvriers, les jeunes, les moins diplômés. Les inégalités restent fortes, mais les écarts se réduisent.

Les immigrés et leurs descendants sont plus touchés par le chômage que le reste de la population active. À niveau de diplôme, catégorie sociale et âge comparables, les actifs originaires d’Afrique ont un risque près de deux fois plus élevé d’être sans emploi que les personnes sans histoire migratoire.

Around a third of U.S. school districts mention the importance of diversity, equity and inclusion in their mission statements. But these references are far more common in parts of the country won by Joe Biden in 2020 than in areas won by Donald Trump.

Textbooks are one of the areas in which gender inequality is institutionalized effortlessly. The study investigated the representation of gender in primary and secondary English textbooks. A total of 14 categories of underrepresentation and misrepresentation were used to examine gender portrayal. The results show that women are significantly underrepresented whilst men are overrepresented in text and illustrations. Female names account for only 30.4% of names in textbooks. Male characters precede female characters in most coordinated phrases, and most of the dialogues are initiated by men. Masculine generic forms are used to refer to women and men including in the English translation of the Afghanistan National Anthem. Men are more frequently portrayed in a myriad of social roles than women are. Surprisingly, this pattern also holds true for domestic roles. Furthermore, little space is dedicated to female famous persons (e.g., scientists), and women constitute a tiny fraction of the main characters of articles and stories, most of which were about trivial matters (e.g., cooking). They are portrayed in a small number of activities, almost a quarter of which are house-related tasks.

Instructional materials are one of the areas in which gender inequality is very easily institutionalised. The study investigated gender representation in high school English textbooks in Afghanistan. High school English textbooks were used as the corpus of the study. A mixed content analysis approach was used to analyse the data. The frequency of items for each category was counted and tabulated. The findings showed that women were substantially underrepresented whereas men were significantly overrepresented in text and illustrations. Male characters were placed before female characters in all coordinated phrases, and none of the dialogues was initiated by female characters. Women were portrayed in a limited number of social roles while men occupied a wide range of them. Moreover, masculine generic forms were widely used to refer to both women and men. Thus, it is concluded that high school English textbooks promote and perpetuate gender inequality in Afghanistan.

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Despite Latinxs steadily rising in number among the U.S. population, these students have been systematically excluded from the study of intercollegiate athletics. Guided by Yosso’s (2005) Community Cultural Wealth model, this qualitative study explored the recruitment experiences of 12 National Collegiate Athletic Association (NCAA) Division I Latinx college athletes. Through one-on-one interviews, this study sought to examine the pathways for Latinx college athletes to NCAA Division I institutions. The study unveiled three themes: (1) coach empowerment, (2) familial support, and (3) athletic networking. The findings depicted that the chances to become recruited to an NCAA Division I institution are not equal for Latinx high school students. Rather, those who possessed certain capital were more likely to navigate the recruitment maze and secure themselves a spot on an NCAA roster. The article concludes with recommendations for academic and athletic stakeholders.

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Ethnic-racial socialization has primarily been examined as a unidirectional, caregiver-directed process. Instead, applying the Theory of Racial Socialization in Action (Smith-Bynum, 2023), the current study observed caregiver-youth conversations about a hypothetical discriminatory experience at school for patterns of dyadic ethnic-racial socialization. Participants were 353 Black (39.7%), Latinx (47.3%), and multiracial/ethnic (13%) pre-adolescents (Mage = 11.19, SD = 0.43; 45.3% female) and their caregivers (94% mothers) with low income from Dallas, Texas. Five subgroups of dyads were identified (High Dyadic Engagement, Parent-Led, Justice Salient Advocates, Child-Dominant and Low Dyadic Engagement) that differed by demographic characteristics of the dyads (e.g., race/ethnicity, caregiver education). Observing ethnic-racial socialization in action with dyads could improve the delivery of interventions to better meet the needs of families.


Underrepresentation of women and students of color has been a longstanding issue in science, technology, engineering, and mathematics (STEM). The present study examined factors that contribute to academic satisfaction among 585 women college students of color (Mage = 21.42, SDage = 3.25; nBlack = 174, nLatina = 171, nAsian = 240), based on the Social Cognitive Career Theory satisfaction model. Experiences of discrimination was selected as an environmental obstacle and proactive personality as a person input in the model. In addition, critical consciousness was included as a personal resource variable. Multigroup measurement invariance tests and multigroup structural equation modeling were conducted to examine the racial/ethnic differences in constructs and their interrelationships. The findings showed that discrimination, proactive personality, and critical consciousness contributed to academic satisfaction via self-efficacy, outcome expectations, and goal progress. Theoretical, clinical, and institutional implications are discussed in light of the findings. Limitations and future research directions are also discussed.


La COVID-19 a entraîné des fermetures d’écoles généralisées avec des conséquences importantes pour les adolescents (décrochage scolaire, perte d’apprentissage, risque de perte des compétences acquises...). Entreprise au Kenya dans deux comités urbains (Nairobi, Kismu) et deux ruraux (Kilifi et Wajir), l’étude vise à mieux comprendre l’impact de la COVID-19 sur les adolescents et les résultats scolaires des filles pour permettre : a) la mise en œuvre de politiques et de programmes, à court et moyen terme, pour remédier aux dommages immédiats causés; b) une meilleure préparation à d’autres pandémies. Les résultats sont classés en deux domaines, éducation, santé et bien-être.


À l’heure où l’Éducation nationale s’empare explicitement des questionnements relatifs aux identités de genre en milieu scolaire, cet ouvrage propose d’analyser des expériences de jeunes « trans » en éducation physique et sportive (EPS). L’EPS est une discipline dans laquelle les normes de genre se font, se défont et/ou se reconstruisent : les transidentités y vivent indéniablement des expériences singulières. De jeunes « trans » évoquent dans leur témoignage les vestiaires, les corps, les groupements, les barèmes, les APSA ou encore les attentes de l’enseignant. Cette étude intéressera toutes les personnes s’interrogeant sur la place des transidentités dans le contexte singulier de l’École Républicaine « à la française ».

This article estimates the value of extended earnings—market earnings plus the imputed value of unpaid work—and assesses how this alternative measure affects the level and distribution of economic wellbeing within households of differing compositions. Prior research finds that excluding the value of unpaid work distorts conclusions about women’s contributions to household income and inequality more generally. Variation across household types has been understudied. The authors use data from the Harmonized European and American Time Use Surveys, combined with income data from the Luxembourg Income Study Database, to assess outcomes in six European countries and the United States. The study compares market to extended earnings to assess inequality within and across household types: single adults with and without children, and cohabiting adults with and without children. Key findings include: (i) women’s time in unpaid work exceeds men’s in all study countries; (ii) shifting from market earnings to extended earnings narrows gender disparities in all countries; and (iii) moving to extended earnings reduces inequality among both women and men, but more so among women. On all outcomes, we find that household composition shapes women’s outcomes more than men’s, and, overall, parenting status plays a larger role than partnership status.


Background This article explores the methodological foundations for a utopian methodology as a form of Design-Based Intervention Research (DBR) that can guide the process of envisioning, implementing, sustaining, and critically evaluating the more radical forms of educational activity systems that prefigure the utopian goal of an equitable and humane education system.

Methods We examine, guided by a utopian methodology lens, the examples from three national traditions for designing and implementing equitable educational activities. Each illuminates critical phases in the process of conducting DBR, combining social theory and cultural-historical activity theory.

Findings We propose methodological principles for a utopian methodology as a form of DBR: a) Some conditions for sustaining and re-generating the utopian goal should be explicitly considered; b) Examine the recurring challenges to viability and achievability of the utopian design in its learning ecology that emerge for observation over multiple times scales; c) Self-critique and collaborative re-design for a new iteration.

Contribution Taken as an ensemble, the cases analyzed here illustrate the broad usefulness of the utopian methodology that we propose in order to maintain the light of the utopian goal and challenge domestication process embedded in any process of change and transformation of the status quo.


Parents experience difficulty helping their children with math at home. Math teachers can provide guidance or materials to parents. Little is known about whether this help from math teachers has benefits for parental support at home and thus contributes to students’ academic development in math. The current study examines longitudinal associations between parents’ perceived support from math teachers, parental academic support at home (reported from parents and students), and changes in students’ intrinsic motivation and anxiety in math. Data stem from ninth and tenth graders.
(Mage = 14.49, SD = 0.93, 13 public schools, 56.5% girls) and their parents (N = 157 parent–child dyads). The latent structural equation model demonstrated no association between parents’ perceived support from math teachers and their academic support at home. Parents’ reported academic support at home was cross-sectionally and positively related to students’ perceived parental academic support at home and students’ intrinsic motivation. In addition, students’ perceived parental academic support at home was associated with positive change in students’ intrinsic motivation over the academic year. Furthermore, higher student intrinsic motivation leads to a decrease in their anxiety in math over the academic year.

Sahali, R. (2022). L’innovation en Algérie : quelle formation dans les écoles d’ingénieurs pour quelles innovations? (Phdthesis, HESAM Université ; Ecole Nationale Supérieur de Management (ENSM)). Consulté à l’adresse https://theses.hal.science/tel-04023160

En ce début du 21ème siècle, dans de nombreux pays, l’innovation est encouragée dans les discours institutionnels, au niveau politique, dans les entreprises et dans les collectivités locales, car elle serait une source de croissance et de progrès, le moyen privilégié d’un développement durable dans les pays industrialisés et d’une amélioration du niveau de vie des pays en voie de développement. En ce qui concerne l’Algérie, dans le contexte d’un environnement concurrentiel qui est naissant suite à la récente libéralisation de l’économie, l’innovation est également affichée depuis quelques années comme un objectif, qui va dans le sens du développement de l’économie basée sur la connaissance et le développement industriel... En conséquence, de plus en plus, les regards se tournent vers le système d’enseignement supérieur et de la recherche, sur lequel on entend faire reposer la compétitivité économique future et le dynamisme industriel. L’Algérie compte 47 universités, 10 centres universitaires, 20 écoles nationales supérieures, 5 écoles normales supérieures et 10 écoles préparatoires implantées au niveau des 48 wilayas (régions). Notre recherche s’intéresse aux grandes écoles de différentes spécialités et son objectif est d’interroger le sens donné à l’innovation en Algérie et les efforts mis en place pour former les innovations attendues. Dans une telle optique, nous avons défini la question principale qui va guider cette recherche : l’innovation en Algérie : quelles formations pour quelles innovations ? Les questions qui guident notre démarche sont les suivantes : qu’entend-on par innovation en Algérie ? Quel sens donnent les différents acteurs à l’innovation ? Pour répondre à quels besoins, à quels usages, à quelles aspirations ? Quelles sont les injonctions à l’innovation au niveau politique et comment sont-elles traduites en termes de formation dans l’enseignement supérieur ? Que met-on en place en termes de formations au niveau curriculaire et dans les pratiques pédagogiques et pour quels types d’innovation attendues ? En Algérie, l’innovation est-elle fréquemment liée à l’entreprenariat dans les représentations ? Comment l’expliquer ? Quels sont les différents cadres de référence identifiables et quels sont les points de tension entre eux ? Le cadre théorique de cette recherche s’articule autour de deux champs théoriques : le premier porte sur les théories de l’innovation et son évolution. Le deuxième, porte sur l’enseignement supérieur en Algérie et la formation dans les grandes écoles. Ces deux champs vont s’appuyer sur une analyse théorique des apports de la sociologie de curriculum dans cette thématique. Notre travail fait suite à une étude exploratoire et descriptive menée dans le cadre d’un mémoire de master (« Le rôle de l’innovation dans l’amélioration de la performance commerciale », 2015). Il se base sur une approche qualitative qui va permettre de collecter, traiter et analyser les données.
We study a decade of achievement gaps for fifth-, eighth-, and 10th-grade students in Norway using administrative population data. Norway is a wealthy and egalitarian country with a homogeneous educational system, yet achievement gaps between students at the 90th and 10th percentiles of parental income and between students whose parents have at least a master and at most a high school degree are found to be large (0.55–0.93 and 0.70–0.99 SD), equivalent to about 2 to 2.5 years of schooling, and increasing by grade level. Achievement gaps by parental income, but not by parental education, increased over the time period, underscoring the different ways these two socioeconomic status components relate to achievement and the potential for policy to alter gaps.

What explains rural-urban learning inequalities is still under debate. This study investigates factors that account for learning inequalities in Benin, Burkina Faso, Togo, and Cameroon and then explores patterns of similarities across the four countries. It employs the Program for the Analysis of CONFEMEN Education Systems (PASEC) data which it analyzes using recentered influence function decomposition. Findings suggest that for all countries, tangible and intangible factors explain between 51.10% and 48.9% of the learning inequality at the mean, respectively. The decomposition across the distribution reveals that tangible factors explain between 41.50% and 65.3% of the learning inequality, which implies that intangible factors explain between 34.7% and 58.5% of the disparity. The cross-country analysis at the mean reveals that tangible factors explain between 45.60% and 69.1% of the rural-urban learning gap and intangible ones between 30.9% and 54.4%. Across the distribution, tangible factors account for the gap between 17% and 96.40% and intangible ones between 3.6% and 83%. Across the countries investigated, the gap is explained more by school-related factors. Implications of the findings are discussed in the article.

Using job embeddedness theory, this study investigated the off- and on-the-job forces experienced at the axis of race and gender that contribute to Black women staying in science, technology, engineering, and mathematics (STEM) professions. Using purposive, snowball sampling, 13 Black women with STEM degrees and professional experience were selected for semi-structured interviews via Zoom. Tensions in navigating the race–gender intersection were evident in participants’ experiences and informed their perceptions of fit, links, and sacrifices. Moreover, welcoming environments, financial stability, the desire to serve communities as role models, and opportunities to innovate, learn, and grow contributed to participants’ embeddedness in STEM professions. Contrary to previous research, respondents demonstrated high agency and confidence. Organizations can enhance the retention of Black women by providing growth opportunities and welcoming spaces. Specifically, inclusive leadership is essential to retaining a diverse workforce and making the value of Black women visible to drive STEM innovation.

Background Scholarship demonstrates that Black girls’ capacities to imagine possible futures in computing are constrained by narratives of white masculinity and misogynoir embedded within computing. Building on race critical code studies and identity-as-narrative theories, we examine restorying through Black womanist storytelling methodologies for integrating Black girls’ intersectional identities when designing and reimagining their computing futures. We ask: How might womanist storytelling methods support one Black girl in restorying possible computing futures?

Methods We present a case focused on one study participant, Heather’s, restorying practices situated within a larger workshop wherein marginalized youth reimagined dominant narratives about computer science (CS). This was by creating interactive quilt patches using paper circuits and microcontrollers that challenged dominant narratives of white masculinity and misogynoir normalized throughout the field.

Findings We see that restorying through womanist storytelling methods allowed Heather to (1) deconstruct narratives of white masculinity and misogynoir throughout CS education by centering Black women’s ways of knowing and doing, and (2) restory the past to enact possible CS futures and identities through computing.

Contribution In the discussion, we address challenges and successes with integrating Black girls’ experiences with speculative methodologies in learning sciences research.


Many prior studies have documented disparities in school discipline practices across racial, economic, and other student characteristics. The primary purpose of this study was to determine the extent to which students affected by intergenerational poverty (IGP) received infractions (incidents) and experienced exclusionary disciplines (suspensions and expulsions), relative to other student groups. To do so, this study examined incident and discipline rates, calculated the number of lost days of instruction per 100 students, considered the number of days lost based on disciplines received, and conducted an analysis of the disciplines received by students affected by IGP and similar peers. Results suggest that students affected by IGP have higher discipline rates than other student groups and were 1.78 times more likely to receive a discipline than similar peers. Policy considerations include a set of metrics useful at the state and local level for ongoing monitoring, the importance of data quality, and the need to revisit related policies and their implementations.


A growing number of school district and community organizations are seeking to address a ‘crisis’ of Latino male education through the creation of Latino male mentorship programs. Indicative of neoliberal shifts in urban education, these programs often involve public-private partnerships and bring problem-solving, deficit-approaches to youth work. This article examines the construction of Latino male identity in one Latino male
mentorship program. Drawing from two years of ethnographic research, I analyze the ways the perceived cultural deficits of Latino boys in the program are dictated by a neoliberal multicultural imaginary. This framing positioned the program as combating popular racial and heteropatriarchal deficits assigned to Latino boys. Furthermore, ethnographic data illustrate the ways the neoliberal values of meritocratic individualism, smart consumerism/market-orientation, and benevolent hetero-patriarchy were embodied and practiced. I close by highlighting moments of resistance and refusal enacted by one mentor to challenge deficit-framings of Latino male mentoring.


We tested the relationship between gender-stereotypical beliefs (GSBs) of female and male classroom peers and female achievement in mathematics. Complete-class student survey data merged with family register data from 1,047 Danish 6th-grade students, nested in 50 classrooms within 28 schools, were analysed using multilevel linear regressions including controls for parental education and income, the percentage of females in the classroom, prior math test scores, and the parental education, income, and prior test scores of female and male peers. We found that the GSBs of female peers were negatively associated with girls’ math achievement. Similar variables were not related to the math achievement of boys.


In this article authors Katy Swalwell, Noreen Naseem Rodríguez, Amy Updegraff, and Leslie Ann Winters share findings from their critical content analysis of the free preK–5 resources for antiracist, social justice teaching in the Teachers Pay Teachers’ Teach for Justice collection. Using Picower’s (2012) six elements of social justice curriculum design, as well as guidelines and suggestions offered to content creators in this online curriculum market place, the authors found that the materials in the sample lacked accuracy, avoided clarity, and promoted thin conceptions of social justice and antiracism. They claim that, in general, the collection subverts traditions of social justice and antiracist education by erasing power dynamics, distracting students’ attention away from oppression, and othering BIPOC students. They conclude with a call for educators to avoid the collection and to instead invest in high-quality vetted resources as well as professional development that helps them sharpen their critical capacities around curricular resources.


This study examines the social experiences of Iranian female immigrants in schools in Toronto, Canada. Drawing on postcolonial theory and critical whiteness studies, I interrogate the ways in which ‘Oriental’ subjects are Othered among their peers, and how whiteness is established as the invisible norm. This study observes the role that having an immigrant, English-as-a-second-language (ESL) identity plays in shaping the participants' social experiences at school. The women in this study rejected racism as a
plausible cause of their social exclusion. I suggest two possible explanations for this: (1) the ‘Aryan myth’, which still heavily circulates within Iranian communities, constitutes a subtle mechanism by which white supremacy is culturally inherited by many Iranians; (2) the participants’ ability to ‘pass’ as white acted as a privilege which made race a less salient marker of difference to them. Instead, their status as the ‘Oriental Other’ was most visible when language was concerned.


Women and men are capable of effectively discharging school leadership roles. However, in Ghana, people are socialised to expect females to lead girls’ schools and vice versa. Appointing a female or male to lead a single sex school that is opposite to their gender elicits gender stereotyping, protests and exclusion. While researchers have explored these dynamics in co-educational basic schools, they have not extended them to single sex schools. This case study investigated how the leadership practice of a male-led girls’ school in the Central Region of Ghana has challenged gendered walls. The study engaged 23 multiple stakeholders and gathered data through semi-structured interviews, observations and document analysis. Intra- and cross-case analyses of data revealed that loyalty to gender walls in single sex schools reflects the desire to respect and maintain the tradition of female headteachers in girls’ schools and male headteachers in boys’ schools. Overall, Ghana is still a traditional and patriarchal society that is characterised by gender inequity in leadership spaces. However, men and women who exhibit professional integrity and leadership competence could convert critics to supporters in a range of school settings. The Ghana Education Service should provide leadership preparation for practitioners to improve their leadership competence.


This study forms part of a participatory action research project, undertaken in four Spanish schools, analysing the planning and development of educational practices that link each school with its territory through community participation processes. The article describes how school leadership can help to develop participatory processes with the educational community in order to foster such practices. Multiple case study methodology was used. Information was gathered and analysed with qualitative research tools, including participant observation, interviews, discussion groups, documentary analysis and the researchers' field diaries. Results show the importance and influence of the management team’s leadership style in facilitating and developing such practices, and reveal a need to move towards collaborative leadership models. The study also highlighted the importance of ensuring that families and students assume responsibility.


L’Initiative « Priorité à l’égalité » (Gender at the Centre - GCI) a été lancée en 2019 à l’occasion du G7 par les ministres de l’Éducation et du Développement international, en collaboration avec les organisations multilatérales et de la société civile, engagés à promouvoir l’égalité des genres en éducation. L’initiative des Nations Unies pour l’éducation des filles (UNGEI) s’est engagée à soutenir le travail des groupes locaux d’éducation dans les huit pays du programme (Burkina Faso, Tchad, Mali, Mauritanie, Mozambique, Niger, Nigeria, Sierra Leone) et à appuyer la production des rapports annuels des pays sur l’égalité des genres dans l’éducation, en collaboration avec les points focaux des groupes de chaque pays.


Le rapport présente les conclusions de la recherche-action sur la violence sexiste en milieu scolaire (VGMS) dans six écoles et communautés de la Sierra Leone. Le projet visait à comprendre les manifestations de cette violence, à analyser la mise en œuvre des normes minimales pour y répondre et à identifier les obstacles et les opportunités pour renforcer sa mise en œuvre. Le rapport met en évidence les défis et les opportunités pour lutter contre la VGMS en Sierra Leone.


Parent-teacher conferences (PTCs) are important institutional encounters to promote a constructive dialogue and alliance between the school and the family system. However, cooperation between parents and institutional actors is not always straightforward, especially in the case of foreign parents. Because of the unequal familiarity of the latter with the institutional frameworks and language resources needed to participate effectively in PTCs, foreign parents risk having less communicative resources to rely on in the joint construction of the interaction. In this paper we focus on eight PTCs with foreign parents, paying attention to occurrences where children’s learning difficulties are linked...
by teachers to their language skills. Using a conversation analysis framework, we will observe how language issues are intertwined with cultural, identity, and moral aspects that need special attention in order to enhance and support the effective construction of educational alliances between schools and families.


In recent decades, female students have been more successful in higher education than their male counterparts in the United States and other industrialized countries. A promising explanation for this gender gap are differences in personality, particularly higher levels of conscientiousness among women. Using Structural Equation Modeling on data from 4719 Dutch university students, this study examined to what extent conscientiousness can account for the gender gap in achievement. We also examined whether the role of conscientiousness in accounting for the gender gap differed for students with a non-dominant ethnic background compared to students with a dominant ethnic background. In line with our expectations, we found that conscientiousness fully mediated the gender gap in achievement, even when controlling for prior achievement in high school. This was the case among both groups of students. These findings provide insight into the mechanisms underlying the gender gap in achievement in postsecondary education settings. The current study suggests that the use of conscientiousness measures in university admission procedures may disadvantage male students. Instead, the use of such measures may be a fruitful way to identify those students who may benefit from interventions to improve their conscientiousness. Future research could examine how conscientiousness can be fostered among students who are low in conscientiousness.


The subject of bullying has received widespread academic attention, going back to pioneering studies in the 1970s. However, work in this area has tended to take a gender-neutral/male perspective that does not distinguish between male and female bullying. While retaining a dialogue with generalist literature on the subject, this article seeks to highlight the theoretical and political-social relevance of gender-specific and intersectional approaches when exploring the question of bullying between adolescent girls. Based on the study Il bullismo femminile a scuola. Un’indagine intersezionale mixed-method (Female bullying at school, an intersectional, mixed-method study) – conducted in medium-sized and large cities in northern, central and southern Italy – it proposes a theoretical-analytical framework in which to consider the phenomenon of female bullying in Italian schools.


This study explored the short-term longitudinal associations between Five Factor Model (FFM) and social goals (social dominance, popularity, and intimacy), with relational aggression (RAgg) as a mediator. RAgg was claimed to mediate the positive correlations of neuroticism with dominance and popularity, whereas extraversion was argued to positively relate to intimacy through low RAgg. The participants were 2207 Greek 13- to
16-year-olds (M = 14.04; 52.8% female), mostly from middle-class families. Respondents completed three self-report measures (T1, T2; 6-month interval) during the school year. Confirmatory factor analysis explored a measurement model, whereas a longitudinal mediation model tested whether RAgg mediates the relationship between personality and social goals. Cross-lagged correlations revealed associations of RAgg with neuroticism, dominance, and popularity but not openness, conscientiousness, extraversion, and agreeableness. Weak positive correlations emerged between FFM traits and intimacy, neuroticism, and dominance. Results indicated positive indirect effects from T1 neuroticism and negative from T1 agreeableness to T2 RAgg, which was then positively linked to T2 dominance and popularity. The research highlights the importance of RAgg as a mechanism for endorsing social goals for adolescents with specific personality traits. Intervention strategies aiming at limiting RAgg could consider agreeableness and neuroticism, providing adolescents with the behavioral tools to cope with anxiety and negative affect.


Gender bias in teaching materials may influence students’ development and contribute to social inequalities. This study investigates possible gender bias in a newly published English textbook series in Vietnam. Holding gender as a social construct, the research uses a multimodal critical approach to examine language and ideological systems. The results show despite some effort for gender equity, the making of textbooks in today’s Vietnam is still affected by patriarchal Confucian values. Males inhabit bigger verbal space and have more social properties. Females are portrayed as less independent; their choices are more limited, and with less resources. Textbook author interviews show the writing was influenced by conscious and unconscious bias, but they agreed gender equality is important, although male domination beliefs still seem to be deeply ingrained in the society. The study raises questions on challenging the status quo and creating a new cultural narrative for women’s rights recognition and enactment.


Gender-math stereotypes are thought to be a threat for women’s mathematical performance, however, the mechanism of gender stereotype affecting mathematics achievement is not clear. The current study aimed to explore the different role of attitude towards mathematics and math self-concept in the relationship between gender-math stereotypes and mathematical performance for men and women. A total of 297 Chinese college students participated in our survey. Results showed that math self-concept played a suppressing effect on the relationship between gender-math stereotypes and women’s mathematical performance, while attitude had no mediating role in the relationship between gender stereotypes and mathematical performance. However, gender-math stereotypes could not directly predict men’s mathematical performance, nor could it predict through math self-concept or attitude towards mathematics.
Zeng, P., Nie, J., Geng, J., Wang, H., Chu, X., Qi, L., ... Lei, L. (2023). **Self-compassion and subjective well-being: A moderated mediation model of online prosocial behavior and gratitude.** *Psychology in the Schools, 60*(6), 2041-2057. [https://doi.org/10.1002/pits.22849](https://doi.org/10.1002/pits.22849)

Previous studies have shown that personal factors serve as mediators in the link between self-compassion and subjective well-being (SWB). However, these studies have neglected the possibility that online prosocial behavior (OPB) may serve as a mediator in the link between self-compassion and SWB. Based on the PERMA theory of well-being and the protective-protective model, the current study examined whether OPB would mediate the association between self-compassion and individual SWB, and whether gratitude would moderate the association between self-compassion and OPB. A valid sample of 1488 college students (Mage = 19.84; SD = 1.61) filled out questionnaires regarding demographics, self-compassion, OPB, gratitude, and SWB. Results showed that, after controlling for gender, age, daily online time, and social desirability, OPB mediated the association between self-compassion and individual SWB, and gratitude strengthened the positive association between self-compassion and OPB. These findings reveal that high self-compassionate and grateful people can enhance their subjective well-being through behaving prosocially online.

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**Climat de l'école**

Catheline, N. (2023). *Le harcèlement scolaire* (3ème édition). Consulté à l’adresse [https://www.puf.com/content/Le_Harc%C3%A8lement_scolaire_0](https://www.puf.com/content/Le_Harc%C3%A8lement_scolaire_0)


246 millions de filles et de garçons dans le monde vivent la violence sur le chemin de l’école, à l’école et dans la classe. Les violences basées sur le genre en milieu scolaire (VGMS) peuvent être physiques, psychologiques et/ou sexuelles. Les filles présentent un risque plus élevé de subir des violences sexuelles. La fiche présente les approches des projets Girl’s education challenge (GEC) - renforcer le signalement et la réponse des systèmes éducatifs, former et sensibiliser le personnel, sensibiliser les filles - et les facteurs semblant entraîner des changements positifs dans plusieurs domaines - attitudes à l’égard de la violence sexiste, pratiques enseignantes, perceptions des filles de la sécurité et de la qualité des systèmes de signalement et d’orientation.
Cyberbullying is a significant public health concern that has been associated with negative outcomes. The pandemic has increased the reliance on technology in the classroom; thus, research exploring cyberbullying in the classroom is even more important. Furthermore, it is important to understand teachers’ perceptions of cyberbullying to inform efforts to support teachers in addressing cyberbullying. With a nationally representative sample of 174 teachers in the United States, a series of questionnaires were administered to investigate teachers' perceptions of cyberbullying, their preparedness to address cyberbullying, perceptions of effective strategies to address cyberbullying and whether social-emotional learning programs used in their schools incorporate digital citizenship skills. Results indicated little change in the rates of cyberbullying in schools, but that teachers reported a need for training and professional development to best support them on this topic. Implications related to teacher educator preparation programs and school based interventions targeting cyberbullying are discussed.

This study involved a systematic and evaluative review of school climate measures to catalog main domains and subdomains and rate parameters of instrument presentation and psychometric quality. Four databases were used (Web of Science, Scopus, ERIC, and PsycINFO) and 37 instruments (studies) met inclusion criteria (instrument measured school climate; psychometric properties of the instrument were provided; every instrument included in the review has its original version published; the article was in English or Spanish; the article was a peer-reviewed publication). Information was synthesized according to instrument presentation and psychometric quality. The expansion of literature search routes was designed to mitigate publication bias. Analysis revealed four main domains among extant school climate measures: relationships (social relationships, school connectedness, leadership, and culture), environment (school facilities, physical comfort, and cleanliness), safety/discipline (school safety, fairness of rules, bullying and aggression, disciplinary harshness, and general drug use), and academic (academic outcomes, equality of opportunity, engagement, and cohesiveness/competitiveness). This domain/subdomain architecture could serve as a touchstone for conceptualizing school climate and developing and refining future assessment devices for this construct. The domain/subdomain architecture could also help guide school reform efforts. Limitations included possible publication bias and an exclusive focus on questionnaires and not other methods to assess school climate.

Schools are placing a heavy focus on providing a safe learning environment. Part of that safe environment is for the school to be a bully-free zone. In order for a school to be bully-free, staff must be able to identify bullying when it happens in order to make appropriate referrals. This article looks at the ability of pre-service teachers to identify bullying, their knowledge about bullying, and their perception of how to help. It is clear from the results
of this survey, more attention needs to be spent helping pre-service teachers identify bullying as a means of keeping the school building and the students within it safe.


Background Self-regulation promotes engagement within the classroom. At a physiological level, a good indicator of the ability of the system to self-regulate is cardiac vagal tone (CVT). Aims The present study aims to assess children’s change over time (1 year) in their parasympathetic regulation (by way of CVT) in response to a social and cognitive stressor. Moreover, it addresses whether, if present, this change over time in regulation influences students’ engagement in classroom activities while also accounting for classroom climate. Sample Forty-nine second graders were assessed at two time points: November 2018 (T1) and 1 year later in 2019 (T2). Methods Children’s CVT was registered at rest and while performing a stressful task during which they were asked to cognitively perform while being socially evaluated. Children were also interviewed on how much they feel engaged in classroom activities and their perceptions of classroom climate. Results A repeated measures analysis of variance including 2 Time Points ×2 Phases of CVT Registration (baseline and during the stressful task) revealed a significant decrease in cardiac vagal activity from baseline to the task at T1, indicating that initially most children were not able to self-regulate and gave way to a stress response when facing the stressful task. The pattern changed at T2 when an active regulation took place signalled by an increase in CVT from baseline to the stressful task. Data analysis also revealed that among children who perceived a poorer classroom climate, the display of greater parasympathetic regulation over time was linked with higher active engagement in classroom activities. Conclusions Growth in physiological regulation in response to a challenging task is associated with better engagement in classroom activities. Interventions and educational practice promoting the development of self-regulation strategies are recommended.


In 2014, the popular conversation about safe space in the classroom tended to mock marginalized students seeking protection. Nearly a decade later, the discourse has become protectionist toward majority students allegedly discriminated against by being informed that they benefit from racism, sexism and heterosexism. What, then, does it mean to talk about making classrooms safe spaces for learning? Through defining six considerations for safe space, we advocate for all colleges, faculty, and students to better facilitate inclusion.


Le rapport présente les conclusions de la recherche-action sur la violence sexiste en milieu scolaire (VGMS) dans six écoles et communautés de la Sierra Leone. Le projet visait à comprendre les manifestations de cette violence, à analyser la mise en œuvre des
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The subject of bullying has received widespread academic attention, going back to pioneering studies in the 1970s. However, work in this area has tended to take a gender-neutral/male perspective that does not distinguish between male and female bullying. While retaining a dialogue with generalist literature on the subject, this article seeks to highlight the theoretical and political-social relevance of gender-specific and intersectional approaches when exploring the question of bullying between adolescent girls. Based on the study Il bullismo femminile a scuola. Un’indagine intersezionale mixed-method (Female bullying at school, an intersectional, mixed-method study) – conducted in medium-sized and large cities in northern, central and southern Italy – it proposes a theoretical-analytical framework in which to consider the phenomenon of female bullying in Italian schools.

Évaluation des dispositifs d'éducation-formation


L’objectif de cette thèse est d’évaluer les effets de la pratique précoce de la programmation visuelle avec Scratch sur les performances en mathématiques, l’anxiété en mathématiques (Ashcraft & Kirk, 2001; Ashcraft & Krause, 2007; Ashcraft & Moore, 2009; Hembree, 1990), le sentiment de compétence en mathématiques (Harter, 1985) et la motivation autodéterminée en mathématiques (Guay et al., 2010 ; Ryan & Deci, 2000) dans le cadre du projet Expiré (Expérimenter la Pensée Informatique pour la Réussite des Elèves, projet e-fran 2017). Ce projet fait écho à la demande internationale d’introduire la pensée informatique dans les programmes scolaires (Bocconi et al., 2016 ; Tang et al., 2019 ; Wing & Stanzione, 2016) afin de doter les élèves des habiletés numériques indispensables à l’insertion dans une société de plus en plus numérique et favoriser leurs apprentissages, particulièrement en mathématiques, en raison de la proximité des processus cognitifs impliqués dans ces deux domaines (Scherer, 2016 ; Shute et al., 2017). La programmation, considérée comme un moyen d’enseigner, évaluer et exposer les étudiants à la pensée informatique, est massivement introduite au sein des programmes de mathématiques au primaire, comme c’est le cas en France (Bocconi et al., 2016). Nous testons les hypothèses que les performances ainsi que les variables conatives citées précédemment seront positivement influencées par l’utilisation de la programmation en classe. Pour cela nous avons mis en œuvre un ECR auprès de 2472 élèves du bassin grenoblois en CM1 et CM2, recrutés en 2017-2018. Le groupe expérimental, « programmation » réalise des activités de programmation sur trois séquences d’apprentissage mathématiques tandis que le groupe « contrôle » met en œuvre une pédagogie classique d’apprentissage pour ces mêmes séquences. Des mesures conatives en amont et en aval de l’expérimentation ainsi que des scores de réussite en mathématiques ciblés sur les notions travaillées ont été prises en pré et post-
test pour chaque séquence. Des analyses multi-niveaux nous ont permis de rendre compte d’une détérioration des apprentissages au cours des différentes séquences sous l’effet de la pratique expérimentale. Nous n’avons montré aucun effet de cette pratique sur nos variables conatives.


We provide evidence from a randomized controlled trial on the effectiveness of a novel, 100-percent online math tutoring program, targeted at secondary school students from highly disadvantaged neighborhoods. The intensive, eight-week-long program was delivered by qualified math teachers in groups of two students during after-school hours. The intervention significantly increased standardized test scores (+0.26 SD) and end-of-year math grades (+0.48 SD), while reducing the probability of repeating the school year. The intervention also raised aspirations, as well as self-reported effort at school.


This study synthesised previous literature focused on college English for Academic Purposes (EAP) programmes for writing. A meta-analysis of identified longitudinal studies (14 samples; 175 effect sizes; N = 602) revealed that the students improved their English writing through EAP programmes (d = .45, SE = .07, p < .001). By computing effect size mean estimates from ranges for the 25th, 50th, and 75th percentiles, we proposed effect size interpretation benchmarks for this subdomain of 0.3, 0.5, and 0.7 for small, medium, and large effects, respectively, for interpreting the improvements in writing through college EAP programmes. The meta-regression revealed that the students with low English proficiency improved significantly more than those with higher proficiency. Further, the programmes had a small effect in improving accuracy and complexity dimensions of writing. Different features of programmes and contexts have also been found to influence the degree of the improvements in complex ways.


The Cultural Adjustment Group is a pilot school-based group intervention for recently arrived immigrant middle school students. This study examined the feasibility, acceptability, and provided preliminary assessment data to guide future intervention research. Seventy (Male, n = 43; Female, n = 27) immigrant students who were Spanish-speaking, Arabic-speaking, and Bangla-speaking (ages 10–16, M = 13.17) from an urban school district in the Northeastern United States participated in this intervention. Pre and postgroup surveys and exit-group interviews were conducted to evaluate the program. The findings demonstrated this intervention has good feasibility and high acceptability by the participants. The Bangla-speaking group reported higher levels of clinical symptoms and perceived discrimination at pretest and reported a clinically significant reduction in clinical symptoms and acculturative stress at posttest. There were no clinically significant changes in the other two groups. The results offer guidance for future implementation of school-based intervention for newcomer students.
Cette contribution présente comment une instance d’évaluation d’un programme d’aide à la réussite étudiante s’est construite durant quatre ans. Il retrace le cas du comité scientifique et d’évaluation d’un projet pédagogique pluri-établissements démarré en 2018 dans le cadre du programme NCU-ANR-PIA d’une durée de 10 ans. Elle raconte les différents pas de la mise en place d’une évaluation instituée structurée par les statuts de ses membres, par l’adhésion à des principes sous-jacents inspirés de Thélot (2008) et inspirée par la recherche en évaluation et pas seulement par les demandes et évaluations spontanées. Elle précise les modalités de construction du jugement de l’évaluation par cette instance qui au croisement de l’évaluation externe et interne accompagne les acteurs pour le pilotage du projet et de ses différentes actions. A travers ce récit de pratique, nous proposons une analyse critique de la mise en place d’un tel comité, interrogant les postures à adopter dans cette démarche d’évaluation ainsi que les dynamiques permettant sa bonne mise en œuvre.

Many forms of bias have been identified in higher education research, and in educational and social research in general. This article identifies a further form of bias, positivity bias, and places it in this broader context. Positivity bias is the tendency, in some forms of published higher education research, to only or chiefly report examples of initiatives or innovations that worked and received positive evaluations. Empirical evidence of positivity bias, in the form of an analysis of a sample of published articles from selected higher education journals, is presented and discussed. Suggestions as to the causes of positivity bias and how it might be handled are presented.

Japan’s Social Thinking and Academic Readiness Training (START) program Academic Readiness (AR) lesson aims to improve self-regulation, executive function, and behavior problems in kindergarten children, but the effects of the START program AR lessons in unfavorable circumstances are unclear. Therefore, this study investigated the effects of the START program AR lesson in affected areas after the Great East Japan Earthquake. A cluster randomized trial was conducted with 111 5-year-old children in two kindergartens in Miyagi Prefecture to evaluate the effectiveness of the six-week AR lesson. One kindergarten was randomly chosen to implement the AR lesson, and the other maintained standard education. In the intervention group, trained classroom teachers provided the children with a 20-min AR lesson once a week. Executive function, behavioral self-regulation, and internalizing and externalizing problem behaviors were measured before and after the six-week intervention. The intervention group showed improved inhibitory control and enhanced behavioral self-regulation compared with the standard practice group. In addition, teachers’ evaluations showed that children’s internalizing and externalizing problem behaviors improved significantly. The results indicate that the START program AR lesson was effective in enabling teachers to help
students improve executive function, self-regulation, and problematic behaviors. Therefore, educators and policy-makers should consider implementing the START program AR lesson in kindergartens after a disaster.

Marché du travail


The paper investigates changes in the quality of the labour input in Poland in 2006-2020. Labour quality – which captures compositional changes of the workforce, referring to education, experience, gender and occupation – substantially improved, growing on average by 0.55% a year, compared to much slower growth of unadjusted labour input (hours worked) of 0.11% a year. Growth in the labour quality, which means improvement in workers’ characteristics, was mainly driven by positive changes in the educational composition of workers. Labour quality growth showed less volatility compared to growth of hours worked in the economy and it was negatively correlated to both growth of hours worked and GDP growth, mitigating procyclicality of the labour input. Additionally, falling tertiary education wage premia are documented.


A large literature establishes that cognitive and non-cognitive skills are strongly correlated with educational attainment and professional achievement. Isolating the causal effects of these traits on career outcomes is made difficult by reverse causality and selection issues. We suggest a different approach: instead of using direct measures of individual traits, we use differences between individuals in the presence of genetic variants that are associated with differences in skills and personality traits. Genes are fixed over the life cycle and genetic differences between full siblings are random, making it possible to establish the causal effects of within-family genetic variation. We link genetic data from individuals in the Swedish Twin Registry to government registry data and find evidence for causal effects of genetic differences linked to cognitive skills, personality traits, and economic preferences on professional achievement and educational attainment. Our results also demonstrate that education and labor market outcomes are partially the result of a genetic lottery.


La crise sanitaire a accéléré la montée en puissance du télétravail, au risque de créer une fracture numérique entre les métiers « télétravaillables » et ceux qui ne le sont pas.


Stages, bénévolat, projets non rémunérés, service national universel, service civique... les jeunes hommes et femmes qui acceptent cette logique de « travail de l’espoir », selon l’expression des sociologues, en espèrent un retour sur investissement.


Mothers’ longer time out of the labour market due to parental leave has been proposed as one of the main determinants of the gender pay gap. This study focuses on the mechanisms behind the gendered division of care after entering parenthood. By comparing paid parental leave use of biological parents (where mothers gave birth) to adoptive parents (where they did not), we assess to what extend the unequal division of care can be explained by physiological aspects of motherhood or if other explanations, like gender norms or financial motives, can explain these differences. We analyse Swedish register data from 1994 to 2009 on couples whose first child was biological (N = 114,479) or adopted (N = 5,467) (between-family comparisons) and for families who had both adopted and biological children (within-family comparisons; N = 1,033). We find highly similar patterns in the division, length, and timing of parental leave for biological and adoptive children. Both biological and adoptive mothers take the majority of leave (78–82 per cent), the longest leave, and the first leave period. We conclude that persistent norms of mothers as caregivers/homemakers and fathers as breadwinners shape parents’ use of parental leave to a greater extent than factors related to biological motherhood or financial motives.


Le chômage diminue depuis 2016, y compris pour les catégories les plus touchées : les ouvriers, les jeunes, les moins diplômés. Les inégalités restent fortes, mais les écarts se réduisent.

Les immigrés et leurs descendants sont plus touchés par le chômage que le reste de la population active. À niveau de diplôme, catégorie sociale et âge comparables, les actifs originaires d’Afrique ont un risque près de deux fois plus élevé d’être sans emploi que les personnes sans histoire migratoire.

**Métiers de l’éducation**


The unprecedented challenges of teaching during COVID-19 prompted fears of a mass exodus from the profession. We examine the extent to which these fears were realized using administrative records of Massachusetts teachers between 2015–2016 and 2021–2022. Relative to prepandemic levels, average turnover rates were similar going into the fall of 2020 but increased by 17% (from 15.0% to 17.5%) going into the fall of 2021. The fall 2021 increases were particularly high among newly hired teachers (31% increase) but were lower among Black and Hispanic/Latinx teachers (5% increases among both groups). Gaps in turnover rates between schools serving higher and lower concentrations of economically disadvantaged students narrowed during the first 18 months of the pandemic. The same holds true for gaps in turnover between schools serving higher and lower shares of Black and Hispanic/Latinx students. Together, these findings highlight important differences in teachers’ responses to the pandemic across subgroups and the need to improve early-career retention to ensure long-term stability within the teacher workforce.


This systematic review investigates the effect of teacher professional development (TPD) on adolescent students’ reading achievement in middle and high school. A systematic search of TPD and student reading achievement studies (1975–2020) identified 15 medium-quality articles meeting this study’s inclusion criteria. A meta-analysis of 14 of these studies corrected by Hedges’ g showed that TPD on student reading was associated with a small overall effect of $g = 0.062$, $p < .05$ on student reading outcomes. However, the effect size was moderated by delivery of the TPD, TPD hours, student population, and assessment. None of the 14 studies reported TPD theory-driven quality indicators for TPD delivery (e.g., school support, use of technology, and promotion of self-reflection or reported measures of teacher change). Conclusion of findings in literacy TPD includes the need for TPD theory-driven studies.


Self-efficacy is a perceived judgment that one has the ability to execute a course of action that brings about a desired result. While a growing body of research demonstrates the importance of self-efficacy by school leaders, little is known about the different sources of principals’ self-efficacy. This qualitative study investigates the relevance of Bandura’s sources of self-efficacy and on potential additional sources. The analysis is
based on semi-structured interviews with 23 primary school principals in Flanders (Belgium). The results reveal that mastery experiences prove to be the most powerful source of principal self-efficacy although they are mainly small successes and do not refer to extraordinary achievements or excellent results. This study also emphasizes the importance of verbal or social persuasion and gaining knowledge. Suggestions for further research, limitations and implications of this study are discussed.

Et chez toi, ça va ?

The pursuit of multiple educational outcomes makes teaching a complex craft subject to potential conflicts and competing commitments. Using a data set in which teachers were randomly assigned to classes paired with videotaped lessons, we both document and unpack such a tradeoff. Upper-elementary teachers who excel at raising students’ math test scores often are less successful at improving student-reported engagement in class (and vice versa). Furthermore, teaching practices that improve test scores (e.g., cognitively demanding content) can simultaneously decrease engagement. At the same time, paired quantitative and qualitative analyses reveal two areas of practice that support both outcomes: active mathematics with opportunities for hands-on participation, physical movement, and peer interaction; and established routines and procedures to proactively organize the classroom. In addition to guiding practice-based teacher education, our sequential, explanatory mixed-methods analysis can serve as a model for rigorously studying and identifying dimensions of “good” teaching that promote multidimensional student development.

When we think about the issues currently confronted by those who work in schools, stress and burnout among teachers and other practitioners is recognized as a widespread concern due to the adverse effects on students, schools, and communities. The purpose of this study was to investigate the effects of job stress on the experienced burnout of teachers, and to examine the variability in burnout attributable to a specific psychological resource, namely, an individual’s work-related sense of coherence (Work-SoC). A descriptive, cross-sectional analysis was conducted using data collected through an online survey from 231 primary and secondary school teachers in the United States. Results from correlational and regression analyses demonstrate that two forms of work stress—perceived quantity and perceived quality—are important predictors of burnout. Further, Work-SoC contributes to variability in teacher burnout even after accounting for perceived work and life stress, suggesting its important role in buffering teachers from the experience of burnout. Implications for practitioners for reducing teacher stress and burnout are discussed.

The purpose of this study was to understand the extent to which teachers experience costs to caring (e.g., secondary traumatic stress, burnout, and intent to leave the profession) and to test a Teacher Costs to Caring Resilience Model (TCCRM) using structural equation modeling. Participants consisted of 542 teachers in the Northeastern U.S. Findings suggested that the personal protective factors of resilience and compassion satisfaction showed a negative direct effect on costs to caring. Further, the professional protective factor of working in a positive school climate showed a negative indirect effect specifically on burnout. Focusing on improving teacher resilience, compassion satisfaction, and school climate using a systems-based approach modeled on the TCCRM is suggested.


Dans une étude publiée jeudi 27 avril, le collectif « Nos services publics » souligne la dégradation des conditions de salaires des enseignants.


The diffusion of evaluation systems based on research excellence has been confronting scholars with the dilemma of how to combine the different activities and roles characterizing the academic profession. Besides research, other types of knowledge transfer and academic citizenship, i.e., the service activities and roles carried out on behalf of the university within and outside organizational boundaries, are in fact cornerstones of universities' functioning that allow for their thriving and need to be valued. This study investigates the complementarity, substitution, and independence effects between the various types of knowledge transfer and academic citizenship in a sample of 752 Italian academics working in business schools. We collected data combining different sources including CVs, publication records, and national datasets. Multivariate path analysis was employed to measure covariances between knowledge transfer and academic citizenship. We contribute to the debate on academic citizenship by showing that public and discipline-based service are complementary to knowledge transfer activities, while institutional service is independent from knowledge transfer. Remarkably, journal papers are research outcomes complementary to most academic activities, and the same holds true for dissemination at workshops and conferences. Running counter dominant rhetoric, this study testifies to the likelihood of faculty being “all-round” professionals. We disclose that activities and roles are influenced by academics’ previous pathways and research grants and discuss the need to value academic citizenship in performance measurement systems.


This article is a rejoinder, some 20 years later, to a JTE editorial, titled “The Problem of Teacher Education.” The previous piece suggested that in response to unprecedented
attention by high-level policy makers to “fixing” the “broken” system of teacher education, teacher education was treated as what I called a “policy problem” during the late 1990s and 2000s. From this perspective, the goal was to identify which of the broad aspects of teacher education that could be controlled by policymakers was most likely to have a positive impact on teacher quality, defined primarily in terms of teachers’ effectiveness at producing a strong workforce for the new economy. In this new article, the author argues that now—during the 2020s—teacher education should be constructed as an “equity problem.” This means acknowledging that, despite many important and powerful multicultural and other initiatives over the last two decades, dominant educational and social policies, practices, and frames coupled with deeply institutionalized and intransigent racism, linguicism, and homophobia continue to produce educational inequality and inequity and continue to impede the recognition and representation of minoritized groups in determining shared educational values and purposes. A short list of contemporary scholarship and preparation programs/projects that construct teacher education as an “equity problem” is included.


This paper examines the effects of a comprehensive performance pay program for teachers implemented in high-need schools on students’ longer-run educational, criminal justice, and economic self-sufficiency outcomes. Using linked administrative data from a Southern state, we leverage the quasi-randomness of the timing of program adoption across schools to identify causal effects of the school reform. The program improved educational attainment and reduced both criminal activity and dependence on government assistance in early adulthood. We find little scope for student sorting or changes in the composition of teacher workforce, and that program benefits far exceeded its costs. We propose mechanisms for observed long-run effects and provide evidence consistent with these explanations. Several robustness checks and placebo tests support our findings.


This response to “How Teacher Education Matters” (2000) notes that the evidence base about the features of teacher education that matter for teacher effectiveness was substantial at that time and has grown stronger since. However, federal policy over the last two decades has reduced support for both preservice teacher education programs and for candidates’ financial assistance, while increasing support for alternative certification pathways that generally omit student teaching and often truncate coursework as well. One-third of teachers in recent years have entered without having completed preparation and are disproportionately assigned to schools serving low-income students and students of color. Meanwhile, recent research emphasizes the critical importance of well-designed clinical experiences with strong mentoring in high-quality settings, connected to applied coursework, as key to effectiveness. Residency programs are one emerging model that combines such experiences with financial
supports, showing promise for recruiting and retaining a diverse, well-prepared set of candidates in high need fields and locations. High-performing countries like Finland and Singapore make these kinds of investments in teacher education routinely and shed light on the policy strategies needed to create a universally strong teacher education system.


That teachers' achievement goals matter for teaching practices is an important premise of teacher motivation research. However, this notion is still little understood, particularly as most studies on this topic use global self-reports of overarching teaching practices. We therefore differentiate between ten teaching practices central to motivating lessons and introduce a diary approach for assessing them. Following a baseline achievement goal questionnaire, 134 German high school teachers completed 670 standardized lesson diaries concerning their subsequent lessons. Multilevel analyses illuminated robust linkages between teachers’ goals and teaching practices and speak to the merits of a diary approach for assessing teaching practices.


Research on teacher churn has produced conflicting conclusions as to its impact on students and teachers. We bring clarity to this work by combining and expanding on analytical approaches used in earlier research to determine how and when different types of churn (i.e., grade, school) impact teacher effectiveness and attendance. Using data from the Los Angeles Unified School District, our results suggest differences based on analytical approach but ultimately show that changing schools and grades may be less of an issue than previously reported. In addition, in the case of school churn, a beneficial match in their new school sites may matter more for teacher outcomes than potential disruptive effects of churn. We conclude with implications for policy and future research.


In the contemporary academy, scholars are expected to deliver highly measurable outcomes in order to build positive reputations for themselves and their institutions. The disclosure of any form of disability, within academe’s predominantly ableist culture, risks raising concerns about a faculty member’s professional competence to achieve expected results. This article is derived from a doctoral study based on qualitative interviews with 16 professors who self-identify as being invisibly disabled. The findings point to a pervasive culture of ableism and disability avoidance in the neoliberal academy. Participants discuss the often-negative impact of disability in their professional lives, which can be exacerbated by intersecting dimensions of differentness attached to their self-identities. The results of this study suggest that for faculty members who disclose an impairment, hoping to have their needs accommodated, the social response within the academy may be inimical, regardless of what policy or employment law requires of
institutional administrators. This is clearly the reason why many participants say they only disclose if it seems absolutely necessary, even though they provide ample evidence that their differentness need not hamper their performance or their contribution to overall productivity.


This paper presents the results of an exploratory sequential mixed methods research project investigating Greek IT teachers’ curriculum ideologies. Following the theoretical framework proposed by Michael Schiro, two different measurement tools were designed and implemented for the identification of teachers’ philosophical beliefs about the curriculum. In the qualitative phase of the study, 33 semi-structured interviews were conducted, in which IT teachers discussed the curriculum designs underlying four different lesson plans, all regarded with the common themes of ‘Robots’ and ‘Robotics’. Based on qualitative data analysis, a survey was administered, using a modified version of Schiro’s original ‘Curriculum Ideologies Inventory’, in which 157 IT teachers participated. The findings of the study illustrated a direct preference towards the well-known, widely recognized and highly promoted ‘Social efficiency’ ideology, embellished with remodelled elements of a ‘Learner-centred’ ideology. Both ‘Social Reconstruction’ and ‘Scholar Academic’ ideologies were perceived as the edges, or the extremes of a continuum, with the first being conceived as too radical and risky, and the second as too traditional and conservative. On the contrary, the study’s results also suggested that the process of measuring teachers’ curriculum ideologies remains a complex and challenging issue and that teachers’ stated curriculum preferences may reflect attributes directly concerned with their professional identity and their experiences in education.


This study focused on the relationship between the administrative behavior of college principals in Imo State, Nigeria and Teachers’ stress. This investigation was necessitated by the fact that high level of job stress has been linked to low level of productivity, and high death rate among college teachers in Imo State. In carrying out the […]


This mixed methods study surveyed 209 K-12 special education teachers about their perceptions of preparedness to teach students with mental health needs that manifest
internally (e.g., quiet distress, withdrawal, excessive worry). We used a construct-modeling approach to develop the survey instrument and establish evidence of validity, reliability, and fairness, and it included both multiple-choice questions, used for descriptive and regression analyses, and open-ended items, coded to identify key themes. Results indicated that special educators generally had low perceptions of preparedness to support students with internalizing needs. In addition, we found that participants possessed critical misconceptions about research-based practices for supporting students with these needs in the school context, and that differences in perceptions of preparedness were associated with teachers’ race and the grade level at which they taught.


Thirty years ago, “Problems, process, and promise: Reflections on a collaborative approach to the solution of the minority teacher shortage” (Goodwin, 1991) offered a perspective on an approach to the minority teacher shortage. That piece represented the start of the author’s life-long work on teacher preparation, with a particular focus on the recruitment and retention of teachers of color in response to growing numbers of students of color juxtaposed against a predominantly white teaching force. Now, several decades later, this article is her opportunity to reflect on those early thoughts, framed by the question: What progress have we made (or not) as a profession, and a society, in addressing this imperative? In pondering this question, this piece returns to the focus of the original article to think anew about problems, process, and promise as conceptual lenses for assessing how far we have come and where we now need to go.


Une répartition équitable des enseignants est un critère primordial pour que chaque enfant puisse développer au mieux son potentiel d’apprentissage, quels que soient le lieu de son école ou de résidence. À Madagascar, le système éducatif fait face à un double défi : le manque d’enseignants qualifiés et des conditions d’apprentissage variant grandement selon les zones géographiques. Le rapport décrit le paysage enseignant à Madagascar et propose des pistes de réflexion pour en améliorer le maillage afin de favoriser l’accès de tous les enfants à une éducation de qualité.


The international instruments of the Teaching and Learning International Survey (TALIS) require national adaptations and translation before data collection processes begin. This paper provides an assessment of the processes used in TALIS 2018, based on an analysis of the documentation available, as well as countries’ descriptions of the processes and challenges undergone during that cycle. The author starts by identifying several positive aspects, highlighting the work of the international contractor, the national centres and national project managers but also suggests areas for improvement. Finally, the paper looks at the new translatability assessment in the current cycle (TALIS 2024) and how it could be even more effective, as well as recommending a series of proposals that could support adaptation and translation processes in future cycles.


The international school sector in Hong Kong makes a substantial contribution to educational provision in the city, employing many expatriate teachers. Wellbeing has taken on increasing prominence in international school discourses, but little research has investigated how the wellbeing of international school teachers is influenced by school-level factors. For the purposes of this study, thirteen expatriate teachers from ten different international schools in Hong Kong were interviewed and the data were analysed thematically. The teachers’ wellbeing was found to be influenced by relationships with students, colleagues and senior leaders, and a pervasive climate of accountability. Teachers felt a sense of social isolation associated with cultural differences, and often did not feel supported by their schools. Teachers’ wellbeing, it is proposed, may be improved by the articulation of a shared vision which focuses on classroom-level interactions, an affiliative climate, and an institutional environment which addresses social isolation and protects teachers against an excessive climate of performativity and accountability.


Robert Mérand est considéré par les historiens de l’éducation physique et du sport comme un acteur incontournable dans l’évolution et la transformation des pratiques de formation pour les enseignants et les entraîneurs au cours de la seconde moitié du vingtième siècle. Cet article se propose de clarifier à la fois le positionnement idéologique de cet acteur sujet à la controverse ainsi que ses options conceptuelles en matière de formation. Avec les stages de « type nouveau », Robert Mérand a contribué à faire entrer dans le champ scolaire des années 1970 une démarche de formation initiée dans le champ sportif dès les années 1940. Portée essentiellement vers l’innovation et la transformation des pratiques, les permanences et les traits caractéristiques de cette approche sont ainsi exposés et permettent d’enrichir l’historiographie dans le domaine
de l’histoire de la formation en éducation physique et en sport sur la base d’archives variées.

This article examines what vice-principals in Singapore experience as constraints to their leadership practice, and how they deal with these constraints, cognisant that role misalignment for vice-principals presents barriers to schools achieving optimal effectivenes. This qualitative study seeks to hear the voices of vice-principals, to uncover the contextual richness of their experiences through interviews with 28 vice-principals. Coding involved a mix of codes from the literature and from the interviews, with member checking of the findings. Vice-principals in Singapore face two main constraints: role ambiguity and role conflicts. These are mainly a structural issue, given the dual expectations of vice-principals to support their principals and to lead. The problems are heightened when there are clashes of values, with vice-principals conflicted between two sources of authority: administrative and professional. Framing the constraints faced by vice-principals under role ambiguity and role conflicts raises these constraints to a theoretical and organisational level. The study proposes a link between the concepts of role ambiguity and role boundaries and illustrates how role ambiguity and conflicts can be disempowering. However, the study also shows that ambiguity need not always be a constraint but can be positive under some conditions.

Study abroad has been seen as a key ingredient in promoting teachers’ intercultural competence. Yet, its effectiveness has been unclear. The objective of the current review was to examine the relationship between study abroad and pre- and in-service teachers’ intercultural competence as well as to analyze potential moderating effects. Based on 16 qualified studies, we found that study abroad was associated with teachers’ intercultural competence, with a small to medium effect (ES = 0.34). The relationship did not differ between pre-service and in-service teachers. Pre-departure, during, and reentry reflective guidance was found to have an influence on the relationship between study abroad and teachers’ intercultural competence. The duration of programs can moderate the relationship, but the moderating role of cultural distance was not significant. The results and further implications for institutions and participants are discussed.


Ce rapport d’impact de l’agence irlandaise Erasmus+ montre que les établissements scolaires utilisent la mobilité Erasmus+ pour le personnel scolaire en vue d’améliorer l’offre éducative proposée aux élèves. Les principales motivations pour favoriser cette mobilité sont : d’offrir des possibilités d’apprentissage qui ne sont pas disponibles en Irlande ; d’améliorer les connaissances et compétences du personnel pour relever les défis actuels ou futurs ; de suivre les derniers développements en matière d’enseignement/apprentissage des TIC et de compétences numériques ; de rechercher des approches pédagogiques créatives ; enfin, de créer des partenariats européens et des activités de collaboration.


The purpose of the study is to examine the ethical dilemmas among mid-level school leaders in the social-ecological context through role-play simulations. We examined simulations involving role-played ethical scenarios and group debriefings among 30 mid-level school leaders from different Israeli high schools and districts during the MA course in the educational leadership program. A qualitative analysis generated an expanded social-ecological model for mid-level school leaders. The model consists of six main layers: individual, interpersonal, organizational, community, public policy, and technology. Each of the layers is divided into sub-categories. The study’s findings reveal the concurrent appearance of the different layers. These findings emphasize the complexity of the role of mid-level school leaders, as they cope simultaneously with a variety of ethical dilemmas characterized by multiple conflicting values. Moreover, the study findings indicated the interpersonal layer to be the most dominant layer, demonstrating mid-level leaders’ dual role as both classroom teachers and as team leaders. This study may contribute toward the development and modification of professional training programs for mid-level school leaders. It may also be helpful when designing strategies to deal with ethical challenges and to strengthen the school’s ethical leadership.


Declines in state appropriations have decreased the ability of public research universities to hire faculty, particularly tenure line faculty. Many universities have grown nonresident enrollment as a substitute for state funding. This study investigates whether faculty hiring was associated differently with nonresident enrollment growth versus resident enrollment growth. Grounded in labor demand theory, to study this relationship we estimate institution-level panel statistical models for the academic years 2002–2003 to 2016–2017. Results indicate that nonresident enrollment growth had a stronger positive association with full-time tenure line hires than resident enrollment growth. In contrast, employment of full-time and part-time non-tenure track faculty was not associated differently to nonresident versus resident enrollment growth. The institutional policy implication is that nonresident enrollment growth may be a viable strategy to finance tenure line faculty hires. However, state policymakers should recognize that many public research universities and most regional public universities face weak nonresident enrollment
demand and are unlikely to compensate for declines in state funding by growing nonresident enrollment.


Motivation is a key component of teachers' professional competences in promoting students' self-regulated learning (SRL). This study combines expectancy-value theory and SRL to explore the associations and interactions of teachers' expectancies, values and costs in promoting SRL and metacognition. Two hundred and eighty teachers participated in this cross-sectional study. Latent structural regression and interaction analyses indicate that expectancies and values are positively related to teachers' promotion of SRL and metacognition. Mixed results were found for teachers' costs and the interaction effects. This study highlights the importance of considering teachers' expectancies, values and costs in promoting SRL and metacognition in research.


Many districts and states have implemented incentives to recruit teachers to low-performing schools, and previous research has found evidence that these incentives are effective at attracting teachers. However, effects on the schools and students these teachers leave behind have not been examined. This study focuses on the spillover effects of recruiting effective teachers to Tennessee's Innovation Zone (iZone) schools. We find the short-term effects of losing these teachers range from −0.04 to −0.12 SDs in student test score gains, with larger negative effects when more effective teachers leave. However, combining both these negative effects in schools teachers leave and the positive effects in iZone schools yields overall net positive effects.


The delicate balance between teaching and research in university makes professional agency an imperative topic to be studied in teacher development research. The importance of teacher agency for professional development and sustainable educational change is increasingly recognized. This interview study highlights lecturers' experiences regarding ways to influence and develop their teaching practices. Lecturers stated that they would like to do more educational development. Findings also indicate that the concept of professional agency should be adapted to the particular context of university teaching. Our study therefore provides a more specific interpretation of professional agency applied to teaching.


Newly qualified teachers (NQTs) need support during induction. However, emphasis on support may be perceived as a deficit approach. Going beyond deficit thinking, this interview study investigates how NQTs in Norwegian upper secondary schools perceive
themselves as a resource in schools as well as how they perceive their simultaneous need for support. The study concludes that NQTs’ opportunities to be a resource are in tension with their need for support. To balance this tension, it is argued that NQTs status as a resource and their need for support should be viewed as a dynamic process offering opportunities for innovation.


This study reports on the development and validation of a new construct of application orientation (AO), which we defined as a vocational orientation concerning the interest for certain principles, values, and activities that are common for university graduates working in applied (i.e., industrial) fields. Using a multi-study program with different samples, the new construct was conceptualized (Study 1) and validated (Studies 2–4). In a qualitative content analysis with N = 102 professionals (all of them having an academic degree mostly in the STEM disciplines), four central facets of applied (i.e., industrial) work were identified (process orientation, customer focus, product focus, and economic focus). In a study with N = 200 university students and professionals with mixed disciplinary backgrounds (i.e., STEM but also non-STEM fields), the AO facets correlated with the RIASEC dimensions (Realistic, Investigative, Artistic, Social, Enterprising, Conventional; Holland, 1997) mostly as expected, and the AO facet product focus was predictive of the preference for applied work settings, supporting convergent validity assumptions. Discriminant validity of the AO facets was largely supported, examining average variance extracted by the AO factors compared to the RIASEC factors. In a known-groups validation study, AO was higher in N = 108 professionals from industry compared with N = 40 scientists (all from STEM fields) working at a university. In a sample of N = 128 early career scientists from the STEM fields, the AO facet product focus predicted applied work behavior in an assessment center.


In recent decades, accountability reforms often impinged on teachers’ professional discretion, in particular devaluing the status of early childhood educators (ECEs). Given this erosion, the present study explores how ECEs renegotiate their image to elevate their professional standing and prestige. In-depth interviews with 72 Israeli ECEs indicated that while enhancing their personal prestige and esoteric knowledge consumption proved ineffective, collective-oriented impression management (IM) was found to be a transformative strategy, successfully fostering status elevation. Contrary to previous research, findings uncovered educators’ IM orientation and drive, which breach the symbolic/knowledge IM dichotomy to explicate ECEs’ status stagnation or elevation.


Schools are placing a heavy focus on providing a safe learning environment. Part of that safe environment is for the school to be a bully-free zone. In order for a school to be bully-free, staff must be able to identify bullying when it happens in order to make appropriate referrals. This article looks at the ability of pre-service teachers to identify bullying, their knowledge about bullying, and their perception of how to help. It is clear from the results of this survey, more attention needs to be spent helping pre-service teachers identify bullying as a means of keeping the school building and the students within it safe.


This study investigated school psychologist’s professional self-efficacy in working with students with autism spectrum disorders (ASD), applied behavioral analysis (ABA), and other general domains. This study recruited 215 specialist and doctoral level school psychologists or school psychology interns. The Applied Behavior Analysis Efficacy Scale (ABAES) was modeled after the Huber Inventory of Trainee Self-Efficacy (HITS). Contributions of training quality, amount of training, and knowledge of ASD to predicting professional self-efficacy measured by the HITS and ABAES were examined. The vicarious experiences during field training were the greatest predictor of self-efficacy in general duties and ABA-based tasks. Mastery experiences were found to predict self-efficacy in ABA based tasks and imaginal experiences were predictive of self-efficacy in general duties. Field experiences were the most impactful aspect of training, but concerns were raised about disparities in experience quality. Suggestions for graduate training of school psychologists are provided.


After 20 years, the research on empathy in teacher education has grown tremendously. This concept originally explored in our article 20 years ago, raised questions regarding the type of empathy and its potential implications for preparing culturally responsive teachers. Though research on empathy has increased 3-fold, teacher educators still struggle in our preparation of effective teachers for all children. One positive step forward in this recent line of research has been the centering of empathy in a more critical frame cautioning us against the concept of inauthentic or false empathy, as well as questioning whether empathy is enough.

Messaoui, A., & Boullé-Loffreda, M. (2022, octobre 17). Quelle place pour la professionnalisation dans l’expertise documentaire des enseignants en IUT? Présenté à Les ressources éducatives pour la formation au prisme de la professionnalisation dans l’enseignement supérieur. Consulté à l’adresse https://hal.science/hal-04055438

Notre proposition interroge les connaissances mobilisées lors de la conception des ressources éducatives numériques à travers le prisme du modèle de l’expertise documentaire - qui définit quatre familles d’activités autour des ressources : concevoir, accéder, organiser et communiquer -, et à l’aude de dix-neuf entretiens d’enseignants en IUT intervenant dans les trois disciplines suivantes : Génie Biologie, Gestion des...


La réforme des IUT mise en œuvre depuis septembre 2021 s’appuie sur le cadre théorique de l’approche par compétences (APC), tel que décrit par Poumay, Tardif et Georges (2017). Parmi toutes les nouvelles mesures associées à cette réforme, l’une d’elles s’adapte particulièrement aux dispositifs hybrides (Charlier et al., 2006 ; Lebrun et al., 2006) : la démarche portfolio. Cette démarche s’inscrit dans la perspective du développement des compétences en jeu dans une activité professionnelle. Elle vise à proposer à travers des temps de rédaction, d’échange et de présentation une procédure qui amène l’étudiant à formuler explicitement son niveau de compétences et à le justifier dans un support. Poumay (2017) définit le portfolio comme un « un dossier (ou classeur, blogue, site) qui permet de collectionner, puis de sélectionner des traces qui témoignent d’un apprentissage et surtout d’un développement. Côté étudiant, la démarche portfolio est un processus continu qui se réalise en grande partie en dehors du temps d’enseignement présentiel. Côté enseignant, la posture transmissive dominante dans l’enseignement supérieur français, s’efface au profit d’une posture d’accompagnement, à même de contribuer à un développement professionnel par « l’élargissement des capacités de penser et d’agir » (Pastré, 2011 p. 112). L’enjeu de notre recherche est de fournir des outils méthodologiques visant à faciliter ces changements et notamment le développement professionnel des enseignants. Nous proposons d’atteindre cet objectif en deux temps. Tout d’abord, nous faisons un recueil des pratiques autour du portfolio et en particulier de l’expérimentation avec l’outil Karuta, ce sera l’objet de cette contribution. Puis, nous proposerons un outil méthodologique d’aide à l’analyse de pratiques enseignantes. L’université de Montpellier expérimente depuis quelque mois le modèle KAPC+ du constructeur de e-portfolio Karuta. L’étude réalisée se déroule dans deux départements d’enseignement : Informatique (Info), et Métier du multimédia et de l’internet (MMI) . Il s’agit d’évaluer la réception de l’outil Karuta par les étudiants et de questionner les pratiques des enseignants qui ont participé à cette expérimentation. Nous avons construit une grille de questionnement pour animer un focus group avec les enseignants concernés autour des graines d’information. Elle comporte 5 questions ouvertes reprenant les graines d’information proposées dans la modélisation d’Éric Lacombe (2017). Dans cette approche, les activités humaines sont catégorisées en neuf graines concrètes (cf. figure 1) qui correspondent à l’ensemble des données qui font sens pour un être humain. Elles sont alignées horizontalement selon les niveaux micro (de 7 à 9), méso (de 1 à 3) et macro (de 4 à 6). Deux intentions (graine 9) principales guident les enseignants : répondre à l’injonction institutionnelle et susciter une démarche réflexive porteeuse de professionnalisation chez les étudiants. En ce qui concerne les actions (graine 8), la démarche portfolio s’appuie sur la mémoire des activités et sur l’évaluation des


There is a need for robust, empirically-validated conceptualisations of teachers’ attitudes towards teaching science, with a view to understand how these might explain their intention to teach science. The Dimensions of Attitudes Toward Science (DAS) theoretical framework suggests that cognitive, affective and perceived control dimensions of teachers’ professional attitudes may be related to their behavioural intention to teach science. While the DAS framework has been employed in numerous studies investigating the attitudes of preservice and inservice teachers, its efficacy remains mostly unknown. The current study employed a cross-sectional survey research design to investigate the question, to what extent does the DAS theoretical framework explain primary preservice teachers’ intention to prioritise teaching science in their future practice? Early childhood and primary preservice teachers (n = 250) at an Australian university completed the DAS instrument prior to completing a science curriculum unit. Structural equation modelling revealed inadequate/poor model fit across multiple indices. Perceived relevance of science education and enjoyment teaching science were statistically significant predictors of preservice teachers’ intention to prioritise teaching science, whereas other attitudinal constructs from the framework were not significant in this research. These findings warrant further attention to theories of behaviour and behaviour change in science education research.

Malgré leur forte présence à tous les niveaux d’enseignement, les vacataires de l’université sont très peu reconnus. En ce printemps 2023, un collectif se mobilise contre leur précarité.


This study reports on the emotion labor (EL) and identity construction of three novice Iranian English language teachers over a three-year period. Drawing on the lens of Community of Practice, we show how identity construction either preceded or followed the temporal and spatial EL that the teachers experienced. We argue that EL is not only externally defined, but it can also interact with teachers’ imagined identities and emerging dynamics to serve as a source of self-invoked mechanism of professional work. We conclude the paper with implications for teacher educators to employ the EL-identity nexus to facilitate teachers’ pre-service and novice-service professionalism.


As an indicator of nations’ prosperity and economic competitiveness, research impacts the mounting roles and requirements placed upon academic researchers. Internationally, researchers are expected to effectively operate in the fast-changing and demanding research environment. Such effectiveness corresponds mainly to their ability to establish international and interdisciplinary collaborations, secure internal and external grants, and most importantly deliver tangible research outputs. As such, this desired research excellence impacts researchers’ academic appointments, recognitions and promotions. Driven by research productivity and pursuit of academic excellence, researchers’ individual autonomy may become restricted. This work is based on (a) an international study exploring research productivity within higher education institutions across 15 countries and (b) a relevant international literature review. The voices of 32 participants portray competencies required from and requirements placed upon academic researchers at their respective universities. Findings show that the role of academic researchers is changing and the requirements pose challenges to researchers’ autonomy. The research productivity quest along with opportunity-driven decisions may not only restrict researchers’ autonomy but also compromise their academic integrity.


Although teacher agency is increasingly recognised by educationists in the Global South, it is not always well understood or accommodated in policy, as experienced with Universal Primary Education (UPE) reforms in Uganda. This empirical study analyses its role on the UPE reforms, the factors that shape it and its implications for curriculum making. The study adopted a qualitative case study of two UPE schools, utilising an ecological approach to understanding teacher agency. It found that UPE teachers in the selected
schools were strongly achieving agency in their daily practice through different forms of ‘resistance’, ‘mitigation’ and ‘cooperation’. Their agency is being shaped by ecological factors comprising of their temporal dimensions mediated by the affordances and constraints of their cultures, structures and materials, with significant implications. The study concludes that stakeholders need to better explicate teacher agency in policy and scholarship.


In this article I describe and reflect on my evolving understandings of the study of mentoring since the publication of the 2005 article in the *Journal of Teacher Education*. My reflective journey suggests stressing two assertions to the study of mentoring. One, that there is a need to develop a more multidimensional and integrated conception of mentoring which draws on integrated models of mentoring and focuses on mentor–mentee/s dyadic and collaborative interactions as units of analysis and interpretation. Two, that we should go deeper into how mentors’ sense-making of being ‘lost or found in translation’ as agents of change operates within complex fields of interaction, at multiple policy, personal and interpersonal levels. Thus, a curriculum for learning to mentor should also include contents related to policy learning. I elaborate on these understandings throughout the paper.


This study investigated associations between kindergarten teachers’ (N = 208) depressive symptoms and students’ (Ghanaian nationals, N = 1490, Mage = 5.8) school-readiness skills (early literacy, early numeracy, social–emotional skills, and executive function) across 208 schools in Ghana over one school year. Teachers’ depressive symptoms in the fall negatively predicted students’ overall school-readiness skills in the spring, controlling for school-readiness skills in the fall. These results were primarily driven by social–emotional skills (r = .1–.3). There was evidence of heterogeneity by students’ fall skill levels; teacher depressive symptoms predicted more negative spring overall school readiness for children who had higher fall school-readiness skills. Findings underscore the importance of teachers’ mental health in early childhood education globally, with implications for policy and practice.


Background and Aims Traditionally, research in educational psychology has neglected the physiological foundations of motivation, emotion, engagement, and learning. Recent studies have made substantial progress to more fully consider physiological processes, as documented in the contributions to this special issue. In this commentary, I summarize their findings, discuss strengths and weaknesses, and outline directions for future research. Results The studies showcase how physiological indicators can be integrated in research in educational psychology. The resulting findings document links between cardiovascular, electrodermal, and hormonal parameters as well as physical activity and a range of mental and behavioural processes in educational settings. Together, they attest to the critical role of physiological processes in students’ and
teachers’ engagement. However, most of the studies used small samples and correlational designs, and not all of the findings were consistent. Future Directions To inform theory and practice in evidence-based ways, we need to make further headway in building a cumulative, coherent knowledge base. To this end, it may be helpful to more precisely specify the status of physiological indicators; secure construct symmetry of physiological, mental, and behavioural variables; use causal designs and within-person analysis; include sufficiently powered samples of participants and measurement occasions; employ multiple indicators and assessments to increase reliability and specificity; define the time windows and lags of assessments that are suited to capture physiological processes and their functions; and consider the role of socio-cultural contexts.


In academia, plagiarism is considered detrimental to the advancement of sciences, and the plagiarists can be charged with sanctions. However, the plagiarism cases involving three rectors of universities in Indonesia stand out, as they could defend their stand for not committing academic misconduct despite evidence found. By analyzing the three rectors’ cases, the present study aims to answer how power relations take a role in plagiarism discourse in Indonesia, particularly in determining what is considered academic misconduct and what is not. By employing critical discourse analysis, we found that when the accusation of plagiarism appears during rectorial elections, the accused could equivocate that the accusation was meant to undermine them as a political opponent. When the accused plagiarists win the election, they have more power to deny and tackle the accusations of plagiarism. The findings indicate that plagiarism issues can be politicized, in which by those in power it can be used as a tool to undermine their political opponents, whereas the accused plagiarists can claim that the actual problem is personal and not about plagiarism. It is also shown that in the real context, whether something is called plagiarism or not is subject to interpretation by those in power.


This article explores how organizational mobility and foreign nationality affect a researcher’s chances of an internal career promotion in university systems that do not have rules preventing inbreeding and where teaching occurs mostly not in English but a local language. As a case study, we have examined the Flemish university system, the Dutch speaking part of Belgium, and developed expectations on the chances of promotion for mobile and foreign researchers compared to non-mobile and nationals. We use data for all postdoctoral and professorial staff between 1991 and 2017, for a total of 14,135 scientists. We calculated the chances of promotion with a competing risk model to take time into account and to disentangle the probability of two mutually exclusive
risk events: promotion and leaving the university. The results show that international mobility and foreign nationality reduced the chances of promotion in the same university, and that mobile and foreign scientists were also more likely to leave any given university. These effects were particularly strong at an early stage: in the study period, 21.9% of non-mobile national postdocs became professor compared to just 1.2% of internationally mobile foreigners. These results would suggest that internationally mobile and foreign scientists struggle to advance in universities that lack rules preventing inbreeding and with little opportunity to teach in English.

We investigated how texts can be part of a Methodology of Teaching Physics course in a Brazilian university and its relationship with the history, reading conception and values of a regent’s professor. We also investigated the students’ perceptions about the variety of texts proposed and the practice of reading in physics education. We conducted observations of the classes and an individual interview with the professor of this course. The results show that, based on this professor’s perceptions of the educational needs of these students, he promotes actions that contribute to the education of physics teachers as readers of a variety of texts.

Instructional leadership concerns the ongoing deep involvement of school principals in direct efforts to improve learning and achievement for all students. The goal of this study was to explore principals’ perceptions regarding the knowledge required for instructional leadership. Study participants were 38 Israeli school principals, representing the population of Israeli principals in terms of sex, age, seniority, academic degree and school level. Data were collected through semi-structured interviews. Data analysis classified the statements of the study participants according to Shulman’s seven categories of knowledge needed for effective teaching. The findings suggested that General Pedagogical Knowledge plays a key role in instructional leadership, while somewhat reducing the importance of Leadership Content Knowledge. Implications and further research of this study are discussed.

Truth and its consequences in teacher education form a web of interconnected relationships that align our attentions with our intentions. This article responds to an essay I wrote twenty years ago, and I examine the assumptions, questions, and possibilities in the frame of a more modern context. While many of the ideas remain salient, an examination of the truths I explained and the consequences I examined have shed new light on what truths and consequences for teacher education have unfolded in the last two decades.

In this article, Sleeter reflects on her previous article, “An Invitation to Support Diverse Students through Teacher Education.” She argues that her earlier recommendations are still valid, but changing conditions have lent them greater urgency. Research has made clear the positive impact of culturally relevant curriculum and pedagogy on students of color. Although White teachers still dominate the profession, White students are no longer in the majority. But schools are still highly racially segregated, with unequal access to resources, and school closures coupled with increased online education have only widened racial gaps. Because of these conditions, she argues that public education needs federal leadership.


Physically active learning (PAL) has been advocated as a strategy for enhancing young people’s movement and learning. To understand how PAL is accepted, adapted, and used by teachers, this study interviewed 16 teachers. The concept of sensemaking and thematic analysis was used in the study. The findings illustrate that teachers made sense of PAL through the lens of professional identity, using PAL to vary their teaching and include students of varying abilities in learning. We conclude that teachers may be more likely to interact with PAL if primacy is given to its educational purposes.


In recent years, many countries have revised their curricula to improve scientific inquiry skills and to develop the engineering practices of K-12 students, mostly within the context of science topics. However, there are not enough studies in the literature on what the content of science units integrated with engineering practices should be. There is also a gap in the literature regarding the kind of professional development (PD) training teachers should receive. Considering this gap, for the current study, pre-service science teachers (PSTs) developed Community Based Engineering (CBE)-Enriched Science Units within the context of a PD program. Then, they implemented these units in middle school science classes or science applications classes. The professional development of the pre-service teachers during these units’ development and implementation process was closely monitored and the obtained findings were presented to promote both science teacher education and engineering education. In this way, the knowledge, beliefs, attitudes, and classroom practices of PSTs regarding CBE-enriched science teaching, and their perceptions of middle school students’ learning outcomes were investigated and revealed. Data were collected from 14 volunteer PSTs in a public university in Istanbul, Turkey. The data collection tools were semi-structured interviews, developed
units, and reflection papers. As a result, 3 cases came to the fore: participants whose CBE-enriched science teaching self-efficacy increased (4 PSTs), remained unchanged (8 PSTs), and decreased (2 PSTs). Findings are discussed using the Interconnected Model of Professional Growth.

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There is worldwide agreement that the understanding of the Nature of Science (NOS) is a critical component of scientific literacy. However, evidence indicates that both pre-service and in-service science teachers hold naïve views about NOS. Even so, the characteristics of pre-service teachers that influence their learning of NOS are not fully described. In this context, the goal of this study is to connect the understanding of NOS of pre-service teachers with a different disciplinary training (second year of biology education programme versus first year of elementary-education programme). The research is quantitative with a quasi-experimental design. To assess the understanding of NOS in students’ science teachers, an adapted version of the VNOS-D + instrument was applied before and after the intervention. Both groups received three NOS teaching sessions using History of Science as context and implementing an explicit and reflective instructional strategy, centered on students. The main results of this study indicate that both groups significantly improved their understanding of NOS, and in the same magnitude, after the intervention. In addition, the understanding of some of the aspects of NOS improved more easily than others. Finally, there is a discussion about the contribution of this study to the pre-service science teacher’s education.


The present study adopted the daily diary technique and examined the relationships among teachers’ perceived student disengagement, emotional labor, and emotional exhaustion. The data included 587 Canadian teachers’ 4,084 diary survey responses. Multilevel structural equation modeling was conducted at both the daily and teacher levels. At the daily level, perceived student disengagement was associated with teachers’ genuine expression and faking of negative emotions. At the teacher level, early-semester emotional exhaustion corresponded with perceived student disengagement and teachers’ hiding of negative emotions, which yielded even worse late-semester emotional exhaustion. Perceived student disengagement was also related to teachers’ genuine expression of negative emotions.

This five-month, two-wave longitudinal study investigated the direct associations between teachers’ utility values and quitting intentions, as well as the indirect associations between utility values and teacher outcomes via perceived person-organization fit. The sample included 1,086 Canadian teachers. Results from the latent change structural equation modeling suggested that teachers’ social and personal utility values at the beginning of the semester were directly and indirectly associated with their quitting intentions, as mediated by perceived person-organization fit. Analyses into the pattern of changes further found that increased social utility values corresponded with increased fit perceptions, yielding decreased intentions to leave current schools.


School–university partnerships bring meaningful learning opportunities for teachers, and empowering teachers with leadership roles has become an important approach for teacher learning. This study shows how teacher leaders exercised brokerage practice to support teacher learning in one small-scale school–university partnership in China based on interview data from a university expert, three school management team members, eight master teachers and backbone teachers as teacher leaders, and nine teachers. The study discusses the significance of expanding the forms of teacher leadership with brokerage practices, examines the combination of professional and managerial roles embedded within teacher leaders’ brokerage, and addresses the issue of unequal distribution of learning opportunities. Implications are also discussed.


Although research has revealed many factors that predict faculty turnover, the literature is often limited by using intent to leave as a proxy for actual turnover, and further by consolidating faculty who leave institutions with faculty who leave the occupation. We resolve these limitations and advance the faculty mobility literature by studying faculty who actually left their higher education institution for both academic and non-academic jobs. Drawing on a survey of 773 departing faculty respondents, we employed structural topic modeling and logistic regression to understand whether or not academic and non-academic leavers had statistically different reasons for leaving. Structural topic modeling revealed 12 dominant reasons why faculty leave, but none of these reasons were unique to those who left academia. Regression results show that gender, tenure status, and salary increase were significant drivers of leaving the academic profession. We provide implications for future studies of faculty departure and for faculty retention.


Teachers’ professional identity has an important impact on the career development of university teachers. The returnee teachers have both domestic and overseas study experience, so they show particularity in professional identity in China. This study adopted the mixed-methods approach to investigate returnee teachers’ professional identity and the influencing factors. In the quantitative part, it took some returnee teachers from
universities in China as samples, and in the qualitative part, it carried out one-to-one interviews with 8 returnee teachers. The results showed that the overall level of professional identity of returnee teachers was relatively high. Specifically, returnee teachers had the highest degree of identity in professional behavior inclination and the lowest degree of identity in the sense of occupational belonging. Besides, we found the professional identity of returnee teachers was affected by professional emotion, professional ability, professional expectation, professional environment and material conditions. Among them, material conditions and professional environment have greater influence on the professional identity level of returned teachers. We discuss the implications of these findings for research and practice in an educational context.


This paper provides an analysis of how work on practice-based teacher education has evolved and remained the same since 2012.


On the basis of interviews with 20 Chinese EFL teachers and text-mining analysis, this study investigates the reconstruction of language teacher identity during the COVID-19 pandemic in terms of context, agency, and practice. The word co-occurrence analysis and collocation statistics with modal verbs coded by KH Coder 3.0 demonstrate that English teachers face two types of identity reconstruction processes: (a) situational context related to various changes and (b) interactional context that causes communication difficulties with students. How teachers enact agency is influenced by their teaching experience. Through practice, teachers reconstruct their identity as solution seekers, positive learners, and confident professionals.


This article explores the methodological and ethical challenges of doing qualitative fieldwork in an authoritarian state. Drawing on a long-term project conducted in China, I discuss how my interaction with the participants was mediated by the pervasive state power. This phenomenon adds a new layer to the question “can the subaltern speak,” and calls for a refined understanding of the researcher-participant relationship. Borrowing insights from recent anthropological studies on the state and Abrams’s state effect theory, I propose to move away from a static, western centric, and territory-based conceptualization of the state, and treat it as a culturally and historically specific structuration, in which researchers and participants are engaged. In this way, researchers can intentionally work against the normalizing state power yet still work with their participants. This approach leads to a more deliberate understanding of the methodological and ethical responsibilities of researchers in the process of structuration.

The efficiency of schools can be defined and measured as the ratio between the outputs produced (for example, achievement and competences) and the inputs utilized (human and technical resources). Technology holds the promise of increasing the efficiency of schools’ operations, although empirical evidence on this is still scarce. This paper explores whether the ICT availability and use in 2757 schools from 10 Latin American countries are associated with higher efficiency, relying on PISA 2018. A method based on a double-bootstrap Data Envelopment Analysis (DEA) is employed. The results highlight that the availability of ICT is positively correlated with higher school efficiency. This evidence is relevant for policy implications in setting the post-COVID priorities for educational systems in the region.


Digital competence among business research students is heralded as a pragmatic expression of the quality of research output and effective collaboration. Self-Directed Learning (SDL) is a resourceful personal and professional development technique, yet there is minimal research on SDL for digital competence among business scholars. This study investigates the behavioral aspects of business research students to engage in the SDL mechanism for digital competence. A hypothesis-based research framework was outlined through Perceived Usefulness (PU), Facilitating Conditions (FC), Self-Directed Learning Readiness (SDLR), Personal Innovativeness (PI), Computer Self-Efficacy (CSE), and Behavioral Intention (BI). Data were collected through a quantitative survey and then analyzed by the novel multi-analytical approach, i.e., Partial Least Squares Structural Equation Modelling (PLS-SEM) to test hypotheses, Artificial Neural Network (ANN) to manage the non-linear associations in the model and to rank the predictors, and Importance Performance Map Analysis (IPMA) to assess the variables through importance and performance chart. Data analysis showed that all variables were significant predictors of SDL behavior where PI and CSE were prominent model antecedents. The study’s contributions towards knowledge included the practical implications for boosting digital competence among young researchers, providing the in-depth analysis of antecedents of SDL behavior, and validation of multi-analytical tools in technology integration literature.


Technological Pedagogical Content Knowledge (TPACK) describes a significant qualification for teachers and pre-service teachers to address the integration of contemporary technological advancements into lessons that adequately reflect the subject matter for a diverse set of students. Various methods and models have been identified to develop and evaluate the TPACK of teachers and pre-service teachers. This case study aimed to enrich and deepen the descriptors of the Niess (2013) model to better assist pre-service mathematics teacher educators as they redesign their teacher
education programs for developing the TPACK needed in this digital age. Data were collected from semi-structured interview forms, lesson plans, micro teaching experiences, and interviews. The study group comprised seven volunteer mathematics pre-service teachers in the final term of their undergraduate education program. Analysis of the data generated a revised model to guide the TPACK development of pre-service mathematics teachers.


Potential benefits of learning analytics (LA) for improving students’ performance, predicting students’ success, and enhancing teaching and learning practice have increasingly been recognized in higher education. However, the adoption of LA in higher education institutions (HEIs) to date remains sporadic and predominantly small in scale due to several socio-technical challenges. To better understand why HEIs struggle to scale LA adoption, it is needed to untangle adoption challenges and their related factors. This paper presents the findings of a study that sought to investigate the associations of adoption factors with challenges HEIs face in the adoption of LA and how these associations are compared among HEIs at different scopes of adoption. The study was based on a series of semi-structured interviews with senior managers in HEIs. The interview data were thematically analysed to identify the main challenges in LA adoption. The connections between challenges and other factors related to LA adoption were analysed using epistemic network analysis (ENA). From senior managers' viewpoints, ethical issues of informed consent and resistance culture had the strongest links with challenges of learning analytic adoption in HEI; this was especially true for those institutions that had not adopted LA or who were in the initial phase of adoption (i.e., preparing for or partially implementing LA). By contrast, among HEIs that had fully adopted LA, the main challenges were found to be associated with centralized leadership, gaps in the analytic capabilities, external stakeholders, and evaluations of technology. Based on the results, we discuss implications for LA strategy that can be useful for institutions at various stages of LA adoption, from early stages of interest to the full adoption phase.


Ce travail de veille scientifique (VSTICE3) a bénéficié d’un financement de l’Agence universitaire de la francophonie. Menée dans les pays du programme APPRENDRE de l’AUF, elle a montré plusieurs points: • La création par l’AUF de réseaux d’échange du débit des années 2000 à 2012 a eu des conséquences à moyen terme, tant en termes de soutenance de thèse que publications dans des revues. Il y a eu un mouvement d’amorçage dans la mesure où une fraction des nouveaux docteurs dirigent ensuite à leur tour des thèses de doctorat sur ce type de sujet. • Nous avons aussi repéré ce qu’on pourrait appeler un signal faible: l’émergence au Sud de revues rattachées à des universités et dont on pense qu’elles pourront publier des travaux sur les technologies en éducation. • Il est aussi apparu que la situation de la recherche en Afrique sud-saharienne subit les mêmes contraintes qu’ailleurs: pression à publier sur les chercheurs,
apparition de revues pédiatriques... On note également le développement de la présence de plateformes et d’acteurs anglophones


Nowadays, the need for e-learning is amplified, especially after the Covid-19 pandemic. E-learning platforms present a solution for the continuity of the learning process. Learners are using different platforms and tools for learning. For this, it is necessary to model the learner for the personalization of the learning environment according to his needs, and characteristics, which will allow having a more effective and efficient environment. The existing literature maintains that the learner model represents the basis and the key to adaptation. To achieve this goal, we propose a new adaptation aspect of the learner model by integrating relevant information such as learning style, domain-related data, assessment-related data, and affective data. It has advantages in terms of precision as it solves the problem of management uncertainty of some parameters. Our approach suggests that the combination of stereotype method, fuzzy logic, and similarity techniques is an appropriate approach for initializing and updating the learner model for learning personalization.

Quels usages du numérique des enseignants et enseignantes ? Pour la cinquième année, l’académie de Paris a réalisé un sondage sur les usages du numérique auprès de tous les enseignants du second degré. Les quelques 3103 réponses (18,5% de taux de réponses) constituent une photographie des usages pour apprécier leur évolution depuis 2014. « C’est maintenant acquis,…

Le rapport cherche à identifier : 1. comment l’Arabie saoudite a réussi à assurer la continuité pédagogique pendant la crise du COVID-19; 2. quels ont été les points forts de la réponse du pays à la pandémie; 3. quelles sont les possibilités d’amélioration de l’enseignement à la suite de cette expérience d’enseignement avec le numérique et d’enseignement à distance. Parmi les clés du succès, il convient de citer l’innovation à tous les niveaux, en particulier chez les enseignants, le succès de la communication avec les familles ainsi que l’engagement de ces derniers.

Recent innovations in the field of Artificial Intelligence raise epistemological issues regarding the nature of knowledge and the reproducibility of human intelligence, with some uncertain implications about the ambiguity of their application and their future developments. This reflection aims at bringing to light some problems related with the incipient use of these tools in the area of scientific knowledge and thinking.

Research on online learning effectiveness has experienced a shift towards focusing on learner characteristics or differences. However, little attention has been paid to learners’ personality traits, especially those that highly match with the environmental characteristics of online learning. Guided by recent active learning approach and Model of student differences for learning in online education, this study adopts proactive personality (a dispositional tendency to be active, goal-oriented, and not constrained by environmental forces) as a key predictor and examines whether its relationship with online learning performance is mediated by learning engagement as a multidimensional construct. Using a multi-method approach (including self-reports, log file analysis, and content analysis), this study collected both subjective and objective measures of learning engagement from a total of \( n = 322 \) undergraduates. Results showed that proactive personality was positively associated with online learning performance. In addition, this association was mediated by all subjective and certain objective measures of learning engagement. Findings contribute to understanding the impact of proactive personality on online learning performance and the interplay of learners’ individual factors and learning engagement factors in online learning environments. This study recommends promoting learning engagement to realize learners’ online success, especially for those with low levels of proactive personality.


Artificial intelligence (AI) has been widely adopted in higher education. However, the current research on AI in higher education is limited lacking both breadth and depth. The present study fills the research gap by exploring faculty members’ perception on teaching AI and data science related courses facilitated by an open experiential AI platform. Specifically, two focus groups are conducted among computer science and non-computer science faculty members to gauge their perception on the integration of AI in an experiential learning platform to teach data science, as well as their perception on AI powered data science curriculum in higher education. Findings reveal three major themes which are defining data science, assembling interdisciplinary teams, and building platform for connection. The study has both theoretical and practical implications.


In higher education, many universities in Taiwan let college students learn excel in a self-directed way. The current axle of the Excel curriculum mainly relies on self-directed learning. In the study, we designed the digital game “Legendary Wizard Excel” and took a certified Excel textbook as the research tool. The game we designed integrated the role-play with cognitive scaffolding to help learners learn Excel skills, whereas the textbook we used was “Excel Expert” in the Microsoft Office Specialist. We compared the
Learning Effectiveness, Flow Status, and Technology Acceptance Model with 187 college students between two tools, and found that: (1) The game reached a high Technology Acceptance Model; (2) Both groups of learners had significant improvements in learning effectiveness and were engaged in the activity; (3) On learning effectiveness, learners in game-based learning groups achieved higher than learners in textbook groups; (4) Learners in game-based learning groups engaged better in the activity than learners in textbook groups. Therefore, in the future, we looked forward to bringing our results to higher education levels and workplace training to enhance the Excel skills.


Researchers and practitioners are paying increasing attention to blockchain’s potential for resolving trust, privacy, and transparency-related issues in smart education. Research on educational blockchain is also becoming an active field of research. Based on 206 studies published from 2017 to 2020, we identify contributors, collaborators, applications, and research topics using topic modeling and bibliometrics. Results indicate that currently, studies on the educational blockchain are mostly published in computer science conferences, with few in educational technology journals. Asian countries/regions (e.g., China and India) and institutions (e.g., University of Raharja) are active in this field. Countries/regions and institutions from the same regions tend to have close collaborations. Blockchain is mainly used to facilitate online testing and learning, education data mining and analytics, resource sharing, educational record verification and authentication, data management and storing, administration management, education/discipline of children, and college crowdfunding. Based on the results, we highlight the need to integrate artificial intelligence to enhance scalability and security and to facilitate justification and personalization of blockchain solutions based on accumulated big data to capture abnormal behaviors. This study assists researchers and practitioners in understanding educational blockchain research and becoming aware of the hot topics and future directions.


L’objectif de cette thèse est d’évaluer les effets de la pratique précoce de la programmation visuelle avec Scratch sur les performances en mathématiques, l’anxiété en mathématiques (Ashcraft & Kirk, 2001; Ashcraft & Krause, 2007; Ashcraft & Moore, 2009; Hembree, 1990), le sentiment de compétence en mathématiques (Harter, 1985) et la motivation autodéterminée en mathématiques (Guay et al., 2010; Ryan & Deci, 2000) dans le cadre du projet Expire (Expérimenter la Pensée Informatique pour la Réussite des Élèves, projet e-fran 2017). Ce projet fait écho à la demande internationale d’introduire la pensée informatique dans les programmes scolaires (Bocconi et al., 2016 ; Tang et al., 2019; Wing & Stanzione, 2016) afin de doter les élèves des habiletés numériques indispensables à l’insertion dans une société de plus en plus numérique et favoriser leurs apprentissages, particulièrement en mathématiques, en raison de la proximité des processus cognitifs impliqués dans ces deux domaines (Scherer, 2016 ; Shute et al., 2017). La programmation, considérée comme un moyen d’enseigner, évaluer et exposer les étudiants à la pensée informatique, est massivement introduite au sein des programmes
de mathématiques au primaire, comme c’est le cas en France (Bocconi et al., 2016). Nous testons les hypothèses que les performances ainsi que les variables conatives citées précédemment seront positivement influencées par l’utilisation de la programmation en classe. Pour cela nous avons mis en œuvre un ECR auprès de 2472 élèves du bassin grenoblois en CM1 et CM2, recrutés en 2017-2018. Le groupe expérimental, « programmation » réalise des activités de programmation sur trois séquences d’apprentissage mathématiques tandis que le groupe « contrôle » met en œuvre une pédagogie classique d’apprentissage pour ces mêmes séquences. Des mesures conatives en amont et en aval de l’expérimentation ainsi que des scores de réussite en mathématiques ciblés sur les notions travaillées ont été prises en pré et post-test pour chaque séquence. Des analyses multi-niveaux nous ont permis de rendre compte d’une détérioration des apprentissages au cours des différentes séquences sous l’effet de la pratique expérimentale. Nous n’avons montré aucun effet de cette pratique sur nos variables conatives.


Dans sa chronique, Bruno Devauchelle revient sur l’enquête de la DANE Paris publiée récemment. Pour le chercheur, spécialiste de la question du numérique en éducation, cette enquête « confirme une lente progression, mais elle est bien davantage du côté des enseignants, en et hors classe, que du côté des élèves, plutôt hors classe que dans ». C’est...

This research examined the imperatives of pedagogical updates for Mathematics education professionals: The digital technology sensibility in a resilient world. What informed this research is the need for considering better ways of impacting mathematical knowledge and skills in students as the usages of Mathematics are geometrically increasing in this world of Technological advancement. Quasi-experimental 


Digital capabilities have become increasingly important in this digital age. Within a university setting, digital capability assessment is key to curriculum design and curriculum mapping, given that digital capabilities not only can help students engage and communicate with others but also succeed at work. To the best of our knowledge, however, no previous studies in the relevant literature have reported the assessment of digital capabilities in courses across a university. It is extremely challenging to do so manually, as thousands of courses offered by the university would have to be checked. In this study, we therefore use machine learning classifiers to automatically identify digital capabilities in courses based on real-world university course rubric data. Through text analysis of course rubrics produced by course academics, decision makers can identify the digital capabilities that are formally assessed in university courses. This, in turn, would enable them to design and map curriculums to develop the digital capabilities of staff and students. Comprehensive experimental results reveal that the machine learning models tested in this study can effectively identify digital capabilities. Among the prediction models included in our experiments, the performance of support vector machines was the best, achieving accuracy and F-measure scores of 0.8535 and 0.8338, respectively.


Cyberbullying is a significant public health concern that has been associated with negative outcomes. The pandemic has increased the reliance on technology in the classroom; thus, research exploring cyberbullying in the classroom is even more important. Furthermore, it is important to understand teachers' perceptions of cyberbullying to inform efforts to support teachers in addressing cyberbullying. With a nationally representative sample of 174 teachers in the United States, a series of questionnaires were administered to investigate teachers' perceptions of cyberbullying, their preparedness to address cyberbullying, perceptions of effective strategies to address cyberbullying and whether social-emotional learning programs used in their schools incorporate digital citizenship skills. Results indicated little change in the rates of
cyberbullying in schools, but that teachers reported a need for training and professional development to best support them on this topic. Implications related to teacher educator preparation programs and school based interventions targeting cyberbullying are discussed.


Reading is one of the crucial aspects of the learning process. The learning efficiency depends on the motivation and involvement of students. The paper aims to determine whether the developed online course enhances student motivation and engagement in contemporary American literature. For this purpose, questionnaires were used. The sample consisted of 126 students enrolled in Yulin Gaoxin Secondary School, who had English proficiency at a high enough level to read English literature in the original language. Before and after the course, the Reading Motivation Questionnaires test was administered, with its scores validated using Student’s t-test for dependent samples. Significant progress is observed in the internal and social components of motivation (23–25%), as well as in the Engagement category (31%). The course also positively affected learning effectiveness. None of the participants scored less than half of the possible points for the course assignments. Most children obtained high (95–119 points) and very high scores (120–140 points). This finding demonstrates the suitability of the tools used (videoconferencing, learning management systems, discussion forums, and interactive exercises) in online learning when studying modern literature. The research findings are of interest, first of all, to instructors who adopt technological innovations in their lessons or want to motivate students to read. Second, school administrators and education sector officials can draw information from the findings for corrective action. Third, software developers may be inspired by the data and create new technology solutions.

Gélin, O., & Régibier, L. (2022). *Les outils privilégiés de la classe à distance - Note de synthèse*. Consulté à l’adresse [https://hal.science/hal-03930174](https://hal.science/hal-03930174)


We provide evidence from a randomized controlled trial on the effectiveness of a novel, 100-percent online math tutoring program, targeted at secondary school students from highly disadvantaged neighborhoods. The intensive, eight-week-long program was delivered by qualified math teachers in groups of two students during after-school hours. The intervention significantly increased standardized test scores (+0.26 SD) and end-of-year math grades (+0.48 SD), while reducing the probability of repeating the school year. The intervention also raised aspirations, as well as self-reported effort at school.


Educationalists’, researchers’, and policy makers’ work on children’s digital resilience has marginalised the role of the broader context within which digital resilience is constituted,
experienced and derived. We aimed to address this lacuna by exploring how pre-teen's digital resilience operates as a dynamic socio-ecological process. Addressing this aim, we employed participatory methods and thematically analysed eight focus groups with children aged 8–12 years (n = 59) and 20 telephone interviews with parents/carers and teachers of 8–12-year-olds and internet safety experts to examine this issue. We used purposive sampling and collected data over three months (January-March 2020). Our analysis constructed a matrix of main themes, constituent, and cross-cutting sub-themes. By placing this within a socio-ecological framework, we illustrate how pre-teens’ digital resilience operates within and across differing four levels (individual, home, community and societal) and four domains (learning, recognising, managing, and recovery). The paper advances the literature by illustrating how children can be supported to build and show digital resilience within and across different levels and domains. It is argued that digital resilience should be re-conceptualised as a collective endeavour involving children at an individual level, parents/carers within home environments, youth workers, civil society, teachers, and schools at a community level, along with governments, policymakers, and the education system and internet corporations at a societal level. We conclude by providing practice and research recommendations guiding those supporting children to facilitate opportunities to thrive online.


The term ‘digital resources’ is increasingly used in educational research to describe the specific knowledge and skills that constitute teachers’ professional digital competence. Educational policy documents, including the European Framework for the Digital Competence of Educators (DigCompEdu), deploy the term to reaffirm teachers’ need for special skills in using digital resources. However, educational research literature presents inconsistent views of the term, restricting its effective use in further research and the promotion of associated skills among pre-service and in-service teachers. To clarify the term ‘digital resources’ and support future research related to its application especially in empirical research on teachers’ professional digital competence, this systematic review aims to analyse the definitions of digital resources as a scientific term in 23 articles and to examine and compare the facets and aspects of digital resources. Finally, we derive a definition from the various perspectives and discuss the implications for the definition of digital resources as an aspect of teachers’ professional digital competence.


COVID-19 has caused the overnight migration of learning and teaching to online platforms and has significantly impacted students’ learning opportunities and experiences worldwide. The results of emergency online learning have heavily relied on students’ abilities to exercise agency in maintaining active motivation and engagement with online learning. Despite the wide application of motivation theories to diverse contexts, how to adapt motivation theories to develop online learning effectively and sustainably in complex and situational online learning environments is still under-investigated. Using a large sample of 14,935 postgraduate students from 31 universities in
China, this study examined the effects of student motivation and engagement on students' academic achievement in the COVID-induced online learning anchored by the theoretical perspective of self-determination theory. This study made contribution to the self-determination theory by extending it to the complex emergency situation and supported its main argument that online emergency learning environments satisfying students' psychological needs of autonomy and competence promote optimal motivation, positive engagement and academic achievement. This study also contributed to reveal the 'sophisticated' nature of relatedness satisfaction in the case wherein its specific effects depend on the cultural configuration of the contexts and on the specific types of engagement. Given the fact that COVID-19 continues to be a public challenge throughout the world, implications for improving the quality of online teaching in the future were also discussed.


The COVID-19 pandemic has interrupted education institutions in over 150 nations, affecting billions of students. Many governments have forced a transition in higher education from in-person to remote learning. After this abrupt, worldwide transition away from the classroom, some question whether online education will continue to grow in acceptance in post-pandemic times. However, new technology, such as the brain-computer interface and eye-tracking, have the potential to improve the remote learning environment, which currently faces several obstacles and deficiencies. Cognitive brain computer interfaces can help us develop a better understanding of brain functions, allowing for the development of more effective learning methodologies and the enhancement of brain-based skills. We carried out a systematic literature review of research on the use of brain computer interfaces and eye-tracking to measure students' cognitive skills during online learning. We found that, because many experimental tasks depend on recorded rather than real-time video, students don’t have direct and real-time interaction with their teacher. Further, we found no evidence in any of the reviewed papers for brain-to-brain synchronization during remote learning. This points to a potentially fruitful future application of brain computer interfaces in education, investigating whether the brains of student-teacher pairs who interact with the same course content have increasingly similar brain patterns.


As artificial intelligence (AI) technologies are increasingly pervasive in our daily lives, the need for students to understand the working mechanisms of AI technologies has become more urgent. Data modeling is an activity that has been proposed to engage students in reasoning about the working mechanism of AI technologies. While Computational thinking (CT) has been conceptualized as critical processes that students engage in during data modeling, much remains unexplored regarding how students created features from unstructured data to develop machine learning models. In this study, we examined high school students' patterns of iterative model development and themes of CT processes in iterative model development. Twenty-eight students from a journalism class engaged in refining machine learning models iteratively for classifying negative and
positive reviews of ice cream stores. This study draws on a theoretical framework of CT processes to examine students’ model development processes. The results showed that students (1) demonstrated three patterns of iterative model development, including incremental, filter-based, and radical feature creation; (2) engaged in complex reasoning about language use in diverse contexts in trial and error, (3) leveraged multiple data representations when applying mathematical and computational techniques. The results provide implications for designing accessible AI learning experiences for students to understand the role and responsibility of modelers in creating AI technologies and studying AI learning experiences from the angle of CT processes.

The focus on challenges related to digital distance learning has become particularly relevant since educational institutions had to close due to the Covid-19 pandemic. Teaching related to operationally oriented professions, such as e.g., aviation and nautical represent educations that have faced extensive challenges. Education portfolios for such professions contain subjects that require transfer of competence based on experiential-based learning leading to in-demand knowledge, skills, attitudes, and sustainable understanding. Such operative-oriented competence is difficult to acquire through exclusively digital distance learning. This paper highlights challenges related to the operationally oriented topics of maritime education and training (MET). Traditionally, operationally oriented learning associated to MET has been carried out based on “on-scene” transfer of experience i.e., inexperienced sailors have gained experience by being guided by experienced sailors. Modern MET has evolved towards more passive « off-scene » learning activities. As a replacement for reduced « on-scene » learning activities, modern simulator and laboratory-based learning platforms have been developed within maritime and other operationally oriented educations. Learning platforms like these are probably the most challenging to find digital distance teaching substitutes for, regarding the Covid-19 pandemic closure. The purpose of this paper is to show whether the rapid change of learning context due to the pandemic closure affected the instant knowledge displayed in exam grades. In addition, the paper addresses possible challenges related to the loss of experience-oriented simulator and laboratory-based teaching activities, due to the pandemic closure.

Ce guide méthodologique de science informatique présente l’articulation des procédés, des techniques et des méthodes à utiliser pendant l’enseignement au niveau primaire en R.D. Congo. L’objectif de KALOMBOLA BUSHIRI Thomas est de doter les enseignants de la R.D. Congo d’un outil de travail, un guide pédagogique, dont l’utilisation rationnelle les amènera à la maitrise de la préparation, de la présentation et de l’évaluation d’une leçon de science informatique. L’auteur préconise les méthodes active et participative tout en évaluant les compétences des élèves. Il conseille à
l’enseignant de définir clairement l’objectif opérationnel afin de permettre aux élèves de bien manipuler l’ordinateur pour l’accès au « village de l’informatique ».


The use of extended reality (XR) technology in education offers many advantages for transferring knowledge and practical skills training at the higher education level. As a result, many Universities over the past 5+ years have undertaken pilot programs to both develop XR content and assess how to best implement it within existing teaching and learning systems. Unfortunately, very few of these efforts have included structured evaluation or documentation. As such, limited published evidence exists to inform processes and approaches that may assist or hinder broad scale implementation. This leads many Universities to unnecessarily commit significant time and resources to testing identical or similar approaches, resulting in repeated identification of the same or similar challenges. In response to this situation, The University of Newcastle, Australia decided to systematically document the approach for selection, development and implementation of four new virtual-reality (VR) teaching applications. The current paper contains a detailed intrinsic case study, outlining the process and critical elements that shaped the selection of suitable teaching content, software development, hardware solutions and implementation. Details are provided on how decisions were made, what components were considered helpful, challenges identified, and important lessons outlined. These findings will be useful to organisations and individuals as they look to develop pathways and processes to integrate XR technology, particularly within their existing training and educational frameworks.


Artificial intelligence (AI) literacy education for senior secondary students can prepare them for an AI-pervasive future. Although senior secondary students have been targeted, whether they can learn abstract AI concepts, feel empowered to harness AI and understand AI ethical issues is under-researched. We report a 34-h AI literacy programme with three courses for senior secondary students, examining whether they can acquire machine learning, deep learning concepts and discuss related ethical issues in project-based learning. Fifty-nine, fifty-one and thirty-one students completed these three courses, respectively, with pre- and post-course tests, surveys and self-reflective writing measuring their performance. Concepts tests and self-reflective writing showed that the programme improved the senior secondary students’ AI concepts and ethical awareness. Programming knowledge was not a prerequisite for conceptual understanding and empowerment. The programme did not alter the students’ self-perceived comprehension of ethical principles in any year of study, suggesting that it is a challenge for senior secondary students to fully understand these abstract, higher-level concepts. The curriculum design and content coverage of the programme will be further refined.
During the COVID-19 pandemic, the availability of online higher education programs and tools has grown rapidly. One example is an individual digital study assistant (IDSA) for students, which provides functionalities to train self-regulation skills, to engage with own educational goals and to offer automated, first-level support to higher education institution (HEI) units and employees. An IDSA further can guide students through HEI and their administration. But, what are the critical success factors (CSF) and challenges for an IDSA? We deduce these using a mixed methods approach with one quantitative student survey, two rounds of interviews with various HEI experts, and a literature review. We classified our results according to the information system (IS) success model of DeLone & McLean (2016). Our results and findings show, e.g., that skilled and reliable HEI personnel, well-organized and useful content, cross-platform usability, ease of use, and students' social factors are essential. Attractive IDSA functionalities are a major challenge because students use many apps, daily. Based on our CSF and challenges, we deduce theoretical and practical recommendations and develop a further research agenda.

This study explores how blended classroom teaching (the integration of online courses with face-to-face instructions) equalizes educational outcomes across regions. We point out that besides the medium function, ICT can also transmit educational resources across regions, and the resource transmission function facilitates the equalization of educational inequality across regions. Specifically, the model illustrates that blended classroom teaching transmits educational resources and increases the teaching resources in the underdeveloped regions. Thus, the number of high school graduates increases with more human capital from teaching services and less from student endowment; the investigation of 24 million high school students in 31 regions in China from 2013 to 2019 reveal substantial differences in the graduation rates between developed regions and underdeveloped regions, but the gap narrows significantly along with the fast increase of network multimedia classrooms; and the regression analyses find the number of high school graduates is significantly positively associated with network multimedia classrooms in underdeveloped regions, and with teachers in senior ranks in developed regions. All the findings are consistent with the model predictions.

This study aims at investigating the predictive effects of online teaching readiness factors on instructors’ satisfaction and confidence in the emergency online teaching context. The target population is instructors who experienced online teaching during the COVID-19 pandemic, particularly in South Korea. Two hundred and thirteen instructors from 15 universities in South Korea responded to a survey asking about online teaching readiness (technological, pedagogical, online communication, time and environment management, and institutional support readiness), satisfaction, and confidence. Hierarchical regression analysis showed that pedagogical and online communication
readiness have significant positive effects on both satisfaction and confidence, while showing lower means than other online teaching readiness sub-categories. This research concludes that specific strategies and skills for pedagogical and online communication readiness have to be stressed in professional development programs for online teaching.


There are plentiful online programming resources that enable learners to develop an understanding of conceptual knowledge and practical implementation. However, learners, especially novices, often experience difficulties locating the required information to solve the programming problems. Differ from natural language in syntax and convention, answers for programming languages may not be found just by simple text information retrieval. To address this issue, Coding Peekaboom, a game-based tagging was developed to help adequately index the critical concepts of a code segment. An EEG device was applied to measure participants’ mental states to identify their engagement during the gameplay. Study results include the effectiveness of appropriate concepts collected by participants whereas 47.15 concepts were collected on average in a game. The brainwave analysis and the questionnaire results reveal that participants were highly engaged in the tagging task via Coding Peekaboom. Correlations were found between the state of flow and the number of concepts selected, score, and time. Finally, the results of the flow theory and personal traits were reported to reflect the user experiences in the game.


Background Everyday digital technologies play an important role in mediating human activity that is socio-political and humanizing. The everyday cyborg engages in speculative fabulation that is about fantastical new world-making in times of multiple crises. The work presented in this article builds on previous projects that have examined how everyday cultural practices mediate consequential learning that is transformative for communities of color.

Methods Two social design-based studies draw from ethnographic analysis of two teacher education courses as well as two after-school programs focusing on digital fabrication and making and tinkering. Participants included 22 undergraduate pre-service teachers and 10 middle school students from schools in Latinx communities.

Findings Collaborative cyborg activity, where expertise is distributed, emerged as pre-service teachers and youth collectively engaged with everyday socio-political issues. This article highlights cyborg sociopolitical technical reconfigurations, where learners assembled ideational and material tools to craft objects of learning activity that went beyond those established by schooling and imagined new possible futures.

Contribution Designing learning ecologies for the everyday cyborg, in this case pre-service teachers and non-dominant youth, fosters an engagement with everyday dilemmas in ways that serve as catalysts for further learning and the new world-making of speculative fabulation.

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The current study is a scale development one that investigates the determinants of PU in the context of using gamified learning tools for classroom-based English-as-a-second-language (ESL) teaching. Gamified learning tools (GLTs) refer to educational websites, software, or mobile apps that employ game design elements to improve learning engagement or performance. Though theoretically promising, gamified learning tools was not widely accepted by ESL teachers. Understanding what factors contribute to the perceived usefulness of a gamified learning tool is crucial for the final acceptance of the educational innovation.

There is little research about using information technologies in music education. The issue of comparing the approach to music education based on modern technologies with the traditional approach is of particular interest. Thus, the purpose of the study is to compare the effectiveness of music education based on modern technologies with the traditional approach to learning music. The study was conducted at Lishui Music School. The level of musical skills and abilities of music school students was assessed for the period of 1.5 years. The study involved children aged 5–6 years who had no prior musical experience. The control and study groups consisted of twenty-four children each. The children learned to play the piano and solfeggio. The study group trained in accordance with the New way of Music program. The control group followed the traditional curriculum. At the end of the study, there was an exam. The students performed program pieces corresponding to the study period. The expert committee evaluated the following performance parameters: the number of errors in the reproduction of the musical text, the performance rhythm, the artistic expressiveness of the performance, continuous and complete performance, the performance dynamics, mastery of strokes, as well as positioning of the body and hands during the performance. Except for the last parameter, the study group performed better than the control group. The results obtained justify further expanded studies of the New way of Music program to be subsequently widely introduced in music schools.

Access to education is the first step to benefiting from it. Although cumulative online learning experience is linked academic learning gains, between-country inequalities mean that large populations are prevented from accumulating such experience. Low-and-middle-income countries are affected by disadvantages in infrastructure such as internet access and uncontextualised learning content, and parents who are less available and less well-resourced than in high-income countries. COVID-19 has exacerbated the global inequalities, with girls affected more than boys in these regions. Therefore, the present research mined online learning data to identify features that are important for access to online learning. Data mining of 54,842,787 initial (random subsample n = 5000) data points from one online learning platform was conducted by partnering theory with data in model development. Following examination of a theory-led machine learning model, a data-led approach was taken to reach a final model.
The final model was used to derive Shapley values for feature importance. As expected, country differences, gender, and COVID-19 were important features in access to online learning. The data-led model development resulted in additional insights not examined in the initial, theory-led model: namely, the importance of Math ability, year of birth, session difficulty level, month of birth, and time taken to complete a session.


This paper examines key effective and practical online strategies for teaching and learning literature subjects in online education. The present study also explores the leading concepts and principles of e-teaching strategies and extends to address the way to adopt literary lesson plans to various types of college students, determine subject descriptions, class activities, assignments, assessments, and expectations with students, and build rapport and communication with the students. This article discusses how to enjoy appropriate online media, channels, platforms, and e-pedagogical tools to help the learners and support the college curriculum in literary subjects e.g. poetry, fiction, and drama. The results show that online pedagogues portray and guide interactive literary texts and skills to the students, educators, and course designers and can facilitate instructional methods in learning the English language and literature online.


Peer learning is not fully developed or researched in online and hybrid higher education. This research analyses a peer learning experience in the asynchronous part of hybrid teaching, in one of the largest blended universities in Europe, promoting students to act as teachers of their peers, by preparing digital content (videos) for the course. This article studies whether there are behaviour patterns and different perceptions associated between students who act as teachers, and those who only act as students. The results indicate, among other findings, that students demand this type of activities, and value them very positively. Specifically, the “teachers” consider that this activity increases their motivation for the subject and their performance; they also consider that it significantly improves their creativity and communication skills, and they would definitely participate in the project again. The assessment of the students who merely view the materials is also very positive, and they prefer a learning method through classmate videos than the traditional learning method with printed materials. The research is also a boost to finding ways to promote learning among equals in non-classroom teaching in digital environments.

Messaoui, A., & Pélissier, C. (2023, mars 30). Développement professionnel des enseignants pour la démarche portfolio en IUT : Karuta, un outil de médiation numérique ? Présenté à Journées de l’AIPU 2023 : L’hybridation des enseignements à l’université. Consulté à l’adresse [https://hal.science/hal-04055435](https://hal.science/hal-04055435)

La réforme des IUT mise en œuvre depuis septembre 2021 s’appuie sur le cadre théorique de l’approche par compétences (APC), tel que décrit par Pounay, Tardif et Georges (2017). Parmi toutes les nouvelles mesures associées à cette réforme, l’une d’elles s’adapte particulièrement aux dispositifs hybrides (Charlier et al., 2006 ; Lebrun et al., 2006) : la démarche portfolio. Cette démarche s’inscrit dans la perspective du


Students with disabilities are being encouraged to achieve high academic standards in science education to understand the natural world, acquire life skills, and experience career success. To this end, digital technology supports students with disabilities in order for them to achieve science literacy. While relevant research has presented evidence-based practices to teach science content, the role of technology has yet to be clearly defined in teaching and learning processes. This article presents a systematic literature review on the contribution of technology in science education for students with disabilities. A total of 21 journal articles, during the 2013–2021 period, were identified after an exhaustive search in academic databases. The educational context and learning outcomes of these 21 empirical studies were analyzed. The results show that increased motivation was the main contribution for using digital technology in science education. Positive learning outcomes likely depend on the way digital technology is used, i.e., affordances of each specific technological implementation. Digital technology and its affordances are recommended among other quality indicators for evidence-based research designs in digitally supported learning environments for students with disabilities.


The advancement of artificial intelligence in education (AIED) has the potential to transform the educational landscape and influence the role of all involved stakeholders. In recent years, the applications of AIED have been gradually adopted to progress our understanding of students' learning and enhance learning performance and experience. However, the adoption of AIED has led to increasing ethical risks and concerns regarding several aspects such as personal data and learner autonomy. Despite the recent announcement of guidelines for ethical and trustworthy AIED, the debate revolves around the key principles underpinning ethical AIED. This paper aims to explore whether there is a global consensus on ethical AIED by mapping and analyzing international organizations' current policies and guidelines. In this paper, we first introduce the opportunities offered by AI in education and potential ethical issues. Then, thematic analysis was conducted to conceptualize and establish a set of ethical principles by examining and synthesizing relevant ethical policies and guidelines for AIE. We discuss each principle and associated implications for relevant educational stakeholders, including students, teachers, technology developers, policymakers, and institutional decision-makers. The proposed set of ethical principles is expected to serve as a framework to inform and guide educational stakeholders in the development and deployment of ethical and trustworthy AIED as well as catalyze future development of related impact studies in the field.

Research and academia have been recently affected by the Coronavirus (COVID-19), and physical classrooms and laboratory experiments have been affected significantly due to the recent laboratory closures. This has led to innovative approaches to curb this problem. To address these difficulties in teaching bioengineering related courses that is of significant interest to students of the Faculty of Engineering in Ahmadu Bello University, Zaria, Nigeria, and of course, useful for engineering-based higher education institutions (HEI), a transitional pedagogy: Communicate, Active, Collaborate, Problem-based Solving, Learning and Assessment (CACPLA), which encompasses blended learning, was developed as a new teaching and learning strategy. In this study, we show that this new strategy can initiate a steady transition from physical classrooms to full online instruction for some subjects in engineering. This method has been trialled as an exercise for a module as part of an envisioned biomedical engineering degree programme which can be integrated with local industries and research institutions in sub-Saharan Africa. The teaching materials and environment were carefully designed and 253 students of third and final year classes participated as the experimental group. Also, the effect of critical thinking, pre-lecture, and post lecture on the overall performance of the students was assessed. Two questionnaires were designed for data collection, (a) for technical questions, (b) for receptiveness. The result of a student survey suggests favourable reception of the teaching methodology, which aided their understanding of the general bioengineering concept as applied to the materials chemistry and mechanical measurements context. It was noticed that 80% of the students indicated that the blended learning method was sufficient in achieving the learning outcomes of the study. The method is envisioned as a useful and sustainable complement to traditional teaching pedagogies and workshops due to the convenience and relatively high accessibility to Zoom and Google Meet Apps which can be readily employed without incurring significant costs.


The Croatian government views digitalisation as a way to improve access to higher education and increase its attractiveness. To this end, it is investing in modernising digital infrastructure and building capacity to effectively integrate digital...


Digitalisation is transforming education as well as social and economic life, with implications for childhood. Early Childhood Education and Care (ECEC), with its immense potential to shape children’s early development, learning and well-being, can...
Global education systems face an array of huge challenges, including question marks over how to remain relevant in a fast-changing world. This report Teaching for the Future: Global Engagement, Sustainability and Digital Skills outlines the...

The study aims to analyze visualization as a methodological technique used during lectures in higher educational institutions. An empirical study of visualization as a methodological technique for lectures was conducted using an online questionnaire using the Google forms service. The purpose of the questionnaire was to determine the frequency of visualization used in lectures, its positive effects, and to clarify the problems associated with its use. The results indicate that this methodological technique is actively used during the lecture activities of Russian teachers. Teachers and students note that time-saving and information saturation are the main advantages of visualization. Much less priority is given to such positive effects as facilitated perception, memorization, and interactivity, which are particularly important for students. The study results can be used in teaching didactics and other pedagogical disciplines related to educational methods and approaches in higher education. The results of monitoring visualization application in lectures at Russian universities can be used in further empirical studies on this topic.

In this study, the factors affecting the transactional distance levels of university students who continue their courses with distance education in the 2020–2021 academic years due to the Covid pandemic process were examined. Factors that affect transactional distance are modeled with Artificial Neural Networks, one of the data mining methods. Research data were collected from a total of 1638 students, 546 males and 1092 females, studying at various universities in Turkey, by using the personal information form, the Transactional Distance Scale and the Social Anxiety Scale in E-Learning Environments. Students’ transactional distance levels were included in the model as dependent variable and social anxiety and 17 variables, which were thought to be theoretically related to transactional distance, were included in the model as independent variables. The research data were analyzed using Multilayer Perceptron (MLP) Artificial Neural Networks and Radial Based Functions (RBF) Artificial Neural Networks methods. In addition, these methods are compared in terms of estimation performance. According to the results of the research, it has been seen that the MLP method predicts the model with lower errors than the RBF method. For this reason, the results of the MLP were taken into account in the study. As a result of the analyzes carried out with this method, quickness of the instructor to give feedback on messages is determined as the most effective variable on the transactional distance.

We investigate the effects of peer feedback training (enhanced by expert feedback) on pre-service teachers’ feedback quality and beliefs. Intervention group 1 (IG1) analysed classroom videos before the feedback training, while intervention group 2 (IG2) additionally received expert feedback on their video analyses. IG1 and IG2 were compared to a control group (CG). Results show pre-service teachers in IG1 and IG2 improved their peer feedback quality and beliefs in comparison to the CG. Expert feedback (IG2) lead to greater increases of peer feedback quality than without (IG1). This study highlights the role of expert feedback when training peer feedback.


In recent years, there has been an increasing interest in understanding the Massive open online courses (MOOCs) due to its gaining popularity. Even though the number of online platforms and programs has grown during the COVID-19 pandemic, there is still a high rate of dropout and non-completion. In this work, the expectation-confirmation model is combined with MOOC features such as perceived openness, perceived reputation, and other factors i.e., perceived enjoyment, and perceived computer self-efficacy to investigate the learner’s continued intention to use MOOC. A survey was undertaken and the data was collected from 383 students pursuing their degrees (undergraduate and post-graduate) in Karnataka state, India. The collected data were analyzed with structural equation modelling in Smart PLS 3. The study confirms a significant influence of confirmation and perceived usefulness on satisfaction, and direct significant influence of perceived computer self-efficacy, satisfaction, and perceived usefulness on continuance intention. Also, the results demonstrated the significant influence of confirmation on perceived enjoyment and usefulness and the effect of computer self-efficacy on usefulness. The findings in this study indicate that the MOOC platforms should focus on confirming learner expectations and the usefulness of courses to ensure student satisfaction and continuance of courses.


The aim of this research was to assess students’ ability to explain scientific phenomena by means of a POE pedagogical tool. To achieve this aim, we conducted home experiments in a digital environment. In this qualitative and transversal ex-post-facto research, 775 pupils (aged 13–18 years) enrolled in compulsory secondary education from the Canary Islands were recruited. Data were collected using a digital questionnaire (self-designed), which showed acceptable reliability ($\alpha = 0.8$). According to the results, multimodal POEs with home experiments within multimedia settings were perceived by the pupils to be a useful tool for teaching science on day-to-day. Students also found the POE activities to be motivating and engaging. Lastly, we present the calculation of POE scores and a method for assessing scientific literacy.

Performance expectancy is the expected impact of a technology’s functional advantage even in uncertain conditions. This study suggests that the learning collaboration quality, information quality, and course content support impact the actual use of e-learning and satisfaction perceived by the user, resulting in performance expectancy that meets stakeholder expectations. This study outlines the theoretical model for defining student success in e-learning systems through a theory of online collaborative learning. The research examines the empirical data gathered from 109 postgraduate doctoral students’ participated in the postgraduate universities in Indonesia. The research attempts to focus specifically on how the actual use of e-learning and satisfaction perceived by users mediates the influence of learning collaboration quality, information quality, and course content support on performance expectancy to enhance the sustainability and performance of e-learning in Indonesian universities. The study shows that the learning collaboration quality, information quality, and course content support have no impact on performance expectancy, while each of the constructs indirectly impacts the performance expectancy through the actual use of e-learning. Conversely, the learning collaboration quality and course content support have not indirectly influenced toward performance expectancy by satisfaction perceived by the user as mediator except the information quality.

The pervasive use of the Internet and technology has its impact on citizens’ civic participation. There are growing numbers of research which explore digital citizenship (DC) for citizens’ better civic participation in the information society. With the growing attention of digital citizenship, a systematic review of empirical research focused on digital citizenship in the past decade (2010–2020) was conducted to serve the need of different stakeholders. Synthesis was based on research purposes, methods, population, geographic distribution, instruments and factors that affect digital citizenship. Results showed that the research of the DC empirical studies varied. The themes of DC practice, education and factors attracted attention. A few reliable and valid instruments have been developed to measure digital citizenship targeted for different populations. Demographic factors, Internet use factors, psychological factors and social factors of an individual predict one’s digital citizenship. These factors may serve as indicators for policy makers to draft DC policy and educators to plan for the DC program in the society. Suggestions are provided for practitioners based on the findings.

The aims of the study were to understand the pre-service science teachers’ experiences about Algodo Based STEM Education, to define views about it and, to emerge its influences on pre-service science teachers. Accordingly, case study method was utilized in the study. The participants were 30 pre-service science teachers who were fourth grade in a medium-size state university in Turkey. An intervention was performed to inform pre-service science teachers about Algodo based STEM education during three weeks. The data were obtained from STEM activity plan, STEM activity plan evaluation rubric,
and semi-structured interviews. Interviews were analysed through using descriptive and content analysis techniques together. Algodoo based STEM activity plans were examined by two researchers and evaluated according to the STEM activity plan evaluation rubric. According to the findings, pre-service teachers were planning to use Algodoo software in STEM activity mostly in elaborate stage and on physics topics. Although they have a few difficulties in using Algodoo software, they were aware of the contribution of Algodoo simulations to students, teachers and STEM education. Moreover, they mentioned the positive effects of this intervention on them such as being happy, increasing motivation, providing professional development. The findings of the study are discussed in line with the related literature and suggestions were given.


Engagement is positively correlated with many educational outcomes. However, engaging learners in online learning is often challenging. In this study, a conceptual framework comprising five interrelated factors (instructors, learners, content, technology, and environments) was proposed. The purpose of the study was to explore how learners could be engaged by following the conceptual framework in synchronous online learning. Fifty-five adult learners took part in the study. Specific strategies were applied in four classes. A survey with 38 five-point Likert scale items and an open-ended question was administered. Quantitative and qualitative data were collected and analysed. Results showed that instructors, learners, and content were the core factors affecting learners' engagement. Comparatively, the learners' engagement was less affected by the factors of technology and environments. Results further showed that useful strategies to engage learners included providing opportunities for instructors and peers to interact frequently; having relevant content that could apply to practice; involving interactive activities like group discussions and peer feedback; and having informal conversations with individual learners. This study suggests that future studies can investigate facilitating synchronous online discussions, establishing social connectedness, and using technology to monitor learners' engagement automatically.


Computer-based learning applications and mobile technology have transformed many aspects of the educational experience over the last decade, producing software aimed at improving learning efficiency and streamlining the presentation of course materials. One such class of software, purpose-created to take advantage of spaced learning and spaced testing principles, are electronic flashcard applications. We provide a perspective on the novel use of the Quizlet flashcard application in a tertiary educational setting. To reduce cognitive load for international graduate dental students taking a pharmacology review course, we implemented Quizlet, which integrates both spaced learning and self-testing, to improve the student learning experience. This study assessed students' perceptions of the Quizlet flashcard system in a student cohort comprised of two consecutive years' classes (n = 51 students in total). Results indicated broad acceptance of Quizlet based on ease of use of the software and ease of study of the material. Our data provide insight into the use of this common software in a professional
healthcare tertiary education setting and further demonstrate the successful application of electronic flashcards for a mixed international student cohort. Further research should include an assessment of the impact of flashcard on long-term knowledge retention in this setting.


It is widely recognized that debugging is challenging for novice programmers and, as such, computing educators and researchers have called for explicit debugging instruction. Debugging requires various knowledge and skills, and different students may show different strengths and weaknesses. An understanding of such individual differences is important as it may guide personalized instruction. The current study investigated individual differences in debugging in an undergraduate introductory computer science course. We extracted variables related to debugging from students' submission traces to programming problems in the first month of the course. We applied latent profile analysis to these variables and identified three distinctive profiles. Profile A showed higher debugging accuracy and speed. Profile B showed lower debugging performance in runtime and logic errors, while profile C had lower performance in syntactic errors and tended to make large code edit every submission. Students' gender and self-rated programming ability predicted profile membership. Moreover, profile A got higher scores than the others in the first exam, and this difference persisted in the second and third exam, even controlling for background variables and score on the first exam. We investigated how students transitioned across debugging profiles over the duration of the course. From the beginning to the end of the course, a large part of students stayed in lower performance profiles. Overall, these findings support the call that debugging should be taught at an early stage and suggest that different groups may need different debugging instructions or support.


This study examined the relationship between grade and the ability of text-picture integration in terms of task completion and the pattern of using textual and pictorial information. Children (N = 144) from secondary schools were recruited from grade 5 and grade 8. Analyzing the time spent with the multimedia unit prior to an incorrect response, this study suggests that 5th graders tend to give up relatively early compared to 8th graders. Furthermore, early incorrect responses were more prevalent among students of the non-academic track and were predicted by a low proportion of fixations on the text in mental model construction and on the picture in adaptive mental model specification. An inappropriate approach of integrating text and picture can thus be the reason for giving up early. The work provides a basis for (1) automated feedback during the course of working on a multimedia unit. (2) Instructional design should be adapted to the characteristics of student groups to support text-picture integration and to avoid giving up early.

Modern technology integration in higher education on the example of artificial intelligence use as a personalized learning platform can facilitate learning of various subjects. The research questions are explained by the desire to obtain new experimental data on the modern technology integration in higher education using artificial intelligence as an example, and based on the data obtained, to optimize and improve teaching approaches. The research aims to study the impact of artificial intelligence technologies in higher educational institutions of the People’s Republic of China on improving education system. The study relies on experimental design to determine the effectiveness of implementing the Raptivity personalized learning platform by integrating statistical data analysis and paired t-test. The study involved 356 students. The students demonstrated poor or average performance in the pre-assessment of all five subjects before the introduction of artificial intelligence technologies and average or high knowledge in the post-assessment. Students’ post-assessment performance in mathematics increased by 22.9%, computer science – by 18.4%, management – by 13.4%, English – by 14.7%, sociology – by 13.7%. According to the t-values that were calculated during the study, there is a significant difference in student performance in the five subjects before and after the Raptivity personalized learning platform introduction. Thus, the intervention in the form of artificial intelligence integration has demonstrated its effectiveness in the context of improving student performance in five humanities and exact subjects. This contributed to an increase in the learning process effectiveness. This research is of practical significance as it demonstrates the positive impact of the Raptivity personalized learning platform on students’ performance. The results obtained confirm the need for the modern technology integration on the example of the artificial intelligence introduction in the education system of the People’s Republic of China and other countries.


Many researchers investigated university students’ behavioural intention to undertake online courses during COVID. However, few examined how students’ intention might change throughout COVID by incorporating their learning capability and approaches. The universities in China went through a process from lockdown in February to reopening in September 2020. It provided a unique context for university students in China to experience emergent online learning for approximately six months before returning to normal face-to-face or blended learning on campus. The researchers conducted a questionnaire survey among 193 Chinese university students to investigate the changes in their behavioral intention to learn online throughout COVID. Additionally, the researchers explored the relationships between the participants’ behavioral intention and the factors of learning capability in general, application of specific online learning strategies, online course engagement levels, and academic performance. It was found that the participants’ intention to study online significantly increased during COVID and then slightly decreased after the university reopened. The participants’ intention of online learning after COVID was predicted by their prior intention, learning capability, application of online learning strategies, and online course engagement. The
participants’ perceptions about online learning revealed that, when choosing future course delivery modes, they would a) reflect on their own disposition, capability, and needs, b) compare different learning modes, and c) examine course quality and teachers’ competency. The participants also shared advice regarding their expectation of future online courses which may help shape university educators’ pedagogical practices and provide insights for university online and blended course delivery from learners’ perspectives.


This paper proposes a scenario-based learning (SBL) methodology for teaching Computational Thinking (CT). The presented scenario includes educational material that teaches the basic concepts of a Python course for beginners. The scenario allows the educator to utilize a combination of tools and services and follow a mind map. Moreover, it presents a story through steps which the Generation Z students can follow to learn, understand, and test their acquired knowledge on the Python programming language while engaging in non-coding-related topics such as the history of coding and coding ethics. The proposed SBL methodology allows teachers of CT to familiarize themselves with a series of tools (e.g., Twine, Kahoot!, Repl.it, Discord, and Gather.town) so as to facilitate Gen Z students to learn in synchronous and asynchronous educational environments. The SBL methodology was assessed by using a variety of inspection methods depending on the scope of the individual using the method (e.g., the effectiveness of the tools for the educator, the ease of use, and the interest generated by a Gen X student). The assessment results were quite encouraging.
d’apprentissage intégré au travail se sont sentis plus compétitifs dans leur recherche d’emploi.


La nouvelle plateforme MonMaster devient cette année le guichet unique pour les étudiants qui candidatent en master, dans un contexte où le processus de sélection à l’œuvre depuis 2016 exacerbe les inégalités économiques.


Vocational psychology has devoted limited attention to factors that promote or hinder the career development of musicians. We combined features of social cognitive career theory’s (SCCT) well-being and choice models to examine the experiences of musicians at a formative point in their career development – the first few years of college, during which many would-be musicians either reaffirm or abandon their career paths. Consistent with SCCT, we posited that academic satisfaction and stress would be predicted by favorable levels of self-efficacy, outcome expectations, social support, goal progress, and trait negative affect. We also expected that satisfaction and stress levels would, along with self-efficacy and outcome expectations, predict intentions to persist in undergraduate music majors. Participants were 260 first- and second-year undergraduate music majors. The hypothesized model and a slightly revised version (which added a direct path from goal progress to persistence intentions) produced good fit to the data and accounted well for variation in academic satisfaction, stress, and persistence intentions.


Gender segregation in fields of study represents an important explanation for gender inequalities in the labor market, such as the gender wage gap. Research shows that horizontal gender segregation in higher education persists for a variety of reasons, including women’s greater communal goals and men’s greater motivation to earn high incomes. Yet with the male breadwinner model in decline, a key question is whether women’s motivation to earn high incomes might contribute to increasing women’s participation in female-atypical fields of study. Using data from the German Student Survey over a period of 30 years, our findings show that the proportion of women enrolled in female-atypical fields of study increased from 1984 to 2015. Moreover, women’s motivation to earn high incomes mediates the effect of time on enrollment in female-atypical fields of study. Their motivation to earn high incomes might thus be a factor contributing to the disruption of gender segregation in fields of study over time. Furthermore, contrary to expectations, the motivation to earn high incomes as a driving force for women to opt for gender-atypical fields of study is not stratified by social background.

Past research on occupational choices often focuses on the role of personal attributes. Research is needed that examines whether daily environments and individuals' reactivity to these environments contribute to occupational choices. This study utilizes experience sampling methodology to examine whether daily sexism and affective reactivity to sexism predict the gender typicality of desired occupations of emerging adults in male-dominated majors (MDMs). 40 women and 40 men college students in MDMs reported desired occupations and experiences of sexism and general mood during the past hour four times a day for 2 weeks – allowing for an examination of whether some individuals report a more negative mood when they recently experienced sexism (i.e., reactivity). Results indicated that higher reactivity to sexism (but not daily sexism) predicted women desiring more female-typed and men desiring more male-typed occupations. Results suggest that career counselors should consider the role of daily sexism in career development.


Our current research aimed to investigate the mediating relationship between Parental Career-Related Factors, adolescents' Career Decision-Making Self-Efficacy, and Ambivalence in Career Decision-Making with a total of 605 students from China. We collected data at three different time points, with a 6-month interval between each time point. Then we applied a Cross-Lagged Panel Model using data from all three waves, and the results showed that a higher level of support in Parental Career-Related Behaviors and Adolescent Parent Career Congruence measured at time 1 positively predicted Career Decision-Making Self-Efficacy at time 2; Career Decision-Making Self-Efficacy at time 2 negatively predicted Ambivalence in Career Decision-Making at time 3; and the indirect effect of support in Parental Career-Related Behaviors and Adolescent Parent Career Congruence on Ambivalence in Career Decision-Making was significant. Therefore, Career Decision-Making Self-Efficacy mediated the relationship between support in Parental Career-Related Behaviors and Ambivalence in Career Decision-Making and between Adolescent Parent Career Congruence and Ambivalence in Career Decision-Making. The implications, limitations, and future direction are discussed.

Mira, C. (2022, juin 23). *Les dispositifs d’accompagnement à l’orientation dans les territoires d’éducation prioritaire : remettre de la continuité dans les trajectoires des jeunes?* Présenté à 27èmes Journées du Longitudinal. Consulté à l'adresse [https://hal.science/hal-04077008](https://hal.science/hal-04077008)

Underrepresentation of women and students of color has been a longstanding issue in science, technology, engineering, and mathematics (STEM). The present study examined factors that contribute to academic satisfaction among 585 women college students of color (Mage = 21.42, SDage = 3.25; nBlack = 174, nLatina = 171, nAsian = 240), based on the Social Cognitive Career Theory satisfaction model. Experiences of discrimination was selected as an environmental obstacle and proactive personality as a person input in the model. In addition, critical consciousness was included as a personal resource variable. Multigroup measurement invariance tests and multigroup structural equation modeling were conducted to examine the racial/ethnic differences in constructs and their interrelationships. The findings showed that discrimination, proactive personality, and critical consciousness contributed to academic satisfaction via self-efficacy, outcome expectations, and goal progress. Theoretical, clinical, and institutional implications are discussed in light of the findings. Limitations and future research directions are also discussed.


Many factors influence students' experiences in upper secondary education and beyond, including upper secondary curricula, programme design and support for students. But a good transition from earlier levels of education is the first, essential step in a successful journey through upper secondary education and into further education and/or employment. The design of transition systems can mitigate existing inequities in education, but it can also accentuate them. Transitions can also influence student well-being. They can have either a negative impact, for example through highly competitive systems that can be stressful for students and narrow their development, or a positive impact, for example by helping to construct young people’s sense of agency and ability to make informed decisions about their future. This paper looks at how countries manage students' transition into upper secondary education and the main policy implications of each transition point and how they can influence student outcomes.


Although conceptualized as a multidimensional construct, the majority of measures of calling are unidimensional. In order to further expand the operationalization of calling, this study developed and validated a measure of the three dimensions of calling, namely, craftsmanship, kinship, and serving using three separate samples. Using a sample of 85 undergraduate students, the pilot study established content validity for the three dimensions of calling. Study 1 aimed to refine the developed measure while assessing its dimensionality across 379 participants from Amazon’s Mechanical Turk (MTurk). Furthermore, Study 2 provided evidence of construct and criterion-related validity, as well as test-retest reliability over a period of 3 months across 301 MTurk participants. Recommendations for future research utilizing the more focused dimensions of calling are discussed.

Using job embeddedness theory, this study investigated the off- and on-the-job forces experienced at the axis of race and gender that contribute to Black women staying in science, technology, engineering, and mathematics (STEM) professions. Using purposive, snowball sampling, 13 Black women with STEM degrees and professional experience were selected for semi-structured interviews via Zoom. Tensions in navigating the race–gender intersection were evident in participants’ experiences and informed their perceptions of fit, links, and sacrifices. Moreover, welcoming environments, financial stability, the desire to serve communities as role models, and opportunities to innovate, learn, and grow contributed to participants’ embeddedness in STEM professions. Contrary to previous research, respondents demonstrated high agency and confidence. Organizations can enhance the retention of Black women by providing growth opportunities and welcoming spaces. Specifically, inclusive leadership is essential to retaining a diverse workforce and making the value of Black women visible to drive STEM innovation.


Despite a plethora of research on turnover intentions, we know little about the impact of subjective career aspects (e.g., authenticity, recognition, and meaningful work) on turnover intentions. Drawing upon turnover theory, we argue that subjective career success negatively influences organizational and occupational turnover intentions. This negative effect will be stronger in the presence of career competencies and high perceived employability. To test these relationships, we conducted two field studies using a two-wave survey method. Results of both studies indicated that the negative impact of subjective career success on turnover intentions was strongest when the perceived employability and career competencies were high. In Study 1, we found these relationships significant for organizational turnover intentions. Through Study 2, we found significant results for occupational turnover intentions due to their occupational investments in a new profession. We discuss the contributions of findings to the careers and turnover literature.


We build upon the social cognitive career theory model of career self-management (SCCT-CSM) to test the effects of psychological capital constructs (hope, self-efficacy, optimism and resilience) on preparatory and active job search behaviours, mediated by job search goals in a multi-group study of university graduates who undertook work placement learning before graduation and those who did not. Using a two-wave data from 473 university fresh graduates in the one-year national youth service corps (N = 209 who undertook work placement learning before graduation) and (N = 264 who did not undertake work placement learning) in Nigeria, we test an SCCT-CSM-driven model employing structural equation modelling for the multi-group study. The findings revealed positive effects of self-efficacy and optimism on the preparatory and active job search behaviours across both samples but higher effects in the graduates who undertook work placement learning before graduation. Job search goals mediated the effects of self-
efficacy and optimism on their preparatory and active job search behaviours in both samples. The serial mediation results show that self-efficacy and optimism indirectly affect the active job search behaviours via job search goals and preparatory job search behaviours. The implications of these results are discussed.


New first-year students are vulnerable to dropping out of university because the transition into higher education (HE) is difficult to navigate. Using thematic analysis, we analysed focus groups/interview, exit interviews and qualitative survey data with university students during their first year as criminology undergraduates to explore how they transitioned into HE. Findings show that the transition to a new identity of ‘university student’ was hampered by feelings of awkwardness, which prevented students from fully integrating into student life. However, the subject of criminology was a protective factor because interest in the topic and wanting a degree for betterment, including for future career plans, buffered students against dropping out. We argue that subject-specific interventions may be better in supporting the retention of students and that addressing physical, social and academic awkwardness is key.


While research has identified a five-factor model of career decision-making difficulty based on meta-analytical evidence and cross-cultural comparison, the field lacks an elaborated theoretical account of the joint operation of the five decision difficulties. The current study drew on the dual-process theory of career decision-making (DTC) to examine the interplay of the five decision difficulties in predicting career decidedness in the Chinese context. Study 1 developed and validated measures of decision ambiguity, advance in narrowing down, and career decidedness in a sample of Chinese college students (n = 180). Study 2 examined the structural model using another sample of Chinese college students (n = 408). Focusing on the relations of the five major decision difficulties to career decidedness, the results did not support the standalone mechanism of confusion management but supported the standalone mechanism of ambiguity management. Additionally, the results supported the crossover mechanism from confusion management to ambiguity management and the crossover mechanism from ambiguity management to confusion management. The results not only shed light on the role of each difficulty but also offer evidence for the interplay of key DTC macro elements. The practical implications based on the joint operation of the five decision-making difficulties are discussed.


Drawing on the career construction theory model of adaptation, this meta-analytic structural equation modeling (MASEM) examines the effects of proactive personality on the subjective career success of adolescents and emerging adults. We identified 46 studies that covered 52 independent samples and 24,092 participants through literature
retrieval. Based on these studies, we created an integrative model linking proactive personality with career adaptability, student career construction, and subjective career success. The results of the meta-analysis showed that all bivariate relationships among proactive personality, career adaptability, student career construction, and subjective career success were significantly positive. The results of the MASEM indicated that career adaptability intervened in the relationship between proactive personality and subjective career success, but student career construction, as a suppressor, carried out the negative association between proactive personality, career adaptability and subjective career success in the sequence of adaptation. We also discuss the research implications and provide directions for future research.


Substantial progress has been made in the knowledge base of educational leadership and management (EDLM) in societies across the world. However, the evidence base in developing countries such as Malaysia remains limited. Thus, this article reports the results of a systematic review of research on EDLM in Malaysia. The review aimed at describing key features of the Malaysian knowledge base in EDLM with respect to publication volume, journal outlets, types of papers published, distribution of knowledge production across its states and key scholars, and the composition of research topics, methods, and maturity of its knowledge production. The review database encompassed 328 journal articles in English and Malay language published on EDLM in Malaysia. Systematic methods were applied in the identification of sources and data extraction from the journal articles. Data analysis relied primarily on quantitative methods for data interpretation to reveal the variability in patterns of knowledge production in Malaysia EDLM. The review found that the Malaysian literature in EDLM is largely contemporary; however, it is an ‘immature but emerging literature’ which bears similarities to literatures in other developing societies in Asia. Recommendations are made for topics, methods and other areas where capacity development is warranted.


We analyze the evolution of education inequality and the gender gap in Ghana before and after two major education reforms. Using different measures of inequality, our findings suggest that the gender gap at the basic school level has closed following the introduction of the education expansion policies, but inequalities persist at the postbasic school levels and across regions. We further demonstrate that the educational expansion–schooling inequality nexus is best illustrated by an inverted U-shaped Kuznets curve. We find that after an average of 6 years of schooling has been reached, inequality starts to decline, and gender equality can be achieved when the average years of schooling reach 9.

The efficiency of schools can be defined and measured as the ratio between the outputs produced (for example, achievement and competences) and the inputs utilized (human and technical resources). Technology holds the promise of increasing the efficiency of schools' operations, although empirical evidence on this is still scarce. This paper explores whether the ICT availability and use in 2757 schools from 10 Latin American countries are associated with higher efficiency, relying on PISA 2018. A method based on a double-bootstrap Data Envelopment Analysis (DEA) is employed. The results highlight that the availability of ICT is positively correlated with higher school efficiency. This evidence is relevant for policy implications in setting the post-COVID priorities for educational systems in the region.


Colleges and universities are legally required to attempt to prevent and redress sexual violations on campus. Neo-institutional theory suggests that the implementation of law by compliance professionals rarely achieves law’s goals. It is critical in claims-based systems that those who are potential claimants understand the law. This article demonstrates that (a) intended subjects of the law (colleges and universities) interpret and frame the law in very similar ways; (b) resultant policies are complex and difficult to navigate; and (c) university undergraduates in an experimental setting are not able to comprehend the Title IX policies designed to protect them. These findings suggest that current implementations of Title IX policies leave them structurally ineffective to combat sexual assaults on campus.


l’appréhension et l’amélioration d’un projet de loi, selon un angle historique et sociologique.


Our aim with this study was to gain a better understanding of the emotional landscape of curriculum making by exploring the variety of emotions embedded in shared sense-making about the national curriculum reform implementation at the district level. Focus group interview data were collected from 12 curriculum reform steering groups around Finland, that were responsible for orchestrating curriculum reform work at the district level. The data were qualitatively content analysed. The results showed that the local steering group members experienced a wide range of emotions in shared sense-making. Positive emotions were described slightly more often than negative emotions. The emotional landscape of the sense-making strategies applied in curriculum reform work varied depending on the strategy applied.


This article presents three strategies for creating interdisciplinary, community-based projects: co-create the project with all participants, set flexible, action-based goals, and collaborate to better prepare students. Building strong community partnerships and using the strengths of humanities and professional disciplines can improve impact, teaching, and learning.


Brokers are individuals who facilitate transfer of knowledge and resources, and coordinate efforts across boundaries of organizations. They are defined by their role rather than their organizational position. Brokers might be imperative for the formation and maintenance of inter-institutional relationship as they have the responsibility and the necessary structural position to connect otherwise separate groups. In the context of this study, brokers had the role to cultivate an inter-institutional community around open educational resources (OER) by connecting groups of teachers across higher education institutes. OER provide higher education institutes with an aid to face the challenges of improving teaching and learning. Yet most OER users encounter challenges that relate to finding resources that are relevant, up-to-date, and of good quality. Communities could minimize this issue, but many OER initiatives fizzle out as expanding their impact is an arduous task. This qualitative descriptive study draws upon cultural-historical activity theory to understand the complexities associated with the role of brokers in creating sustainable collaboration on OER across 15 higher education institutes in the Netherlands. Data was collected from project documents, process reports, reflections reports, and a retrospective focus group. The findings show that brokers engaged in a wide variety of actions but that a small-scale, personal, and content-oriented approach to encourage teachers to engage with the OER repository and the online community was perceived as the most valuable. Brokers also experienced conflicts due to the demanding context.
they were operating in, the ambiguity of their role, and the organizational constraints they were confronted with. Practical implications refer to supporting higher education institutes that wish to initiate sustainable collaboration across institutes.

Bataille, P. (2023). L’École contre l’école. La vie des idées. Consulté à l’adresse https://hal.science/hal-03963431
Souvent désignée comme un modèle éducatif innovant, compatible avec des objectifs d’égalité des chances et d’accommodement du scolaire aux besoins de l’économie, l’École 42 fondée par Xavier Niel illustre avant tout une dérégulation du système éducatif par un acteur privé.

This study analyzed the effect of the Fund for the Maintenance and Development of Basic Education and for the Appreciation of Education Professionals (Fundeb) on the National System of Basic Education Assessment (Saeb) results of Brazilian municipalities by estimating a spatial panel model with information from 2007 and 2017, which include the 10 years of the fund’s implementation. The results indicated that the 10% increase in the Fundeb amount per student received by the municipality raised the Saeb score by approximately one point. Furthermore, the increase in the fund’s value in neighboring municipalities contributed to increasing the municipality’s Saeb score by approximately three points. These results are evidence in favor of the hypothesis that Fundeb has encouraged the management and adoption of good practices in municipal education, which influence the decisions and behavior of the neighboring municipalities’ managers to also improve their practices and results.

Self-efficacy is a perceived judgment that one has the ability to execute a course of action that brings about a desired result. While a growing body of research demonstrates the importance of self-efficacy by school leaders, little is known about the different sources of principals’ self-efficacy. This qualitative study investigates the relevance of Bandura’s sources of self-efficacy and on potential additional sources. The analysis is based on semi-structured interviews with 23 primary school principals in Flanders (Belgium). The results reveal that mastery experiences prove to be the most powerful source of principal self-efficacy although they are mainly small successes and do not refer to extraordinary achievements or excellent results. This study also emphasizes the importance of verbal or social persuasion and gaining knowledge. Suggestions for further research, limitations and implications of this study are discussed.


Helping students to become more resilient to online misinformation is widely recognised as an essential task for education in a rapidly digitalising world. Students need both scientific knowledge and epistemic insight to navigate online spaces containing sensationalised reports of scientific and technological developments. Epistemic insight involves epistemic curiosity and the ability to think critically about the nature, application and communication of knowledge. This includes developing an understanding of the power and limitations of science and a curiosity regarding its relationship with other disciplines. We present a workshop designed for school students aged 16–18 titled ‘Can science and technology cure loneliness?’, designed to develop students’ epistemic insight through investigating loneliness through a multidisciplinary perspective. We discuss how the design and pedagogy of this workshop might help students to build epistemic humility—the recognition that no single disciplinary perspective can complete our knowledge about a given topic. As part of a broader programme, epistemic insight-based pedagogies have the potential to develop students’ resistance to science- and technology-related misinformation and prepare them for their potential role in shaping our scientific and technological future.


Federal incentives and requirements under the Obama administration spurred states to adopt major reforms to their teacher evaluation systems. We examine the effects of these reforms on student achievement and attainment at a national scale by exploiting the staggered timing of implementation across states. We find precisely estimated null effects, on average, that rule out impacts as small as 0.015 standard deviation for achievement and 1 percentage point for high school graduation and college enrollment. We also find little evidence that the effect of teacher evaluation reforms varied by system design rigor, specific design features or student and district characteristics. We highlight five factors that may have undercut the efficacy of teacher evaluation reforms at scale: political opposition, the decentralized structure of U.S. public education, capacity constraints, limited generalizability, and the lack of increased teacher compensation to offset the non-pecuniary costs of lower job satisfaction and security.


Minoritized populations have historically been underrepresented within school psychology. Furthermore, school psychology is in the midst of what has been termed the shortages crisis. Previous research suggests that undergraduate psychology students have little knowledge or exposure to school psychology as compared with other branches of professional psychology. Research suggests that increased knowledge and exposure to school psychology is related to increased intentions to pursue school psychology. Scholars have advocated for the creation of undergraduate school psychology courses to increase exposure to school psychology. However, to our knowledge, this is the first study to investigate the effectiveness of such courses. This study took place at a highly diverse northeastern public university and included 210 undergraduate students who were enrolled in an undergraduate school psychology
course. Participants were asked to complete measures examining their knowledge, exposure, self-efficacy, outcome expectations, and choice intentions for school psychology at the beginning and end of the course. Results indicate that students enrolled in school psychology courses demonstrated significant increases in perceived knowledge, exposure, self-efficacy, and outcome expectations for school psychology. In addition, minoritized students demonstrated significantly greater increase in their knowledge and self-efficacy after course completion than nonminoritized students. Implications for minoritized and general recruitment are discussed.


Le rapport cherche à identifier : 1. comment l’Arabie saoudite a réussi à assurer la continuité pédagogique pendant la crise du COVID-19 ; 2. quels ont été les points forts de la réponse du pays à la pandémie ; 3. quelles sont les possibilités d’amélioration de l’enseignement à la suite de cette expérience d’enseignement avec le numérique et d’enseignement à distance. Parmi les clés du succès, il convient de citer l’innovation à tous les niveaux, en particulier chez les enseignants, le succès de la communication avec les familles ainsi que l’engagement de ces derniers.


Pour commencer, plusieurs types d’appropriation de la formation initiale ont été mis en évidence, dépendant de l’interaction de six facteurs internes et externes à l’apprenant. Le sens attribué à la formation et la perception du formateur apparaissent comme les facteurs les plus déterminants. Par ailleurs, une forme de sélection implicite est opérée au cours de cette formation initiale, notamment par l’intermédiaire d’obstacles qui entraînent le parcours de certains profils peu représentés dans le milieu, qui petit à petit apparaissent démotivés et désinvestis, et finissent par rompre leur engagement. Enfin, les résultats ont montré que la formation initiale joue un rôle moins important qu’attendu dans le processus de professionnalisation, dans lequel l’investissement des individus apparaît en revanche essentiel.


Historically Black Colleges and Universities (HBCUs) have a unique history, mission, and role in educating underrepresented and underserved students in the United States. In light of the recent uptick in institutional closures across sectors, understanding the factors associated with college survival for HBCUs is critical. Using linear probability models and data from the Integrated Postsecondary Data System from 1988–2017, we measure which institutional factors are associated with a greater likelihood that HBCUs will remain open when compared to institutions that closed. Findings indicate that institutions located in urban locales are more likely to continue operation when compared to rural institutions. Also, having remedial academic programs and greater spending on student services are associated with an increased likelihood of remaining open. Importantly, these are not the same factors associated with a higher rate of survival for Predominantly White Institutions (PWIs). We conclude by sharing the implications of this research for institutional policies in higher education.


This paper explores how the educational and career paths of Indigenous people in STEMM have been impacted by ethical, cultural, and/or spiritual issues. Based on a survey of over 400 Indigenous students and professionals in STEMM fields, plus over 30 follow up interviews, we find that these issues cause some Indigenous people to leave particular fields altogether, others to avoid certain tasks within their chosen field, and still others to intentionally select particular fields. Ethical, cultural, and/or spiritual issues also are the reason some Indigenous people choose certain career paths, because of their desire to help their communities. By understanding these pathway impacts, STEMM leaders and educators can ensure more equitable pathways and can prepare, recruit, and retain Indigenous people in STEMM fields.


Ce rapport présente une approche holistique pour comprendre et comparer les systèmes d’enseignement et de formation professionnels (EFP). L’approche a été développée par un groupe de chercheurs interdisciplinaires en EFP sur une période de 5 ans dans le cadre des recherches du Cedefop sur l’avenir de l’EFP et a été révisée à
plusieurs reprises. Le cadre introduit 50 dimensions pour l’analyse des systèmes d’EFP, ainsi que des composantes de celles-ci, structurées selon trois principales perspectives : épistémologie et pédagogie, système éducatif, socio-économie ou marché du travail. Le cadre fournit un modèle sur la façon dont la recherche peut soutenir la politique. Ce modèle peut être adapté et appliqué de manière flexible pour toute recherche comparative liée à l’EFP.


Performance-based funding models for higher education, which tie state support for institutions to performance on student outcomes, have proliferated in recent decades. Some states now tie most of their higher education appropriations to completion outcomes and include bonus payments for historically underrepresented groups to address equity gaps in postsecondary attainment. Using a Synthetic Control Method research design, we examine the heterogenous impact of these funding regimes in Tennessee and Ohio on completion outcomes for racially minoritized students and students from historically overrepresented racial groups. Across both states, we generally estimate null or negative effects on credentials conferred to racially minoritized students and null or positive effects on credentials conferred to students from historically overrepresented racial groups. As a result, we find that performance-based funding policies widened the racial gap in certificate completion in Tennessee and in baccalaureate degree completion in Ohio. Across both states, the estimated impacts on associate degree outcomes are also directionally consistent with performance-based funding exacerbating racial inequities in associate degree attainment.


Core concepts provide a framework for organizing facts and understanding in neuroscience higher education curricula. Core concepts are overarching principles that identify patterns in neuroscience processes and phenomena and can be used as a foundational scaffold for neuroscience knowledge. The need for community-derived core concepts is pressing, because both the pace of research and number of neuroscience programs are rapidly expanding. While general biology and many subdisciplines within biology have identified core concepts, neuroscience has yet to establish a community-derived set of core concepts for neuroscience higher education. We used an empirical approach involving more than 100 neuroscience educators to identify a list of core concepts. The process of identifying neuroscience core concepts was modeled after the process used to develop physiology core concepts and involved a nationwide survey and a working session of 103 neuroscience educators. The iterative process identified eight core concepts and accompanying explanatory
paragraphs. The eight core concepts are abbreviated as communication modalities, emergence, evolution, gene–environment interactions, information processing, nervous system functions, plasticity, and structure–function. Here, we describe the pedagogical research process used to establish core concepts for the neuroscience field and provide examples on how the core concepts can be embedded in neuroscience education.


Elective home education has become an international trend characterized by considerable public controversy and much legal fragmentation. Issues related to whether it should be permitted and how it should be monitored are currently being debated in many countries. Homeschooling regulation seems to have become a “wicked problem” with no definitive solution. A case has been made for moving beyond the polarization that tends to label it as either intrinsically good or inherently bad. By drawing its foundations from a UNESCO report published in 2021, this conceptual study is meant to be a contribution to the discussion about the social and legal legitimacy of homeschooling through the delineation of a tenable “social contract for home education”. It has been argued that in light of this social contract, homeschooling should neither be banned nor unregulated. Hence, a shift of perspective is being encouraged to include home educators in a pluralistic dialogue on the future of education towards policy decisions that are sensitive to this complexity.


As children with refugee backgrounds continue to enroll in schools worldwide, attention to their educational needs and experiences has increased. In this study, we analyze the extent that schools and classrooms provide refugee students with equitable educational opportunities compared to students who are not refugees, and whether their teachers feel prepared for and engaged in culturally responsive instructional practices. Using survey data on 130,803 teachers and 8,054 schools sampled from 41 predominantly distant resettlement host countries in the 2018 Teaching and Learning International Survey, we find lower levels of resources, safety, and social inclusion for refugee students but higher levels of preparation and instructional practices in multicultural education among their teachers. The results have policy implications for supporting students with refugee backgrounds in different school contexts.


The higher education participation and success rates of students in low socio-economic status (SES), regional, rural, remote, and isolated areas – who often attend university later in life – is a persistent concern in Australia and beyond. This article focuses on mature-aged students in low SES, regional and remote areas in Tasmania, Australia, proposing that universities harness local belonging when providing learning opportunities. It draws on a thematic analysis of 19 semi-structured interviews with current and prospective university students, and community stakeholders. The study identifies time and place-based barriers to studying on campus: students' commitments outside of university; and
geographical, cultural, and financial challenges. However, existing local infrastructure, such as libraries, create opportunities for face-to-face interactions and learning support for students who study online in their regional or remote communities, provided by staff and local volunteers. These barriers and solutions are discussed using the concept of ‘belonging’, framed spatially and culturally. Current literature on regional and remote higher education students tends to emphasise ‘not belonging’ in relation to distant urban or metropolitan spaces. We argue that ‘belonging’ can be fostered in local spaces with local people. Utilising ‘untapped’ local learning support and existing physical spaces mitigates geographical, cultural, and financial challenges, and provides academic and emotional support. We propose a coordinated network of physical study places and local people, including: regional ‘satellite’ campuses; regional study hubs; local public libraries; and schools, where online students can be supported, connected, and engaged in their studies whilst located in regional and remote communities.


Les lycées les moins éloignés se concentrent dans les grandes agglomérations, tandis que les plus éloignés se situent dans la diagonale allant des Ardennes aux Landes et en zone de montagne ou insulaire. L’éloignement des lycées entretient une relation importante avec la ruralité, mais ne peut y être résumé. Les lycées les plus éloignés sont plus souvent des établissements sous tutelle du ministère chargé de l’agriculture ou des établissements publics de petite taille. Ces lycées sont également plus fréquemment dotés d’un internat et la voie professionnelle y est plus souvent représentée. Dans les lycées les plus éloignés, le niveau social des élèves est plus faible qu’en moyenne et moins diversifié.


Philanthropic initiatives incorporating prescriptive practices have become prominent in K–12 education. This study provides evidence on the reach, character, and impact of the Broad Superintendents Academy, a controversial initiative designed to transform district leadership. A novel data set on Broad trainees linked to data on large districts over 20 years shows that Broad superintendents have had extensive reach, serving nearly 3 million students at their peak, and that, for districts that hired Broad trainees, Broad superintendents were 40% more likely to be Black than non-Broad superintendents, although they had significantly shorter tenures. Estimates provide evidence that Broad-trained leaders had little effect on several district outcomes including enrollment, spending, and student completion. However, they initiated a trend toward increased charter school enrollment.


The globalisation of science, industry and commerce has resulted in the internationalisation of education. In this context, ‘a global citizen’, representing the Humboldtian educational model, has to have universal cognitive skills and cultural competences formed by an international/global education. However, Malaysia’s unique situation, as seen in the case of Penang Island, shows a multicultural education that effectively adapted to the global market. Most of the schools were transformed to national schools after Malaya’s independence from the United Kingdom, yet some retained their international nature. This article shows how national schools in Penang Island preserved their culture after independence, resulting in cultural pluralism (multiculturalism) in the educational system and, at the same time, maintained their global value for Economy 4.0. This multicultural and industry-oriented approach contrasts with the Humboldtian universalistic model, and yet contributes to the growth of science and a global economy. In this regard, it is argued that for the sustainable development of science, technology and society in Penang, the ‘epistemological pluralism’ with cross-disciplinary thinking in diverse cultural contexts should be promoted in educational and global policies.


Research on teacher churn has produced conflicting conclusions as to its impact on students and teachers. We bring clarity to this work by combining and expanding on analytical approaches used in earlier research to determine how and when different types of churn (i.e., grade, school) impact teacher effectiveness and attendance. Using data from the Los Angeles Unified School District, our results suggest differences based on analytical approach but ultimately show that changing schools and grades may be less of an issue than previously reported. In addition, in the case of school churn, a beneficial match in their new school sites may matter more for teacher outcomes than potential disruptive effects of churn. We conclude with implications for policy and future research.


This paper presents the results of an exploratory sequential mixed methods research project investigating Greek IT teachers’ curriculum ideologies. Following the theoretical framework proposed by Michael Schiro, two different measurement tools were designed and implemented for the identification of teachers’ philosophical beliefs about the curriculum. In the qualitative phase of the study, 33 semi-structured interviews were conducted, in which IT teachers discussed the curriculum designs underlying four different lesson plans, all regarded with the common themes of ‘Robots’ and ‘Robotics’.
Based on qualitative data analysis, a survey was administered, using a modified version of Schiro’s original ‘Curriculum Ideologies Inventory’, in which 157 IT teachers participated. The findings of the study illustrated a direct preference towards the well-known, widely recognized and highly promoted ‘Social efficiency’ ideology, embellished with remodelled elements of a ‘Learner-centred’ ideology. Both ‘Social Reconstruction’ and ‘Scholar Academic’ ideologies were perceived as the edges, or the extremes of a continuum, with the first being conceived as too radical and risky, and the second as too traditional and conservative. On the contrary, the study’s results also suggested that the process of measuring teachers’ curriculum ideologies remains a complex and challenging issue and that teachers’ stated curriculum preferences may reflect attributes directly concerned with their professional identity and their experiences in education.


Guided by a framework combining scholarship on critical consciousness and anti-racism in education, this narrative inquiry study sought to understand how practitioners within Gender and Sexuality Centers (GSCs) perceive their engagement with anti-racism. Centering the stories of 20 GSC professionals, findings revealed the racialized differences in practitioners’ motivations, how professionals conceptualized anti-racism actions as involving and extending beyond programming for people of color, as well as how they engaged in reflection with themselves and others. We then offer implications for research and practice.


The growing popularity and diversity of international schools worldwide has resulted in the identification of several typologies of such schools based on different factors of significance. The largest growth in numbers of international schools is now occurring in local markets, with many having a large number of host-country students and to some extent incorporating both national and international curriculum and customs. In this article we discuss the institutional and social issues that may be faced by such schools in terms of their curriculum and their identity, as well as socio-linguistic aspects. We discuss the global and local perspectives that drive and challenge the internationalisation of these schools, with a focus in particular on the context of Cyprus.


Teacher education is increasingly seen as of determining importance to the learning for sustainability agenda. Political momentum, support and funding are critical to advance teacher professional learning in this area. To be effective, teacher professional development must be seen alongside, and not in isolation to, other reforms and policies.
related to sustainability and education for sustainable development (ESD). At EU level, supporting measures are needed to accelerate current interest in learning for sustainability and to identify, share and scale exemplary national/regional policies on teacher education. To help countries turn commitments into action (‘walk the talk’) funding at national and EU level is crucial. Tapping into funding opportunities which have the potential to support large-scale reform (e.g. the EU’s European Social Fund and the Recovery and Resilience Fund) could be a game changer for learning for sustainability. This requires better visibility of existing funding at EU level as well as cross-government/inter-ministerial cooperation at national level to ensure learning for sustainability, including teacher education, is given the focus it urgently needs.


This document focuses on designing curriculum for learning for sustainability. The key messages reflect discussions which took place in the EU Working Group on learning for sustainability during its meeting in Brussels on 15-16 September 2022. During the meeting, participants discussed and identified: policy actions that can assist in the development and introduction of school curricula to improve opportunities for learning for sustainability; frameworks, relevant resources and capabilities that can assist with the shaping and delivery of these policy actions and relevant pedagogies; key challenges and barriers and how they could be overcome; lessons learnt from examples of well-regarded practices in this area. The workshop included considerations related to core competences in learning for sustainability. Sustainability competences are understood as the interlinked set of knowledge, skills, and values that enable learners to effectively engage in action for a healthier planet. GreenComp, the European sustainability competence framework, and other reference documents seek to guide efforts to embed sustainability competences in the curriculum. The GreenComp framework served as a background to discussions during the meeting.


2022 was a year of concerted action to achieve EUA’s objectives on behalf of its membership, following the publication of “Universities without walls – a vision for 2030” during the preceding year. After a year defined by shared values, this Annual Report outlines EUA’s principal efforts and achievements in 2022, including notable new work in areas such as research assessment reform, digital transformation and sustainability. The war in Ukraine was front and centre from February onwards, as EUA sought to help channel a wave of solidarity from the European higher education community with colleagues in Ukraine. And as university communities across Europe emerged from the Covid-19 pandemic, an important feature of 2022 for the Association was exploring new ways of working and capitalising on the lessons learnt during the challenges of the past two years. The 2022 EUA Annual Conference – EUA’s first large in-person event since the
onset of the pandemic – was a particular highlight, providing the welcome opportunity to re-connect with members and partners.


The 2023 edition of ‘Key data on teaching languages at school in Europe’ depicts the main education policies related to the teaching of languages in schools in 39 European education systems. It answers questions about the number and range of foreign languages studied by students, the instruction time dedicated to foreign language teaching, the language support provided for newly arrived migrant students, the transnational mobility of foreign language teachers as well as many other topics. The report contains 51 indicators that are organised in five different chapters: Context, Organisation, Participation, Teachers and Teaching Processes. A variety of sources were used to build the indicators, and these include the Eurydice Network, Eurostat, and the OECD’s PISA and TALIS international surveys. Eurydice data cover all countries of the European Union as well as Albania, Bosnia and Herzegovina, Switzerland, Iceland, Liechtenstein, Montenegro, North Macedonia, Norway, Serbia and Türkiye.


In this research article, Leslie K. Finger and David M. Houston explore how different ideas about the objectives of education can influence families’ schooling preferences and choices. For their study they employed a conjoint experiment embedded in an online survey to examine participants’ preferences for various school characteristics, including distance from home, academic performance as measured by test scores, and the racial/ethnic and economic makeup of the student body. Their evidence suggests a pattern of school choices that could contribute to racial/ethnic segregation.


No Spending without Representation: School Boards and the Racial Gap in Education Finance by Brett Fischer. Published in volume 15, issue 2, pages 198-235 of American Economic Journal: Economic Policy, May 2023, Abstract: This paper provides causal evidence that greater minority representation on sc...


Covid-19 has occasioned ongoing shifts in discourse as language changes to reflect and shape new stages of the global pandemic and different voices weigh in on topics, such as infectious diseases and vaccine efficacy. This study looks at an instance of this that relates to the ‘global education industry’, where cancellation of the International Baccalaureate’s May 2020 high stakes examination instigated a wide-ranging discussion about the organisation. This was triggered by the publication of IB results for 174,355
students in 146 countries, many of which showed large discrepancies between predicted and final grades. Using computer-assisted discourse analysis and a corpus of tweets containing the hashtag #ibscandal, patterns of language use are analysed, providing valuable new insights into the impact on students in different national contexts.


The members of the governing boards of schools, colleges which provide vocational education and training, and universities in the UK have traditionally been volunteers. In some contexts, however, for example, colleges in Northern Ireland, governors are now paid. Whether volunteer governors in other or all settings should be remunerated is the subject of debate. This article analyses the various aspects of that debate. It considers the nature of volunteering; the socio-political context of volunteering; and the growing momentum for the remuneration of governors of all UK educational institutions. The article also considers the arguments for and against governor remuneration, which include remuneration and: the way governors and the governing of educational institutions are valued; the visibility of governing; governor recruitment; the diversity of governing board membership; the quality of governing; the remuneration of other publicly funded agencies and organisations; the accountability governors experience in their role; the market for school governors; and whether a policy which implemented governor remuneration could be reversed. The article also considers aspects that would need to be resolved in practice: who would be paid and for what; the level of remuneration; the funding of governor remuneration; and the organisation of remuneration.


An ethnic gap in education is prevalent around the world. This remains the case in Vietnam, a country that has achieved phenomenal economic growth and raised the educational attainment of the public. This paper examines the impact of language policy reorientation represented by the textbook supply program in Vietnam on the ethnic gap in children's learning measured by a vocabulary test. Applying difference-in-differences estimation to the Young Lives data between 2006 and 2015, we show that the program became more effective in narrowing the ethnic gap as the education policy became reoriented toward ethnic minority children. A causal mediation analysis reveals that increased study time is possibly a moderate mediator through which the language policy reorientation helped narrow the ethnic gap for the young cohort over and above the direct impact, but this was not the case for the old cohort. This paper, therefore, alludes to the importance of delivering learning materials carefully designed for the target group to bring about meaningful behavioral changes. It also underscores the importance of teaching in the right context, corroborating the findings from recent studies on teaching at the right level.

Even though place-based policies involve large transfers toward low-income neighborhoods, they may also produce territorial stigmatization. This paper appeals to the quasi-experimental discontinuity in a French reform that redrew the zoning map of subsidized neighborhoods on the basis of a sharp poverty cut-off to assess the effect of place-based policies on school enrollment into lower secondary education. Using a difference-in-differences approach, we find strong evidence of stigma from policy designation, as public middle schools in neighbourhoods below the policy cut-off, which qualified for place-based subsidies, saw a significant 3.5pp post-reform drop in pupil enrollment, compared to their counterfactual analogues in unlabeled areas lying just above the poverty threshold. This « zone-and-shame » effect is immediate but does not persist, as it is only found for the first pupil-entry cohort in middle schools immediately after the reform. We show that it was triggered by the behavioral reactions of parents from all socioeconomic backgrounds, who avoided public schools in policy areas and shifted to those in other areas or, only for richer parents, to private schools. We uncover, on the contrary, only weak evidence of stigma reversion after an area loses its designation, suggesting hysteresis in bad reputations.


In this paper, we investigate how highly ranked business schools construct their legitimacy claims by analysing their online organisational communication. We argue that in the case of higher education institutions in general, and business schools in particular, the discursive formation of these legitimacy claims is strongly connected to the future. Consequently, we utilise corpus-based discourse analysis of highly ranked business schools’ website communication by focusing on sentences containing the expression ‘future’. At first, we analysed the future-related language use to reveal the general future picture in the corpus. Furthermore, by combining qualitative and quantitative textual data, we identified six typical agency frames (i.e. preparing, shaping, adjusting, exploring, personal future, responsibility) about the future. By examining the co-occurrence of these frames, we were able to identify different discursive strategies. As we connected our findings to general societal phenomena we could interpret why and how business schools utilise these discursive strategies to (re)create and maintain their legitimacy.

Internationalization has become intertwined with efforts for institutions to compensate for declines in public funding with the development of new revenue streams. The purpose of this study is to understand the social construction of entrepreneurship in internationalization in the United States as well as explore the multiple meanings of entrepreneurship and its contradictions in discourse among senior international officers. The findings discuss and explore competing views, tensions and ethical complexities of the ‘new entrepreneurism’ increasingly common in internationalization, which blends creative problem-solving with pressures for revenue generation. The findings of this study illustrate that as the world faces genuine existential crises that threaten the continued existence of our species on the planet, internationalization is in the midst of an identity crisis. The drift towards privatization is proving to be increasingly unsustainable and an entirely insufficient response to the existential threats that face the world.


High rates of school dropout and overeducation are typical problems faced by developing economies. This paper addresses these issues in a unique theoretical model that accounts for complementarity between household and infrastructural investment in education production function on the one hand, and school and higher education on the other hand. The results derived in this paper show that a reallocation of the education budget in favor of school education can solve both problems at the same time if certain conditions are satisfied. Otherwise, reallocation aggravates the problems. This paper questions the efficacy of the widely practiced budget reallocation policy in favor of school education, and in turn, shows that reallocation cannot eliminate school dropouts.


Une répartition équitable des enseignants est un critère primordial pour que chaque enfant puisse développer au mieux son potentiel d’apprentissage, quels que soient le lieu de son école ou de résidence. À Madagascar, le système éducatif fait face à un double défi : le manque d’enseignants qualifiés et des conditions d’apprentissage variant grandement selon les zones géographiques. Le rapport décrit le paysage enseignant à Madagascar et propose des pistes de réflexion pour en améliorer le maillage afin de favoriser l’accès de tous les enfants à une éducation de qualité.


Demand for elite English private schools overseas is increasing and their numbers have risen rapidly in the first two decades of this century. With little research focussed on this type of international school, Bunnell (2008) discusses their first ten years, and the reasoning behind their initial appearance in Thailand. In this paper I examine Bunnell’s work and explore different views of these international elite English private schools. I reflect on the growth since Bunnell’s research and, using Kapferer’s model of globalisation (2005), re-position the globalised elite English private schools in relation to
different school groups and their business models. I follow their progress and development over their second decade and argue how their primary task may have shifted focus, before discussing the increasing use by these international schools of accreditation and affiliations for the purpose of legitimisation. I conclude that these newer, globalised international schools have shifted from an ideological base to one of capitalism, noting how the globalised elite English private schools have branded themselves to support their longevity in an increasingly crowded market.


The provision of education to children is a human right that most countries including Namibia are trying to achieve. Hence, through educational inclusion, educators strive for removal of barriers within education systems for all children to learn. The purpose of this study was to explore how the Namibian inclusive education (IE) policy responds to gender non-conforming learners. Drawing upon the Social Identity Perspective (SIP) and interviews with four education officers and employing a transformative case study, this study revealed that the Namibian IE policy does not clearly pronounce itself on inclusion of gender non-conforming learners. The study further discovered culture, religious beliefs, lack of training and lack of information on gender non-conformity as factors preventing teachers to interpret the IE policy statement in relation to gender non-conformity. The study recommends for the IE policy to have a clear statement and guidelines on handling of gender non-conformity issues in schools. The study further recommends for the programmes for in-service teacher training to integrate the content on sexuality and gender diversity. Moreover, through in-service teacher training, education officers should provide correct information on gender non-conformity to curb the discrimination towards gender non-conforming learners within the school communities.


The international instruments of the Teaching and Learning International Survey (TALIS) require national adaptations and translation before data collection processes begin. This paper provides an assessment of the processes used in TALIS 2018, based on an analysis of the documentation available, as well as countries’ descriptions of the processes and challenges undergone during that cycle. The author starts by identifying several positive aspects, highlighting the work of the international contractor, the national centres and national project managers but also suggests areas for improvement. Finally, the paper looks at the new translatability assessment in the current cycle (TALIS 2024) and how it could be even more effective, as well as recommending a series of proposals that could support adaptation and translation processes in future cycles.


In this historical inquiry, Belén Hernando-Lloréns uses the case of one young Spanish woman who was suspended for wearing a hijab to school to argue that norms of
convivencia in culturally and racially diverse educational spaces work as a practice of abjection that excludes in the name of inclusion. She examines three strategies that made this girl’s veiling an issue of public safety: problematizing Muslim girls’ veiled bodies, normalizing what the responsible female citizen’s body looks like, and pathologizing the desire to veil. This inquiry, which is based on the analysis of policy and law, media, and educational research, contends that norms of convivencia in education carry embedded notions of a salvationist agenda that other and exclude those who deviate from normative, liberal images of a responsible personhood.


En mai 2022, les lycéens du parcours de spécialité de sciences économiques et sociales (SES) ont pu plancher sur le sujet suivant pour obtenir leur baccalauréat: «À partir d’un exemple, vous montrerez que l’innovation peut aider à reculer les limites écologiques de la croissance.» Visiblement, les auteurs de ce sujet d’examen comme des programmes de SES n’ont pas été informés qu’il existe, depuis des décennies maintenant, un consensus scientifique international et pluridisciplinaire sur les questions bioclimatiques. Si les activités humaines continuent de forcer les grands processus écologiques qui régissent le système Terre, nous aurons affaire à des ruptures brusques et irréversibles compromettant la vie humaine en société. Les limites écologiques sont largement franchies; elles ne sont pas reculables d’un point de vue biogéophysique – seule la religion capitaliste de la croissance peut faire accroire de telles fables. Comment l’école républicaine peut-elle encore prétendre à une visée émancipatrice en étant enlisée dans un tel obscurantisme ? Pire encore : l’école, qui survalorise une raison instrumentale, est-elle responsable de l’avènement de l’Anthropocène – cette nouvelle époque géologique caractérisée par une modification durable des conditions d’habitabilité de la Terre ? Fondamentalement, quelle est la finalité de l’éducation : est-ce d’adapter les jeunes au monde tel qu’il va ou de travailler à la transformation radicale (du latin radix signifiant racine) de nos sociétés ? Aujourd’hui, selon la formule économique qui s’est imposée, nous avons l’impression que la finalité de l’éducation est de permettre à chacun de capitaliser son portefeuille de compétences... Renaud Hétier et Nathanaël Wallenhorst poursuivent leur travail d’analyse biogéophysique et sociopolitique de l’Anthropocène pour tracer ici le chemin de la refondation d’une éducation politique confrontée au plus grand défi du temps présent, la disparition progressive de nos conditions bioclimatiques d’existence.


This article examines what vice-principals in Singapore experience as constraints to their leadership practice, and how they deal with these constraints, cognisant that role misalignment for vice-principals presents barriers to schools achieving optimal effectiveness. This qualitative study seeks to hear the voices of vice-principals, to uncover the contextual richness of their experiences through interviews with 28 vice-principals. Coding involved a mix of codes from the literature and from the interviews, with member checking of the findings. Vice-principals in Singapore face two main constraints: role ambiguity and role conflicts. These are mainly a structural issue, given the dual expectations of vice-principals to support their principals and to lead. The problems are
heightened when there are clashes of values, with vice-principals conflicted between two sources of authority: administrative and professional. Framing the constraints faced by vice-principals under role ambiguity and role conflicts raises these constraints to a theoretical and organisational level. The study proposes a link between the concepts of role ambiguity and role boundaries and illustrates how role ambiguity and conflicts can be disempowering. However, the study also shows that ambiguity need not always be a constraint but can be positive under some conditions.


This article examines curricular development within compulsory science and mathematics education (grades k-9) in Denmark during a 20-year transition towards competency-oriented curricula. The article contains two main parts. In the first part, we describe the Danish case, emphasizing how international and national trends at the turn of the millennium led to the development of competency-oriented curricula based on a two-dimensional framework. In this framework, subject goals are separated into competency and subject matter goals. In the second part, we explore teachers' perspectives on potentials and challenges when implementing competency-oriented teaching. Teachers found the two-dimensional framework useful when translating curricula into teaching practice. This analysis also identified four key aspects that support teachers' work within this framework: Maintaining two-dimensionality, coherent competency goals, goals that are both purposeful and teachable, and a feasible content structure. We conclude the article by proposing a model that combines these four aspects and by suggesting possible avenues for future research and developmental processes.


This paper outlines the development of a comparative research framework in subject didactics and applies this in the process of analysing the transformations from academic disciplines across different school subjects. The theoretical framework builds on the concepts of ‘powerful knowledge’ and ‘transformation’ and ‘epistemic quality’ within which transformation processes from the classroom to the societal level are considered as ‘trajectories of powerful knowledge and epistemic quality’. The framework is used to analyse the findings from recent empirical studies across school subjects that have been reported on in publications arising from the Knowledge and Quality across School Subjects and Teacher Education (KOSS) network. The paper then focuses on analysing the transformations from disciplines across school subjects, given that the first boundary in defining powerful knowledge concerns knowledge that is specialized in both how it is produced and transmitted. To analyse this boundary, the findings from the empirical studies are grouped into broad subject categories. These are then compared with the corresponding disciplines by using the widely cited Biglan classification scheme of academic disciplines in higher education. Finally, we consider the implications for curriculum planning and teacher education policy and reflect on the concept of subject-specific educational content knowledge (SSECK).

Ce rapport d’impact de l’agence irlandaise Erasmus+ montre que les établissements scolaires utilisent la mobilité Erasmus+ pour le personnel scolaire en vue d’améliorer l’offre éducative proposée aux élèves. Les principales motivations pour favoriser cette mobilité sont: d’offrir des possibilités d’apprentissage qui ne sont pas disponibles en Irlande; d’améliorer les connaissances et compétences du personnel pour relever les défis actuels ou futurs; de suivre les derniers développements en matière d’enseignement/apprentissage des TIC et de compétences numériques; de rechercher des approches pédagogiques créatives; enfin, de créer des partenariats européens et des activités de collaboration.


In the context of the COVID-19 pandemic, this co-authored paper grew out of a graduate course on mindfulness and an extended inquiry into what it means to cultivate mindful relationships in curriculum as lived experience. Centring three graduate students’ experiential projects, including two projects of interactions with nature and one project of interpersonal interactions, this paper demonstrates the process of practicing mindfulness from students’ perspectives as individual inquiry, a process that was filled with curves and frustrations as well as revelations and potentiality. The teacher educator created pedagogical conditions but the students enacted their own curriculum in their lived experience of forming mindful relationships. A further layer of inquiry was conducted in the conversations among the three graduate students and the teacher educator, from which shared meanings of time, self-understanding, gender and making connections across difference emerged. A reconstructed conversation was composed to demonstrate this inquiry process. Curriculum as lived experience, including curriculum as a complicated conversation, is the orientation for this individual and group inquiry. This study shows that curriculum as mindfully lived in relationship is an emergent process of cultivating both deepened self-understanding and relational attunement, sustained through a lived body, lived time and space, and lived connections across difference.


The early phase of doctoral education is a critical yet under-researched period in PhD programs, when doctoral researchers must solidify their thesis projects prior to embarking on data collection. What makes this time particularly challenging is that new doctoral researchers synthesize their research thinking while they are still learning the expectations and nature of PhD research. This study draws on Emirbayer and Mische’s (1998) chordal triad of agency to explore how PhD researchers’ goals and experiences (individual contexts) influence how they approach doctoral research and develop their thesis projects during the first year of the PhD. The results of this small-scale longitudinal multiple case study of five first-year UK PhD social science researchers suggest that there are at least three approaches PhD researchers may adopt in developing their research projects, influenced by personal histories and post-PhD goals—pragmatic/strategic, idealistic, and realistic. In turn, these approaches may change over time as PhD
researchers acquire experience and encounter critical events. Implications include the need for attention to a diversity of PhD researchers’ needs and goals, which may necessitate additional support or training in tailored areas, and a call for questioning the capacity of PhD researchers to contribute to/stretch the structures surrounding thesis writing.


Declines in state appropriations have decreased the ability of public research universities to hire faculty, particularly tenure line faculty. Many universities have grown nonresident enrollment as a substitute for state funding. This study investigates whether faculty hiring was associated differently with nonresident enrollment growth versus resident enrollment growth. Grounded in labor demand theory, to study this relationship we estimate institution-level panel statistical models for the academic years 2002–2003 to 2016–2017. Results indicate that nonresident enrollment growth had a stronger positive association with full-time tenure line hires than resident enrollment growth. In contrast, employment of full-time and part-time non-tenure track faculty was not associated differently to nonresident versus resident enrollment growth. The institutional policy implication is that nonresident enrollment growth may be a viable strategy to finance tenure line faculty hires. However, state policymakers should recognize that many public research universities and most regional public universities face weak nonresident enrollment demand and are unlikely to compensate for declines in state funding by growing nonresident enrollment.


Centering the research process on building, rebuilding, and maintaining relationships, this multi-vocal article highlights the need to revisit practice. We consider research conducted in a city where all public schools are charter schools and discuss tensions between the implementation of our research approach and the university as we trouble the notion of ‘authorship,’ collaboration, and ‘representation.’ Bringing our unique positionalities to the forefront, this article focuses on voice (oral story) and how voice functions in (written) text for researcher and participants in dissertation research. We argue that dissertation research is a collaborative and relational process that involves: the participants, the author, the advisor, the bodies of knowledge, and the ethical and moral principles that frame the process. Long-term, reciprocal relationships constructed a foundation for this study’s knowledge production and may be needed in all research studies, especially those that include those who are ‘marginalized’ and whose voices are often silenced.


The focus on challenges related to digital distance learning has become particularly relevant since educational institutions had to close due to the Covid-19 pandemic. Teaching related to operationally oriented professions, such as e.g., aviation and
nautical represent educations that have faced extensive challenges. Education portfolios for such professions contain subjects that require transfer of competence based on experiential-based learning leading to in-demand knowledge, skills, attitudes, and sustainable understanding. Such operative-oriented competence is difficult to acquire through exclusively digital distance learning. This paper highlights challenges related to the operationally oriented topics of maritime education and training (MET). Traditionally, operationally oriented learning associated to MET has been carried out based on “on-scene” transfer of experience i.e., inexperienced sailors have gained experience by being guided by experienced sailors. Modern MET has evolved towards more passive « off-scene » learning activities. As a replacement for reduced « on-scene » learning activities, modern simulator and laboratory-based learning platforms have been developed within maritime and other operationally oriented educations. Learning platforms like these are probably the most challenging to find digital distance teaching substitutes for, regarding the Covid-19 pandemic closure. The purpose of this paper is to show whether the rapid change of learning context due to the pandemic closure affected the instant knowledge displayed in exam grades. In addition, the paper addresses possible challenges related to the loss of experience-oriented simulator and laboratory-based teaching activities, due to the pandemic closure.


Alors que les gouvernements tentent de réformer les systèmes éducatifs face à un avenir de plus en plus incertain, il est désormais urgent de définir la façon dont ils pourraient davantage maximiser les co-bénéfices des efforts visant à renforcer la résilience au changement climatique, à promouvoir la viabilité environnementale et à assurer une éducation de qualité pour tous. Le document propose un cadre à sept dimensions pour exploiter les points d’entrée potentiels et combler les lacunes des systèmes éducatifs en matière de : données, politique et planification, coordination, financement, infrastructures, enseignement et apprentissage, écoles et communautés.


In the wake of racial justice protests in the United States, many states adopted policies to constrain the discussion of racism, particularly contemporary and systemic racism, in K-12 classrooms. Discursively framed as “critical race theory bans,” these policies enumerate lists of “prohibited concepts” to be eliminated from classroom instruction and curriculum materials. This brief document analysis provides an overview of first-wave prohibited concepts policies among the states to adopt such policies during the 2020-2022 legislative sessions. The analysis summarizes the prohibited concepts, teaching practices that remain allowed, and the nature of the prohibitions.

This brief describes how several commonly used per-pupil funding measures derived from federal data include passthrough funding in the numerator but exclude students attached to this funding from the denominator, artificially inflating per-pupil ratios. Three forms of passthrough funding for students not educated by the school district where they reside are included in district-level funding totals: payments to private schools (V91), payments to charter schools (V92), and payments to other school systems (Q11). We illustrate this error in Pennsylvania and New Jersey and use data from all 46 impacted states to show how racial and economic funding gaps are understated as a result.


Many districts and states have implemented incentives to recruit teachers to low-performing schools, and previous research has found evidence that these incentives are effective at attracting teachers. However, effects on the schools and students these teachers leave behind have not been examined. This study focuses on the spillover effects of recruiting effective teachers to Tennessee’s Innovation Zone (iZone) schools. We find the short-term effects of losing these teachers range from −0.04 to −0.12 SDs in student test score gains, with larger negative effects when more effective teachers leave. However, combining both these negative effects in schools teachers leave and the positive effects in iZone schools yields overall net positive effects.


Since a nationwide reform of pre-primary education in 2010, Ethiopia has experienced a massive expansion of pre-primary enrolment that increased tenfold in six years. Our paper aims to assess the distribution of early literacy outcomes between children who attended preschool and those who did not and explore how that distribution has changed throughout the reform and by factors such as gender, location, and parental literacy. We find an overall increase in the achievement gaps associated with pre-primary participation between 2010 and 2016. There are also differential patterns in the learning gaps over the reform, with a particular disadvantage for rural students and a relative advantage for students with parents who are not literate. This study suggests that understanding a fuller picture of learning inequality is critical to designing policy to leave no one behind aligned with the UN Sustainable Development Goals.


Attitudes towards education vary between regions and countries. These differences cannot be fully explained by socio-economic inequalities or direct inputs such as teachers or class size. The persistence of historical institutions is also an important issue. In this paper, regional differences in attitudes towards education are investigated in reference to events that took place in 19th century Polish territories when Poland was partitioned by Prussia, Russia, and Habsburg Austria and their educational systems were imposed. The results of the quantitative and qualitative research suggest that historical
processes have created different attitudes towards education. In some regions, education is seen as a key for gaining general knowledge, yet in other parts of the country, it is seen as a tool for improving practical and technical skills.


This study applied a bibliometric approach to a dataset of publications on women and educational leadership to critically explore the nature of research in the field and the utility of the bibliometric method in its mapping. The analysis was conducted on bibliographic records of 823 papers on women and educational leadership published from 1975 to 2020, which had been retrieved from the Web of Science. The results are presented in the form of lists of most impactful papers; most productive research centres/organizations and countries; similar lists of contributing disciplines and publication venues; as well as maps visualizing collaborative activity. A postcolonial feminist perspective used in interpretation of the results reveals that, on the one hand, the approach makes it possible to uncover the persistent coloniality and linguistic hegemony in the field, whereas, on the other hand, bibliometric metrification may contribute to Western epistemic violence and valorisation of scholarship in masculinist terms.


Cette étude de cas analyse les différentes réformes éducatives mises en place depuis 1965 par le ministère de l’éducation singapourien, en étroite collaboration avec l’Institut national de formation des enseignants (NIE) et les établissements scolaires. Cinq phases principales de réformes peuvent être dégagées, caractérisées notamment par les évolutions suivantes: accroissement de l’autonomie des écoles en matière de conception des programmes, de pédagogie et d’évaluation; pédagogies de plus en plus centrées sur l’apprenant; priorité mise sur la qualité de l’enseignement.


This article responds to scholarly calls to engage with diaspora in the context of transnational educational mobilities in global higher education. It maintains that transnational academic mobilities produce a particular kind of academic diaspora, that is often valued by both home and host countries but in ways that vary and serve different interests and aspirations. While the contrasting perspectives on brain circulation and brain drain persist, what this article argues is that systemic inequalities are (re)produced through the processes of transnational academic mobilities, which privilege the mobility of some and not others, and at the same time under-value the home-grown academics and overseas-trained academics that return home. The current diaspora politics is located within this complex, hierarchical, and dynamic cultural, political and economic space. In particular, it pinpoints how the promoted desirability of diasporic brains and talents in policy and practice has continued to reproduce and consolidate academic
inequalities. The article then argues for place-based/at home transnationality, seeing it as productive counter position to help reduce inequalities. The article employs self-study research and is informed by a bricolage of data on Vietnam and its Vietnamese transnational academic diasporas gathered at different points in time and in different contexts.

Leclercq, J.-M. (2023). *Le leadership comme réponse aux nouvelles exigences?* Administration & Éducation, 177(1), 119-125. [https://doi.org/10.3917/admed.177.0119](https://doi.org/10.3917/admed.177.0119)


This study applies CDA and story grammar analysis to investigate how Chinese language textbooks for primary schools foster Chinese national identity through their depiction of Chinese people struggling against foreign invaders. The analysis was conducted on 12 textbooks and the findings were based on stories featuring a range of ages, from children to soldiers and artists, who all displayed patriotic spirit and were willing to risk their lives for China. The textbooks also highlight China's past humiliation, such as the Nanjing Massacre and the loss of territories such as Hong Kong, Macao, and Taiwan. The authors of those textbooks seek to encourage the students' national identity by promoting a sense of patriotism, sacrifice, vigilance against foreign threats, affirmation for the leadership of the Chinese Communist Party (CCP), and putting the interests of the People’s Republic of China (PRC) ahead of personal interests. Additionally, students are expected to have a strong sense of territorial sovereignty, recognizing Hong Kong, Macao, and Taiwan as parts of China. However, the results also show that the portrayal of Chinese national identity is Han-centric, excluding ethnic minorities.


Depuis les années 2010, le Cameroun a vu se multiplier les interventions internationales visant à répondre aux déplacements forcés sur son territoire. Prenant l’exemple du secteur éducatif, cette étude interroge les liens et conséquences de ces interventions sur les acteurs et enjeux politiques, à différentes échelles. Le secteur préscolaire, tout d’abord, est réinvesti par les acteurs locaux grâce à des programmes d’aide d’urgence influençant la politique nationale de décentralisation ainsi que l’orientation des stratégies gouvernementales. L’étude de la crise anglophone souligne un processus d’humanitarisation de l’école primaire, visant à dépolitiser un conflit national en neutralisant les enjeux qui lui sont attachés. Enfin, l’exemple d’un projet de formation professionnelle permet d’analyser la manière dont acteurs étatiques, humanitaires et réfugiés s’accommodent d’un environnement politique et de ses contraintes.


Comment expliquer les qualités prêtées aujourd'hui à l'apprentissage ? Longtemps associé aux corporations et bien plus divers qu’on ne l'a dit, l'apprentissage en entreprise est décrié à mesure que l'industrialisation transforme les mondes du travail et que la fréquentation de l'école devient une norme pour l'éducation des enfants et adolescents....


Cet article aborde la scolarisation de la formation professionnelle sous un jour nouveau, en portant attention aux conflits générationnels qu’elle sous-tend. Des années 1950 aux années 1970, des acteurs du secteur de la photographie tentent en effet de professionnaliser leur métier, plutôt de tradition autodidacte, mais demandant la maîtrise de technologies en permanent renouvellement. Les tensions entre les jeunes et leurs ainés en sont avivées. Comment l’âge et le diplôme entrent-ils en jeu dans cette reconfiguration de la valeur professionnelle ? Comment les jeunes réagissent-ils face aux transformations techniques, pédagogiques et idéologiques qui affectent leurs conditions de formation et de travail ? Ils les perçoivent différemment selon leur génération, leur genre et leur position sociale. Dans cette nouvelle ère de la certification, même si des pratiques de formation sur le tas et d’autodidaxie se maintiennent, les diplômes gagnent du terrain et deviennent de plus en plus un marqueur de différenciation entre les générations.


Le nombre d’étudiants chinois venant étudier en France a rapidement cru durant la première décennie du XXIe siècle. En 2008, la Chine a dépassé l’Algérie et est devenue le deuxième pays d’origine des étudiants étrangers en France, soit le premier pays d’origine non-francophone, la deuxième place qu'elle conserve jusqu’en 2020. Parallèlement, le nombre des diplômés qui rentrent en Chine augmente. Dans le contexte de la mondialisation des échanges universitaires, cette thèse étudie la mobilité des étudiants chinois en France et leur insertion professionnelle sur le marché chinois du travail. Ce travail repose sur une enquête multi-site en France - Paris, Lyon et Dijon - et en Chine - Pékin, Shanghai, Shenzhen et la province du Shandong. En prenant appui sur 45 entretiens biographiques auprès de 37 étudiants et diplômés chinois formés en France, nous mettons en évidence non seulement la trajectoire de ces étudiants en mobilité internationale - genèse des projets d’études, accumulation de capitaux culturels et sociaux et projets de retour, mais aussi les conditions de l’insertion professionnelle et de la conversion en Chine des capitaux acquis en France. Pour les classes moyennes chinoises, si le liuxue (« étudier à l’étranger ») est censé être un moyen d’accumuler du capital humain, il est aussi devenu une norme sociale. Pour certains diplômés, la possession de capitaux accumulés durant le liuxue facilite mobilité géographique nationale et ascension sociale ; mais pour d’autres, il existe sur le marché chinois du travail des critères d’évaluation qui leur sont défavorables.
En 2019, dernière année disponible pour les comparaisons internationales, en France, les dépenses d’éducation au sens des comparaisons internationales de l’OCDE représentent 5,2 % du PIB. Cette part dépasse la moyenne des pays de l’OCDE (4,9 %) mais aussi celles observées en Italie, Espagne et Allemagne. L’effort est plus élevé aux États-Unis, Royaume-Uni et Norvège. L’enseignement tous niveaux confondus est financé principalement par le secteur public : État et collectivités territoriales (83 % en moyenne OCDE). En France, ce financement est un peu plus élevé (86 %). Pour l’enseignement supérieur, la part du financement public est plus faible mais reste élevée en France (75 % vs 66 % en moyenne OCDE) : dans la majorité des autres pays, les familles participent davantage au financement des études supérieures. En 2019, le coût moyen d’un élève scolarisé en France tous niveaux confondus est au-dessus de la moyenne OCDE (13 050 équivalents dollars vs 11 990). C’est particulièrement le cas dans le second cycle du secondaire. En revanche, dans l’enseignement élémentaire, la dépense moyenne par élève en France se situe en dessous de la moyenne internationale. La dynamique entre 2012 et 2019 est portée en France par la politique de priorité au primaire, avec une hausse de 1,7 % par an du coût moyen dans l’élémentaire sur cette période (vs + 0,4 % tous niveaux confondus)


This study compares the estimated grammar school effect in different regression models, and explains why previous evidence of the effectiveness of grammar school is mixed. Like most studies of school effectiveness evaluation, previous research on grammar school effect usually applies regression to control for confounding between-school factors and determines whether attending grammar schools is associated with an academic benefit. While this value-added approach is very feasible and widely adopted, there is usually substantial variation in the evidence produced when statistical choices differ. Applying the national data with more than 149,000 pupils, the study presents the sensitivity of grammar school effectiveness when baseline variables, outcome variables, and regression techniques differ. The findings will help researchers understand the mixed evidence of the effectiveness of grammar schools so far, and the unsettled debate on grammar schools nationally. While inconsistent estimations due to passive design is a common trait in school effectiveness evaluation studies, grammar schools’ effectiveness might be even more sensitive to statistical choices due to their special student intakes. Interpreting the variation between different statistical models, the findings caution researchers in dealing with the evidence in grammar school effectiveness and call for stronger designs as well as more carefully selected explanatory variables.


Education is perceived to have a positive impact on a variety of health outcomes. However, it is unclear how causal this association is or what could account for the observed relationship, especially in low-income countries. This study examined the educational gradient in dietary diversity among young women using individual-level
survey data from Zimbabwe. A parametric fuzzy regression discontinuity design was used in the empirical analysis, with school reform exposure serving as an instrumental variable for educational attainment. The results show that increased schooling improves dietary diversity among women and that this effect is large and statistically significant. An examination of the potential mechanisms by which education improves dietary diversity revealed that women with more education are more likely to engage with print media by reading newspapers or magazines, to be literate, to access prenatal care when pregnant, to be wealthier, to have fewer children, and to live in metropolitan areas. These findings suggest that expanding educational opportunities, particularly for young girls in developing countries like Zimbabwe, could be a useful policy strategy to promote healthy eating among young women and, as a result, could enhance population health and nutrition outcomes.


L’objectif de ce livre est de montrer qu’en République Démocratique du Congo, l’éducation contribue à la croissance économique. L’auteur identifie le rôle dans les modèles économiques des différentes variables après l’estimation : de produit intérieur brut réel par habitant (PIBH) ; du taux brut de scolarisation primaire (TBSP) ; du taux brut de scolarisation secondaire (TBSS) ; du taux brut de scolarisation tertiaire (TBST) ; du taux d’inflation (TINFL) ; de la part des dépenses publiques en éducation (DEP). Il procède par une analyse statistique et économétrique des données plus précisément au modèle Structurel du Vecteur Autorégressif (SVAR), de 1980 à 2020. Pour Frédéric Makengo, les variables de l’éducation contribuent positivement à court et long terme au PIB réel par habitant, les chocs positifs sur le produit intérieur brut réel par habitant (PIBRH) se traduisent par un effet positif sur l’éducation et la croissance économique.


From 2020, the long-standing debate regarding the English national curriculum’s capacity to discuss issues of ethnicity and race escalated. The history subject curriculum particularly is seen as excluding ethnic minorities from an ‘Island Story’ often depicting a White Anglocentric identity disassociated with the wider world. In 2021, the Commission on Race and Ethnic Disparities report declared that secondary school education must play a central role in augmenting social inclusion and shaping future citizens. The government’s current position for increasing inclusion places responsibility at the feet of teachers and schools. It is claimed by government that the curriculum’s flexibility and broadness provide opportunity to inject more diversity to what is taught, thereby meeting any demands for inclusivity. Yet the 2021 Historical Association survey emphasised a need amongst teachers for greater support despite making great efforts to diversify the curriculum. This position paper argues that making the British Empire a compulsory topic within the English history curriculum provides a ready-made vehicle for enhancing diversity and inclusion. Bolstered by global history’s methodology of relying on multiple viewpoints, together they would decentre the history curriculum’s insular potential to offer a diverse, inclusive, modern global perspective of Britain’s ‘Island Story’.
Marengo, N. (2022, juin 30). *L’évolution de l’Université : quel impact sur les SCUIO-IP ?* Présenté à Rencontres nationales COURROIE. Consulté à l’adresse [https://hal.science/hal-04048424](https://hal.science/hal-04048424)

Afin de mieux comprendre l’université, l’intervention aborde un bref historique de cette institution. Cela permet de mieux appréhender les enjeux de ce qu’est devenu cette institution aujourd’hui, ensuite, une focale est consacrée aux changements majeurs que connaît l’université pendant les deux dernières décennies en France. L’impact que ces changements pourraient avoir sur les services communs universitaires d’information, d’orientation et d’insertion professionnelle (SCUIO-IP) est posé. La dernière partie aborde les avancées et les enjeux d’aujourd’hui et les enjeux à venir pour ces services.


This article examines how university presidents who led their institutions to achieve Carnegie “R1 Highest Research Activity” managed policy tensions created by prestige priorities and worked with groups and coalitions internally and externally. Striving to achieve R1 status requires U.S. universities to re-calibrate their focus, resources, and messaging both internally and externally. Using four elements of policy entrepreneurship (PE), the three cases included in this article illustrate the critical role of university presidents as PE in maintaining a sustained effort over an extended period. University leaders displayed their social acuity and built teams by cultivating their social and political capital with influential constituents and groups. As PE, university presidents were deliberate and thoughtful about the language they used to define and describe policy problems and solutions. The findings expand our understanding of the role of university presidents as PE.


Recognizing the need for scientific fidelity and balanced representation in the evidence that informs public policy, this study investigates technical and issue bias in 43 policy briefs and state handbooks that provided information about the use of Student Learning Objectives to evaluate teachers’ performance. The author uses multiple qualitative methods to categorize the contributors to the focal documents, identify the evidence they drew upon, and determine how they represented the information to their targeted audiences. The study reinforces the findings of prior research by documenting the outsized impact of advocacy groups in a policy-related evidence base. The results make an important addition to the scholarly literature by cataloging an array of technical assistance providers that translated and disseminated evidence to decision makers and spotlighting the various ways biased information appeared in the publications. Throughout, the study reinforces how incentives and timing shape evidence production and use in policymaking.

This paper draws from a critical race multicase study of Black parents’ school engagement experiences in a liberal U.S. public school district, focusing here on 12 mothers and fathers who participated in Parent Teacher Organizations (PTOs) and/or African American parent groups. I apply Critical Race Theory, particularly Crenshaw’s notions of restrictive and expansive views of antidiscrimination law, as a theoretical lens to evaluate the school district’s vision of racial equality in school governance. My analysis indicates that regardless of inclusive practices that welcomed Black parents into parent groups, the district still had restrictive views of equality because Black parents’ ideas and desires were only taken up if they converged with the interests of white parents, and school and district leaders. I offer the theorization of still-restrictive to point to a way white supremacy may still operate in liberal and inclusive-seeming spaces.


The extent to which collegiality conflicts or merges with managerial ideas and practices has recently given rise to a lively scholarly debate: have universities surrendered to managerialization or, on the contrary, do they continue to exhibit collegial traits? Part of this debate arises from the lack of a clear definition of “collegiality” in prior studies, where it is either reified or viewed through a limited number of different and possibly loosely coupled dimensions. We therefore deconstruct the collegial model and its structural and behavioral aspects, i.e., professional autonomy, organizational citizenship, faculty participation in decision-making, and academic units’ decision-making power. We examine the links between these dimensions of collegiality and performance metrics applied to research activities and outputs (PRM), because they are concrete artifacts of managerial practices seen as particularly deleterious to collegiality. We address this issue by undertaking a quantitative study of all French public universities (1,334 questionnaires analyzed). Our study draws two important conclusions. Firstly, it finds a mix of both conflict and hybridity depending on the dimension considered: the use of PRM is negatively linked with professional autonomy but compatible with organizational citizenship and faculty participation in decision-making. Secondly, we find that academic units’ reputation strengthens the positive link between PRM and faculty participation, but on the other hand, mitigates the increase of organizational citizenship and academic units’ decision-making power. In sum, we suggest that faculty participation in decision-making is the only aspect of collegiality that resists the advance of managerial logics in universities.

Mira, C. (2022, juin 23). *Les dispositifs d’accompagnement à l’orientation dans les territoires d’éducation prioritaire : remettre de la continuité dans les trajectoires des jeunes?* Présenté à 27èmes Journées du Longitudinal. Consulté à l’adresse [https://hal.science/hal-04077008](https://hal.science/hal-04077008)


This study examines the effects of English Learner (EL) status on subsequent Special Education (SPED) placement. Through a research-practice partnership, we link student demographic data and initial English proficiency assessment data across seven cohorts of test takers and observe EL and SPED programmatic participation for these students over 7 years. Our regression discontinuity (RD) estimates at the English proficiency margin consistently differ substantively from positive associations generated through regression analyses. RD evidence indicates that EL status had no effect on SPED placement at the English proficiency threshold. Grade-by-grade and subgroup RD analyses at this margin suggest that ELs were modestly underidentified for SPED during Grade 5 and that ELs whose primary language was Spanish were underidentified for SPED.


L’intégration du handicap dans les programmes de développement de la petite enfance en situations d’urgence (DPESU) est nécessaire pour que tous les enfants puissent participer, apprendre et contribuer, afin de réaliser leur plein potentiel. Cette note politique défend et met en évidence les avantages du DPESU incluant le handicap, partage des exemples de bonnes pratiques du monde entier et fournit des recommandations aux gouvernements, agences multilatérales, bailleurs de fonds et organisations.


The teaching and pedagogical development of academic communities is influenced by different contextual elements, which may not be apparent in everyday community practices, but may become evident through deeper reflection of the context. This study
approaches these elements from the perspective of a supportive pedagogical culture for teaching and pedagogical development. The data consist of Finnish university teachers’ descriptions of teaching and its development in their work communities through thematic interviews (N = 51). Through inductive qualitative content analysis, meaningful elements of the communities’ pedagogical culture were identified, which represent (a) values and attitudes, (b) norms and principles, and (c) practices and structures in the community. The study proposes a framework of supportive elements of pedagogical culture that should be acknowledged when promoting the development of teaching in university communities. Based on the findings, it is especially important to establish a culture of sharing and to promote the value of teaching through various cultural elements.


We investigate to what extent lengthening the primary school days affects learning trajectories. We use national administration reports at the school level to estimate the impact of more school hours on grade retention at the primary level. Using microdata available in Argentina from 2011 to 2019, we use the variation of 1,297 schools that added more hours of instructional time. The fact that the change from a simple regime (4 hours per day) to an extended regime (more than 4 hours but less than 8) was progressively and exogenous, conditional on infrastructure capacity, allows for estimating the effect through a difference-in-difference approach. We find that lengthening the school day reduces the grade retention of primary students by 23.1%.


À chaque publication du Programme international pour le suivi des acquis des élèves (PISA), le constat est le même : la France se situe dans la moyenne de l’OCDE, avec de faibles variations d’un cycle à l’autre. Quelles sont les raisons de ce classement ? Et quelles leçons peut-on tirer de pays ayant réussi à améliorer nettement les performances ?


Les établissements d’enseignement privé contribuent fortement à la ségrégation scolaire, qui varie fortement d’une localité à une autre. Lutter en faveur de la mixité implique de s’adapter aux particularités locales. L’enseignement privé et la ségrégation scolaire L’enseignement privé est régulièrement mis en cause dans le débat sur la ségrégation scolaire. Financé à hauteur de 73% sur fonds publics pour les établissements sous contrat, il échappe à la sectorisation scolaire et plus largement à des objectifs de (...)

This report provides an overview of educational progress in Türkiye in the last two decades and reviews education policies which were developed and implemented during the same period. It considers a selection of policies operating from the levels of learners and institutions to system-level policies that are analysed through the lenses of comparative international data and OECD analysis of policies, programmes, and interventions that aim to support better outcomes and greater equity across national education systems. Conducted as a desk-based analysis, this report draws from the knowledge base of the OECD on education policy in Türkiye, national and international sources, and responses from the Ministry of National Education to a survey conducted for this report.


This paper contends that one key reason for the lack of adoption of comprehensive change models based in higher education (HE) teaching and learning is that they lack a strong theoretical underpinning, thus potentially impeding their effectiveness in dealing with the complexities of human and organisational behaviour. Change theories that articulate the specific roles and influences of context, time and key actors in the change process are interrogated to highlight barriers to sustainable change in HE. A new theoretical framework for sustainable change is proposed that integrates these change theories in the context of HE professional disciplines. The findings provide several recommendations for university management in implementing change models including the provision of reciprocal feedback loops, enhanced learning for staff and students through scaffolding, developing workplace and professional networks, and implementing study and work unit flexibility.


Around a third of U.S. school districts mention the importance of diversity, equity and inclusion in their mission statements. But these references are far more common in parts of the country won by Joe Biden in 2020 than in areas won by Donald Trump.


The Croatian government views digitalisation as a way to improve access to higher education and increase its attractiveness. To this end, it is investing in modernising digital infrastructure and building capacity to effectively integrate digital...


Digitalisation is transforming education as well as social and economic life, with implications for childhood. Early Childhood Education and Care (ECEC), with its immense potential to shape children’s early development, learning and well-being, can...

Global education systems face an array of huge challenges, including question marks over how to remain relevant in a fast-changing world. This report *Teaching for the Future: Global Engagement, Sustainability and Digital Skills* outlines the...


How is upper secondary education organised across OECD countries? This level of education, which most frequently serves students aged between 15 to 18, is generally the first time when learners have significant capacity to shape the content of their learning, for example by opting for general or vocational education, choosing their subjects and developing a specialisation. Across the OECD, education systems have developed different ways to be responsive to different student needs and interests while trying to ensure that learners develop coherent foundational skills. This paper captures the diversity of countries’ upper secondary systems by: 1) developing a common language that sets the foundation for internationally comparative analysis; 2) categorising how countries organise their programmes in upper secondary education to manage choice, coherence and specialisation; and 3) identifying benefits and strategies to mitigate the risks associated with different approaches to upper secondary programmes for students, education systems and society.


Although teacher agency is increasingly recognised by educationists in the Global South, it is not always well understood or accommodated in policy, as experienced with Universal Primary Education (UPE) reforms in Uganda. This empirical study analyses its role on the UPE reforms, the factors that shape it and its implications for curriculum making. The study adopted a qualitative case study of two UPE schools, utilising an ecological approach to understanding teacher agency. It found that UPE teachers in the selected schools were strongly achieving agency in their daily practice through different forms of ‘resistance’, ‘mitigation’ and ‘cooperation’. Their agency is being shaped by ecological factors comprising of their temporal dimensions mediated by the affordances and constraints of their cultures, structures and materials, with significant implications. The study concludes that stakeholders need to better explicate teacher agency in policy and scholarship.

Covid-19 revealed the strengths and weaknesses in the global education atmosphere in both developed and developing countries. To that effect, this current study explored the impacts of the covid-19 pandemic on Nigeria’s education system and in the process provided a distinctive solution to the challenges facing the sustainability of education in the country. However, the closure of schools for over six months at the onset of the covid-19 pandemic, and the inability of schools to engage learners in educational activities while at home also revealed the poor state of the education system in the country, which led to the discovery of the unavailability of distance online education, web-based learning system and ICT infrastructure in the Nigerian education environment. Covid-19 incidence impacted the stability of the academic calendar, caused teachers attrition, increased the rate of students dropout, and lack of interest in digital education. These outcomes resulted in the exploration of students’ and teachers’ perceptions, attitudes, literacy, competency, and willingness to engage in distance online education. A cross-sectional approach was applied through an online survey to obtain data from n = 82 learners across the three levels of institutions. And SPSS was used to analyze the demography data, while SMART PLS was used for structural equation modeling (SEM). The study outcome satisfied the objectives of the study that the lack of student-teacher digital competencies influences their perception and acceptability of web-based learning approach and use of smart learning and teaching devices.


Organisational efficiency is a consistent quality that derives more from and thrives on strong internal culture than on isolated instances of timely and effortless accomplishments by corporate systems. This study sought to evaluate the relationship between organisational culture and enhanced productivity and efficiency among members of five universities in the Niger Delta region of Nigeria, which with its peculiarities provided a unique context for the study. The quantitative and qualitative methods were used for data collection among 104 respondents. Faculty were assessed on the direct impacts of their organisations’ culture on their research and publication, creativity and innovativeness, among others, while students were assessed on learning, career prospects and others. The study suggested that most of the five universities had no well-articulated organisational culture. This significantly compromises their unique value addition to the educational system, implying that they risk losing their relative advantages unless they fortify their organisational cultural frontiers.


Campus crisis management remains an understudied topic in the context of COVID-affected higher education. In this paper, we contrasted the ability to tame the wicked problems brought by the pandemic of COVID-19 in private and public universities in Bangladesh, Cambodia, Colombia, India, Kazakhstan, Uganda, and Ukraine. The cross-country analysis and diversity of institutional types allowed us to consider a wide range of challenges faced by academic leaders and their institutions during the global pandemic. By drawing on institutional policy reviews and interviews with university administrators, we have examined tensions between the human and institutional
agencies on these crisis-stricken campuses given differing institutional coupling, sizes, resources, and missions. The focus on agential co-dependencies and institutional coupling lays the ground for conceptualizing campus crisis management as a culturally specific construct in the context of higher education affected by the global pandemic.


Despite the popularity of distributed leadership theory, the investigation of the micro-political aspects of such models have scarcely been explored, and insights on the cultural variety of distributed practices in schools are limited. The present study aimed to explore what micro-political aspects emerge in participative decision making in collectivist and individualist cultures. To this end, a multiple case study method was adopted, focusing on four Israeli public high schools. Schools were chosen to represent an ‘extreme’ case selection rationale: two non-religious urban schools representing individualist cases, and two communal schools in religious kibbutzim representing communal schools. The analysis shed light on three micro-political points of comparison between the prototypes of participative decision making in collectivist and individualist cultures related to control, actors, and stage crafting. The findings and implications are discussed.


Textbooks are one of the areas in which gender inequality is institutionalized effortlessly. The study investigated the representation of gender in primary and secondary English textbooks. A total of 14 categories of underrepresentation and misrepresentation were used to examine gender portrayal. The results show that women are significantly underrepresented whilst men are overrepresented in text and illustrations. Female names account for only 30.4% of names in textbooks. Male characters precede female characters in most coordinated phrases, and most of the dialogues are initiated by men. Masculine generic forms are used to refer to women and men including in the English translation of the Afghanistan National Anthem. Men are more frequently portrayed in a myriad of social roles than women are. Surprisingly, this pattern also holds true for domestic roles. Furthermore, little space is dedicated to female famous persons (e.g., scientists), and women constitute a tiny fraction of the main characters of articles and stories, most of which were about trivial matters (e.g., cooking). They are portrayed in a small number of activities, almost a quarter of which are house-related tasks.


Turkey’s politically induced ‘curricular modernization initiative’ intended a philosophical change and a system-level transformation from behaviouristic to constructivist-inspired pedagogies in the early 2000s. Science curriculum has been one of the curricula that has taken precedence. It has changed four times since then. The latest science curriculum for grades 3–8 – age group 9–13 – is issued in 2018. This study examines these curricula and discusses curriculum making at the macro site. Whether or to what extent the tools of state-based curriculum making (ToSBCM) are used is also investigated. Directed
content analysis and thematic analysis are used to address the research questions. Findings revealed that Turkey’s latest science curriculum is a reformulation of its predecessors’ goals, learning outcomes and content. ToSBCM are effectively used in introducing the new emphases of curriculum, managing discourse communities and granting the executive responsibility to teachers. Considering Turkey’s curricular experiences as a country which has one of the most centralized education systems among OECD countries, and a very large hierarchical national administration with schools having the lowest levels of autonomy in determining curriculum and assessment policies among countries participating in PISA, findings offer opportunities to compare and discuss processes of curriculum making with an international perspective.


Despite high prices, many college students do not re-file the Free Application for Federal Student Aid (FAFSA) or file late, making college less affordable. Low-cost technological interventions delivering personalized information and/or advising may improve refiling and academic outcomes, but questions remain regarding the efficacy of this approach at scale. This multi-pronged randomized experiment tested informational and framing text message interventions for a national sample of approximately 10,000 undergraduates. The text outreach caused earlier FAFSA re-filing for some students. However, gains in re-filing during the active intervention period were not sustained after the intervention concluded and did not translate into additional federal financial aid or improved postsecondary persistence or attainment. Implications for the scaling and targeting of nudging are discussed.


The COVID-19 pandemic has created unprecedented chaos all over the world, and schools and their leaders have not escaped its impacts. This article analyses the leadership actions of the team from one international school in reopening after mandated lockdown; it seeks to contribute to the discourse on school leadership during these unprecedented times and to share leadership lessons with those bearing the weight of responsibility of leadership during the pandemic. Using the lens of a framework drawn from the example of Prime Minister Jacinda Ardern’s leadership of New Zealand during the crisis, the actions of the school leaders are examined and linked to each of the good practices outlined. To connect this firmly to school leadership, the actions are categorised as either educational management or educational leadership, and then assessed to determine to what extent transactional and/or transformational leadership was appropriate to how the leaders responded to the various issues that arose during the events. From the analysis, I conclude that the actions of school leaders should fall under the guise of both leadership and management in order to successfully take a school
through a period of uncertainty such as this, and should utilise both transformational and transactional leadership, dependent upon the circumstances with which they are faced.


Tous les enfants en situation de handicap ont le droit d’accéder à l’éducation. Mais cette « inclusion scolaire » est loin d’être effective. Quelles sont les difficultés rencontrées concrètement par les enfants, leurs familles et les équipes pédagogiques chargées de les accueillir ? Comment rapprocher les déclarations de principes et les pratiques ?


Inspired by neo-institutional theory, we explore whether the semantics of diversity appears to be global and universal through computer-assisted content analysis of 2378 publications. Diversity discourses are dominant, but only in the USA and Canada, UK and Ireland and Europe, not being present in Asia, Africa, the Middle East and Latin America. Diversity is interpreted differently across regions influenced by the local socio-political settings. Academic literature on diversity first appeared in the USA and Canada in the mid-1970s in relation to race and gender. In other English-speaking countries, diversity gained momentum only in the mid-2000s, with inclusion, gender, ethnicity and cultural diversity being the dominant terminologies. Later in that decade, diversity appeared in the academic literature in Europe, often framed as inclusion and gender. We did not find any evidence that the semantics of diversity has become global or universal and, therefore, question the cultural globalisation and the worldwide standardisation of academic knowledge around the valorisation of individual and collective differences.


A major development in recent years concerning the growth of ‘private English-speaking international schooling’ has been the transition from a ‘traditional’ mode of activity towards a ‘non-traditional’ context. This is especially the case in Asia, where the majority of international schools now reside. Moreover, we find that in Mainland China two-thirds of the (approximately) 900 schools that might be thought of as international schools are now perhaps better classified as ‘internationalised schools’, catering largely for Chinese nationals and being taught by a largely local teaching force whilst delivering a fusion of international and national curricula in a profit-driven paradigm. A major challenge is to picture and theorise this changing, and increasingly very different, landscape. This paper offers a new imagery for discussion by using metaphor. Building upon the conflicting ‘diluting’ and ‘decoupling’ metaphors that have been recently introduced in the international schooling literature, we present here a conciliatory new imagery: that of ‘dovetailing’. This alternative, third metaphor suggests that the changing landscape of international schooling in places including mainland China involves models of private bilingual international schooling that are pragmatically ‘dovetailed’ with national forms...
of schooling, fusing cosmopolitan sensitivities with the nationalist needs of the state. This metaphor is now ready to be developed and adapted in China and beyond.


La COVID-19 a entraîné des fermetures d’écoles généralisées avec des conséquences importantes pour les adolescents (décrochage scolaire, perte d’apprentissage, risque de perte des compétences acquises…). Entreprise au Kenya dans deux comités urbains (Nairobi, Kismu) et deux ruraux (Kilifi et Wajir), l’étude vise à mieux comprendre l’impact de la COVID-19 sur les adolescents et les résultats scolaires des filles pour permettre : a) la mise en œuvre de politiques et de programmes, à court et moyen termes, pour remédier aux dommages immédiats causés ; b) une meilleure préparation à d’autres pandémies. Les résultats sont classés en deux domaines, éducation, santé et bien-être.


L’amélioration de l’accès de tous les enfants à une éducation de qualité est l’une des priorités du gouvernement de Madagascar. Si le Plan sectoriel de l’éducation 2018-2022 définit des objectifs ambitieux, d’importants défis restent à relever. En soutien au gouvernement, l’initiative Data Must Speak (DMS) examine les pratiques et les comportements des écoles obtenant de meilleurs résultats que d’autres en contextes et avec des ressources similaires. Elle identifie les leviers permettant de déployer, à grande échelle, ces bonnes pratiques. Le rapport présente les résultats de la première étape de la recherche qui identifie les facteurs influençant les résultats éducatifs et les recommandations politiques visant à améliorer l’apprentissage des élèves.


Background This article explores the methodological foundations for a utopian methodology as a form of Design-Based Intervention Research (DBR) that can guide the process of envisioning, implementing, sustaining, and critically evaluating the more radical forms of educational activity systems that prefigure the utopian goal of an equitable and humane education system.

Methods We examine, guided by a utopian methodology lens, the examples from three national traditions for designing and implementing equitable educational activities. Each illuminates critical phases in the process of conducting DBR, combining social theory and cultural-historical activity theory.

Findings We propose methodological principles for a utopian methodology as a form of DBR: a) Some conditions for sustaining and re-generating the utopian goal should be explicitly considered; b) Examine the recurring challenges to viability and achievability of the utopian design in its learning ecology that emerge for observation over multiple times scales; c) Self-critique and collaborative re-design for a new iteration.

Contribution Taken as an ensemble, the cases analyzed here illustrate the broad usefulness of the utopian methodology that we propose in order to maintain the light of...
the utopian goal and challenge domestication process embedded in any process of change and transformation of the status quo.


Dans son Plan sectoriel de l’éducation et des compétences 2017-2021, le gouvernement zambien a donné la priorité à l’amélioration des résultats d’apprentissage avec des stratégies visant à combler les lacunes en matière de qualité, d’accès, d’équité et d’efficacité du système éducatif. Quels ressources et facteurs sont associés à la performance scolaire ? Fusionnant et analysant les données administratives, le rapport aide à identifier les écoles qui surpassent les autres malgré des contextes et des ressources similaires. L’initiative mondiale Data Must Speak (DMS) entend combler le manque de preuves afin d’atténuer la crise de l’apprentissage.


**Background**
This article considers the speculative and pedagogical character of campus abolitionist organizing. Extending education research into the knowledge (re)producing functions of radical activism, we draw upon the Black Radical Tradition to theorize the intersections of learning and imagination in both activism and education.

**Method**
The article centers an autoethnographic case study emerging from the authors’ experiences at University of Pennsylvania and their conflicted positions as campus organizers and educational laborers. Centering a direct action around university reparations, the paper draws on recollections of the event and its preparations as well as audiovisual and written documentation.

**Findings**
Analyzing our experiences as educational laborers and organizers struggling toward liberation, we document movement-driven learning practices and strategies for navigating contradictions between the university’s professed public mission and the realities of its exploitation of neighboring communities, which has been the focus of national campus organizing in the wake of the 2020 protests for racial justice.

**Contribution**
We offer the concept of organizing pedagogies to foreground the role of activism in producing and disseminating knowledge and fostering contexts for collective learning, as well as the role of the radical imagination in shaping activist educators’ mobilizations to advance freedom struggles within and beyond campus.


As key members of the Individualised Education Program (IEP) team and strong child advocates, parents play a critical role in special education. In this study, we sought to understand a crucial, yet underexamined, aspect of special education – parent perceptions regarding student participation in IEP development. Specifically, we asked parents how schools could better support student involvement in the IEP process,
including IEP meetings. Participants included 646 parents of students with disabilities aged 5–21 years currently receiving special education services across the United States. Constant comparative analysis was used to code data. Qualitative coding revealed four major themes, including: (1) promoting an active student role, (2) supportive school staff, (3) making changes to IEP meetings and (4) considerations and concerns regarding student participation. Implications for practice and policy are discussed.

This paper looks at the experiences of school history education and explores the impact this education has had on the development of young adults and their sense of identity in England. Adopting a qualitative approach, this study used semi-structured interviews with twenty young adults, aged 18–22, some from white backgrounds, but most from minoritized ethnic backgrounds.1 Four broad categories were identified in the data, namely ‘values and value’, ‘identity development’, ‘curriculum connections’ and ‘narrative templates’. In the majority of cases, these young adults felt that history was important and had a role to play in addressing societal issues such as racism. However, the curriculum largely ignored the histories of minoritized ethnic groups, as the dominant narrative template favoured a white, Anglo-centric view of the world, and so served to fuel a sense of disconnection to the curriculum and to the state more generally. This paper suggests there is a need to pay closer attention to the place of history education in shaping a sense of belonging and personal identity, through a multiperspectivity approach.

Many factors influence students' experiences in upper secondary education and beyond, including upper secondary curricula, programme design and support for students. But a good transition from earlier levels of education is the first, essential step in a successful journey through upper secondary education and into further education and/or employment. The design of transition systems can mitigate existing inequities in education, but it can also accentuate them. Transitions can also influence student well-being. They can have either a negative impact, for example through highly competitive systems that can be stressful for students and narrow their development, or a positive impact, for example by helping to construct young people’s sense of agency and ability to make informed decisions about their future. This paper looks at how countries manage students’ transition into upper secondary education and the main policy implications of each transition point and how they can influence student outcomes.

The notion of reading publics has a secure place in the sociology of Literature but its place in the educational literature around curriculum studies is relatively sparse. Here I address the question of reading publics in a curriculum context by examining school subject curricula whose very raisons d’etre are the creation of a reading public, viz. the curricula in Literature that usually sit inside high school English/Language Arts. I am interested in the extent to which ‘reading publics’ can themselves be ‘read off’ such Literature curricula and also in the kind of reading publics that are imagined as being
created through such curricula. Under examination are two senior years courses from the Australian Curriculum: English which imagine two quite different ‘beneficiary publics’ which I argue as class-based differences, but which nevertheless both represent what I call a ‘weak’ version of an imagined beneficiary public. I conclude by asking how a curriculum might imagine a more socially oriented reading public.


The aim of this paper is to explore and provide an alternative theoretical viewpoint, informed by empirical studies, of the curriculum policy enactment process which spans across different curriculum policy spaces by drawing on figurational sociology. This paper constructs this alternative figurational viewpoint of the policy enactment process by drawing on curriculum policy and policy enactment literature. This viewpoint highlights how a curriculum policy can be (re-)interpreted, (re-)translated and (re-)enacted by multiple, interconnected and interdependent (face-to-face and non-face-to-face, recognised and unrecognised, past and present) relationships. We argue the need for agonistic dialogue between the stakeholders of the educational community and how his could lead to these stakeholders working together across curriculum policy spaces (e.g., curriculum development, teacher education, professional development) and on different aspects of ‘doing’ policy work. We encourage ourselves, and colleagues, to advocate for, support and provide evidence on the centrality of construction and enactment of curriculum policy in effective curriculum change.


This study explores a group of social studies teachers’ conceptions of citizenship by taking into consideration the country’s increasingly authoritarian political culture. It offers an analysis of semi-structured interviews carried out with 20 teachers working at state middle schools in a relatively secular city. The study found that the majority of the teachers are subscribed to a non-democratic conception of citizenship that prioritizes an uncritical loyalty to the nation, inculcates passive compliance, relies on a pro-Muslim notion of human rights, and makes little room for political issues discussion. Despite that, some teachers seem to develop oppositional discourses and seek ways to claim their agencies. The study concludes that the authoritarian Islamic nationalism in power has intensified the ethno-religiously nationalist, statist, and duty-centric aspects of citizenship education (CE). Some teachers’ explicit emphasis on pro-Islamic and anti-western discourses and almost all teachers’ explicit concern to stay away from politics emerge as novel characteristics that are consistent with the dictates of Turkey’s authoritarian regime. It seems authoritarian populist nationalism redresses citizenship as an exclusionary notion grounded in race, ethnicity, religion, and civilizational claims. Insights from this research may help the advocates keep CE supportive of democratic values under authoritarian conditions.

Instructional leadership concerns the ongoing deep involvement of school principals in direct efforts to improve learning and achievement for all students. The goal of this study was to explore principals’ perceptions regarding the knowledge required for instructional leadership. Study participants were 38 Israeli school principals, representing the population of Israeli principals in terms of sex, age, seniority, academic degree and school level. Data were collected through semi-structured interviews. Data analysis classified the statements of the study participants according to Shulman’s seven categories of knowledge needed for effective teaching. The findings suggested that General Pedagogical Knowledge plays a key role in instructional leadership, while somewhat reducing the importance of Leadership Content Knowledge. Implications and further research of this study are discussed.


As part of the efforts to globalize higher education in Indonesia, internationalization and multiculturalism are two globalization behaviors that have been promoted across higher education institutions. This study investigated both these behaviors through a qualitative case study analysis of four state universities in the country. The authors found that firstly, the autonomy of state higher education institutions played a significant role for the implementation of internationalization programs which is related not only to the flexibility in designing international programs, opening study programs, or recruiting foreign lecturers, but also to the budget amount allocations by the government. Secondly, in developing multiculturalism serious considerations on the cultural stance of the institution and the unique ideology of that institution needs to be undertaken and integrated with the national ideology. Thirdly, the role of the government in making policies and encouraging state higher education institutions to be more autonomous is essential to advance higher education in internationalization and multiculturalism.


The purpose of this paper is to examine the complex relationships between educational policy and classroom practice. By employing a sociocultural perspective, we examine formulations inscribed in socio-material artifacts about what students should learn and how they should engage with knowledge. We explore how these formulations are mobilized in instructional work and the implications this activity has for student participation. To address this issue, we analyzed video data of how teachers invoke competence aims from the national curriculum in their instructional work in six classrooms.

The analytical procedures were derived from interaction analysis. The analysis focuses on how such formulations explicitly mediate social interaction as it unfolds on a micro level. The findings show that competence aims gain different functions as they are mobilized in classroom practice; in other words, they serve different purposes in teachers’ instructional work and anticipate different modes of student participation. In this study, the competence aims were (a) invoked as a source of authority, (b) translated into instructions, and (c) mobilized to obtain social order in the classroom. More rarely, the competence aims were used in meta-level discussions, where they functioned to reach
agreements on how to pursue work toward joint goals. We discuss the implications of these ways of invoking competence aims for student participation.


A growing number of school district and community organizations are seeking to address a ‘crisis’ of Latino male education through the creation of Latino male mentorship programs. Indicative of neoliberal shifts in urban education, these programs often involve public-private partnerships and bring problem-solving, deficit-approaches to youth work. This article examines the construction of Latino male identity in one Latino male mentorship program. Drawing from two years of ethnographic research, I analyze the ways the perceived cultural deficits of Latino boys in the program are dictated by a neoliberal multicultural imaginary. This framing positioned the program as combating popular racial and heteropatriarchal deficits assigned to Latino boys. Furthermore, ethnographic data illustrate the ways the neoliberal values of meritocratic individualism, smart consumerism/market-orientation, and benevolent hetero-patriarchy were embodied and practiced. I close by highlighting moments of resistance and refusal enacted by one mentor to challenge deficit-framings of Latino male mentoring.


Formal schooling in the U.S. has a long and violent history towards Indigenous peoples, today morphing into exclusion and erasure. Using a novel longitudinal dataset of U.S. textbooks (n = 193) from California and Texas, published from 1850 to 2019, we seek to shine light on the issue through a comprehensive analysis of depictions of Indigenous peoples in high school history textbooks. Despite extensive violence, over time, we find parallel increases in mentions of Indigenous rights in the two states. We complement this longitudinal analysis with a detailed snapshot of the linguistic nuances in a sub-set of the contemporary books in the sample (n = 33) via natural language processing (NLP). We again observe similar patterns between states, but we find that most of the discourse sentiment is negative and focused on historic conflicts with the state and settlers. Although rights are mentioned, it is only in passing discussions. Our findings illustrate that the rise of liberal narratives of equality still permit a high degree of marginalization of minorities. Further, the similarities between states supports theories that view the production of this curricular content is primarily a product of national or global processes.


Women and men are capable of effectively discharging school leadership roles. However, in Ghana, people are socialised to expect females to lead girls’ schools and vice versa. Appointing a female or male to lead a single sex school that is opposite to their gender elicits gender stereotyping, protests and exclusion. While researchers have explored these dynamics in co-educational basic schools, they have not extended them to single sex schools. This case study investigated how the leadership practice of a male-led girls’ school in the Central Region of Ghana has challenged gendered walls. The study engaged 23 multiple stakeholders and gathered data through semi-structured interviews, observations and document analysis. Intra- and cross-case analyses of data revealed that loyalty to gender walls in single sex schools reflects the desire to respect and maintain the tradition of female headteachers in girls’ schools and male headteachers in boys’ schools. Overall, Ghana is still a traditional and patriarchal society that is characterised by gender inequity in leadership spaces. However, men and women who exhibit professional integrity and leadership competence could convert critics to supporters in a range of school settings. The Ghana Education Service should provide leadership preparation for practitioners to improve their leadership competence.


This study forms part of a participatory action research project, undertaken in four Spanish schools, analysing the planning and development of educational practices that link each school with its territory through community participation processes. The article describes how school leadership can help to develop participatory processes with the educational community in order to foster such practices. Multiple case study methodology was used. Information was gathered and analysed with qualitative research tools, including participant observation, interviews, discussion groups, documentary analysis and the researchers’ field diaries. Results show the importance and influence of the management team’s leadership style in facilitating and developing such practices, and reveal a need to move towards collaborative leadership models. The study also highlighted the importance of ensuring that families and students assume responsibility.


Although internationally there is a growing interest in strategic human resource management (SHRM) in the educational context, few studies explored SHRM in schools. This qualitative study explores if five common human resource management (HRM) practices (i.e. recruitment and selection, assignment, evaluation, rewards, and
development) are aligned with schools’ strategic planning and individual teacher needs. The analysis is based on 194 semi-structured interviews with school leaders and school team members in 24 schools in Flanders (Belgium). After a within-case analysis, a classification was made for each school for each HRM practice under investigation based on a classification scheme indicating the strategic focus per HRM practice. The cross-case analysis shows that for some HRM practices the alignment with school’s strategic planning and individual teacher needs is identified in more schools (e.g. for ‘professional development’) than for other practices (e.g. for ‘rewards’). The findings of this study contribute to our understanding of SHRM within the education sector and provide schools with tools to invest in SHRM.

Que font les acteurs sur le terrain pour améliorer la qualité de l’éducation ? Leurs actions sont-elles pertinentes, planifiées, coordonnées et cohérentes ? Le programme régional d’appui au pilotage de la qualité de l’éducation postule que c’est, notamment, à partir des réponses à ces questions que l’on pourra identifier et proposer des mesures efficaces pour améliorer le pilotage de la qualité et la qualité de l’éducation. La publication explique l’importance d’analyser le pilotage de la qualité de l’éducation et présente les objectifs et les notions clés du diagnostic du pilotage de la qualité, la démarche adoptée pour l’analyse, les principaux résultats du diagnostic et les prochaines étapes du programme d’appui.

Les actions des acteurs pour améliorer la qualité de l’éducation sont-elles pertinentes, planifiées, coordonnées et cohérentes ? Le programme régional d’appui au pilotage de la qualité de l’éducation postule que c’est notamment à partir des réponses à ces questions que l’on pourra identifier et proposer des mesures efficaces pour améliorer le pilotage de la qualité et, à terme, la qualité de l’éducation. La publication explique l’importance d’analyser le pilotage de la qualité de l’éducation et présente les objectifs et les notions clés du diagnostic du pilotage, la démarche adoptée pour l’analyse, les principaux résultats et les prochaines étapes du programme d’appui au pilotage de la qualité.

Que font concrètement les acteurs sur leurs lieux de travail pour améliorer la qualité de l’éducation ? Leurs actions sont-elles pertinentes, planifiées, coordonnées, cohérentes et orientées vers l’amélioration de la qualité de l’éducation ? Le programme régional...
d’appui au pilotage de la qualité de l’éducation postule que c’est, notamment, à partir des réponses à ces questions que l’on pourra identifier et proposer des mesures efficaces pour améliorer le pilotage de la qualité et, à terme, la qualité de l’éducation. La publication explique l’importance d’analyser le pilotage de la qualité de l’éducation au Niger puis présente : 1) les objectifs et les notions clés du diagnostic du pilotage ; 2) la démarche adoptée pour l’analyse ; 3) les principaux résultats du diagnostic (un dynamisme et une volonté avérés, mais un pilotage limité et inégal ; un système qui sait fixer des objectifs et des stratégies, mais qui peine à assurer leur mise en œuvre locale) ; 4) les prochaines étapes du programme d’appui au pilotage de la qualité.


Les actions des acteurs pour améliorer la qualité de l’éducation sont-elles pertinentes, planifiées, coordonnées et cohérentes ? Le programme régional d’appui au pilotage de la qualité de l’éducation postule notamment qu’à partir des réponses à ces questions l’on pourra identifier et proposer des mesures efficaces pour améliorer le pilotage de la qualité et la qualité de l’éducation. La publication explique l’importance de cette analyse puis présente les objectifs et les notions clés du diagnostic, la démarche adoptée, les principaux résultats (un système qui sait fixer des objectifs clairs, mais qui peine à accompagner leur mise en œuvre et à apprendre du passé) et les prochaines étapes.


Comment l’égalité des sexes est-elle incluse dans la planification en éducation ? Les interventions éducatives sensibles au genre ont un impact significatif sur les résultats scolaires des filles et des autres enfants marginalisés. L’engagement en faveur de l’égalité des sexes, dans et par l’éducation dans les systèmes éducatifs, est nécessaire pour soutenir des interventions efficaces et durables à grande échelle. Dans le cadre de l’Initiative Priorité à l’égalité (UNGEI, IIPE) qui promeut l’égalité des sexes dans et par
l’éducation en collaboration avec les ministères, la société civile et de jeunes militantes féministes, l’étude examine les processus de planification dans les 8 pays d’Afrique-subsaaharienne de l’Initiative (Burkina Faso, Mali, Mauritanie, Mozambique, Niger, Nigeria, Sierra Leone, Tchad) et émet des recommandations.


This article explores school-home collaboration as a pedagogical phenomenon and contributes to a rationale for collaboration between school and parents in upper secondary education. The theory of practice architectures is used as an analytical lens. It sheds light on arrangements that enable or constrain the semantic, social, and physical spaces where students, parents, and teachers encounter each other as collaborative partners. Six upper secondary schools participated in the study; the dialogue café method was used to facilitate conversations between stakeholders to explore and verify this phenomenon. The study revealed three key aspects that require attention when developing collaborative practices: (a) clarification of the teaching profession’s obligations; (b) engaging and empowering students’ agency; and (c) moving beyond a fire-fighting approach. In addition, the need for further research to operationalise the safeguarding of students’ and parents’ rights, and support for students’ agency, in the context of school-home collaboration.


While the importance of Nature-Based Solutions for climate change adaptation (NBaS) is being increasingly acknowledged, very few studies investigate the status of these solutions in higher education syllabi. In an effort to bridge this gap, this study assessed the position of the NBaS notion in French Master’s programs. Based on a survey questionnaire, several interviews and a text mining analysis of the Master’s contents, this paper identified, localised and analysed the French Masters that presented links with NBaS related concepts. This analysis revealed that the notion of NBaS is far from being mastered. This might be caused by a conceptual misunderstanding of definitions. While text mining revealed that the building blocks of the NBaS framework are present, much still needs to be done for connecting them together. A combined analysis of the findings derived from this study led to recommendations to better introduce NBaS in Masters programs in the future.

Cette thèse tente de mettre en lumière la réalité de l’Enseignement de la Langue arabe et de la Culture d’origine marocaine (ELCO) en France. Partant du fait que le dispositif ELCO alimente régulièrement le débat public, ce travail de recherche interroge les enjeux de cet enseignement dans le département de l’Hérault. L’objectif est d’apporter des données originales sur l’action publique vis-à-vis de ce dispositif arabe marocain. Ces données concernent les problèmes liés au dispositif, les effets de cet enseignement et le rapport des enseignants de l’ELCO à la laïcité.


In the Reform Era, the Chinese Government has placed great emphasis on the role of education in ensuring the economic success of individuals and of the country as a whole. While vocational and academic post-secondary qualifications are officially set at the same level, vocational education is positioned at the bottom of the educational hierarchy and suffers considerable societal prejudice. Drawing on the most recent nationwide-representative data, we investigate the labour market positioning of graduates from the two types of education in terms of their income, occupation, and level of employment precariousness. The results suggest that: (1) vocational graduates earn less than academic graduates; (2) the type of post-secondary education is significantly correlated with the likelihood of obtaining white-collar high-skilled positions; and (3) vocational graduates face greater precariousness in their jobs than academic graduates do. This study also reveals that the hierarchically stratified post-secondary system may be a source of economic inequality in the Chinese Reform Era. Moreover, it demonstrates that the visible hand of the state seems to further facilitate the reproduction of current forms of inequality that leave an increasing number of graduates in marginalised labour market positions.


The 21st century education requires schools to provide students with better support in their learning. One way to facilitate this change is through school-based curriculum development (SBCD). Much in the literature talked about SBCD outcomes on respective key stakeholders in schools, but little has been said about the interactions amongst the stakeholders in the process of implementing SBCD. This study examined the interactions amongst school leaders, key personnel and teachers in implementing curriculum innovation in a newly founded government school in Singapore. The findings reveal that the dialogic interactions amongst the stakeholders were reflexively shaping and shaped by the culture of collective sharing and learning in the school. These dynamic, reflexive interactions were coexisting and interplaying with the chains linking one with another, forming an ecology of dialogic interactions amongst the stakeholders. We argue that with an effective enactment of distributed leadership, top-down visioning could be embraced and practised by teachers, and the ecology of dialogical interactions has great potential to sustain SBCD in schools.

School–university partnerships bring meaningful learning opportunities for teachers, and empowering teachers with leadership roles has become an important approach for teacher learning. This study shows how teacher leaders exercised brokerage practice to support teacher learning in one small-scale school–university partnership in China based on interview data from a university expert, three school management team members, eight master teachers and backbone teachers as teacher leaders, and nine teachers. The study discusses the significance of expanding the forms of teacher leadership with brokerage practices, examines the combination of professional and managerial roles embedded within teacher leaders’ brokerage, and addresses the issue of unequal distribution of learning opportunities. Implications are also discussed.


This article examines the key category defining multiculturalism in Israeli history education: the representation of North African and Middle Eastern Jewry, aka Mizrahim. Applying Nordgren’s and Johansson’s conceptualisation, the article explores the changes in this subject from the establishment of Israel to the present day. The diachronic textual analysis shows that social and educational transformations along with developments in the historical discipline have led to a significant change in the representation of Mizrahim. These changes, the conceptual framework reveals, were manifested not solely in adding content but reflected a profound acknowledgement of multicultural approaches. Nevertheless it became clear that the changes are limited, as constructing the Eurocentric Zionist historical consciousness remains the primary goal of the education process. Similar to controversies around the world, the limited nature of the changes—despite the sincere efforts involved—is the result of the rigid national framework that continues to shape Israel’s history education.


Nearly everyone recognizes the fact of deep pluralism: it is hard to deny that contemporary America is characterized by widespread diversity of beliefs, practices, and values. We disagree, not on this reality, but on the way we should respond to the pluralism around us. In this paper, Emily G. Wenneborg discusses one of the most common responses to pluralism in contemporary philosophy of education: autonomy-based liberalism. She praises liberalism for its attempt to navigate certain tensions that accompany its approach to pluralism. At the same time, she raises several critiques of liberalism as a response to pluralism, particularly with regard to religious communities and belief systems. She suggests that trust provides a better framework than autonomy for educating in and for deep pluralism.

Academics report feeling unable to cope in the managerialised university. To confirm these feelings are symptoms of managerialism’s tightening grip, we use Bourdieusian concepts of field and capital to compare academics and professional staff experiential statements in an Australian university. We compare their field conditions and examine how their differences enable or hinder the accumulation of capital that defines their field. Findings show that managerialism requires professional staff to share work tasks and be on-campus, which enables them to accumulate the capital they require. Managerialism also permits and resources academics to working out-of-office to accumulate their required capital. Consequentially though, university operational knowledge becomes informal and only accessible to professional staff who accumulate the required social capital to access it. Professional staff are thus fish-in-water; easily accumulating social capital through day-to-day activities. But academics become fish-out-of-water (office); they flounder to access operational knowledge, which leads to feelings of not coping.


This article examines international student mobility (ISM) as a process of “aspiration on the go” for African students in China—a burgeoning yet under-researched international student flow. Drawing on 15 months of fieldwork at a Chinese university, we present ethnographic case studies of African students that unveil their varied aspirations for travelling to study in China and, more importantly, reflect the diversity and dynamics of their aspirations on the go in confrontation with the realities they have encountered during their stay. We demonstrate that students’ aspirations might be preserved, transformed, reconfigured, placed on hold or go well to realisation, each of which impacts their ISM navigation, such as decisions to leave, to stay or to move to another university/country. We argue that adopting a dynamic and processual approach is important for rethinking international student aspirations and mobilities, in that it not only identifies nuances that diversify our understanding of what international education may mean for different individuals—especially for those from less-privileged backgrounds in an ISM flow within the Global South—but also bridges such binaries as imagination and reality, promise and precarity and structural force and agency that are usually treated separately in the literature of ISM.


There is a growing literature studying the ‘non-traditional’ type of international schools. However, a less explored and under-theorised area is the changing dynamics of the global-local interactions in the way these international schools are being redefined and shaped by local processes, regimes of control, and mechanisms. Drawing on empirical evidence from sixteen ‘non-traditional’ international schools in urban China, our paper contributes to the literature in three ways. Theoretically, we developed the notion of ‘reining in the international’ to draw analytic attention to the state power and social agency in controlling and directing the global flows of international schooling. Empirically, our paper provides concrete evidence to show the disjuncture occurring when the global/international is interrupted and transformed by local/national conditions. Third, we argue that in the case of China, the local has taken charge as the
‘content supplier and negotiator’ in the global-local confluence of forms adopted by international schools.


A case study is used to understand how Western international branch campuses (IBCs) in China represent themselves through web-based branding materials. Drawing on colonial discourse analysis and the theoretical framework of Whiteness as futurity, this study examined the case of Wenzhou-Kean University, a Sino-US cooperative institution to understand how Western IBCs in China interpret and promote internationalization in higher education. By examining how Whiteness through the discourse of world-class education has been mobilized and reproduced, this study argued that the operation of IBCs perpetuated Western supremacy in the global higher education landscape at the expense of local people and knowledges.


Teacher education programmes need to provide opportunities that support the integration of theory with practice. To date, there is little research on how to help preservice teachers apply professional knowledge to an important aspect of practice: lesson planning. The present research developed an educational approach to lesson planning by drawing on research on professional vision and analysis of teaching. The approach shows what kinds of connections may be established between professional knowledge and lesson planning decisions. These connections require reasoning about possible learning effects of instruction according to principles of teaching and learning. To help preservice teachers make connections, a scaffolded progression was created using research on lesson planning, case methods and pedagogies of practice. This progression suggests providing preservice teachers with opportunities for the gradual application of professional knowledge to iterative cycles of lesson plan analysis and lesson planning. A tool for the implementation of this approach, the Lesson Analysis and Plan template, was designed through a research-practice partnership in a teacher preparation programme. Advice to future implementers of the template is discussed based on field experience.


This article explores the methodological and ethical challenges of doing qualitative fieldwork in an authoritarian state. Drawing on a long-term project conducted in China, I discuss how my interaction with the participants was mediated by the pervasive state power. This phenomenon adds a new layer to the question “can the subaltern speak,” and calls for a refined understanding of the researcher-participant relationship. Borrowing insights from recent anthropological studies on the state and Abrams’s state effect theory, I propose to move away from a static, western centric, and territory-based conceptualization of the state, and treat it as a culturally and historically specific structuration, in which researchers and participants are engaged. In this way, researchers
can intentionally work against the normalizing state power yet still work with their
participants. This approach leads to a more deliberate understanding of the
methodological and ethical responsibilities of researchers in the process of structuration.

middle school chemistry textbooks. *International Journal of Science Education, 45*(4),
Understanding the nature of science (NOS) is an important goal of science education,
and textbooks are a key factor in shaping students’ conceptions of NOS. In this study, we
analysed NOS represented in middle school chemistry textbooks in the Chinese
mainland. The selected materials were three most commonly adopted textbook series,
which were published in 2001, 2001, and 2012. The analysis was conducted from 11
aspects – empirical, inferential, creative, theory-driven, tentative, myth of ‘the scientific
method’, scientific theories, scientific laws, social dimensions of science, social and
cultural embeddedness of science, limitations of science – to determine the distribution
of different representation types (explicit-informed, implicit-informed, implicit-naïve, and
explicit-naïve) in each NOS aspect in each textbook series. Textbook analysis results
indicated that each textbook series had mixed conceptions of NOS and most NOS
representations were informed and implicit. The frequencies of NOS representations in
the selected textbook series were roughly identical; however, the last two textbook series
had relatively higher error rates than the first one. Moreover, there was an overall
imbalance in the representations of NOS aspects. Our findings, combined with previous
studies, were also discussed.

support for doctoral students in Russia: Categorisation and effects. *Higher Education
Departmental academic support plays an important role in a doctoral journey. However,
different types of support may be related to different outcomes. This paper aims to
provide a categorisation of types of departmental academic support and analyse the
relationship between these different categories of support and doctoral students’
confidence that they will complete their dissertations. The empirical base for the research
is data from a cross-institutional survey of doctoral students at six Russian universities.
Based on the results of latent class analysis (LCA), we distinguished six types of
departmental academic support depending on the functions performed by supervisors,
other faculty members and department heads. Consistent with previous research, we
found that departmental academic support plays a crucial role in doctoral students’
experiences and outcomes, while lack of support is related to a lower level of confidence
about completing a dissertation. At the same time, our results provide evidence that
excessive collective engagement in doctoral students' work from departmental staff
may be less effective than the strong engagement of a supervisor, assisted by
informational support from other staff members.

Aldemir Engin, R., Karakuş, D., & Niess, M. L. (2023). TPACK development model for pre-
service mathematics teachers. *Education and Information Technologies, 28*(4),
4769-4794. https://doi.org/10.1007/s10639-022-11381-1
Technological Pedagogical Content Knowledge (TPACK) describes a significant qualification for teachers and pre-service teachers to address the integration of contemporary technological advancements into lessons that adequately reflect the subject matter for a diverse set of students. Various methods and models have been identified to develop and evaluate the TPACK of teachers and pre-service teachers. This case study aimed to enrich and deepen the descriptors of the Niess (2013) model to better assist pre-service mathematics teacher educators as they redesign their teacher education programs for developing the TPACK needed in this digital age. Data were collected from semi-structured interview forms, lesson plans, micro teaching experiences, and interviews. The study group comprised seven volunteer mathematics pre-service teachers in the final term of their undergraduate education program. Analysis of the data generated a revised model to guide the TPACK development of pre-service mathematics teachers.


**Background** We examine the development of youth sociopolitical consciousness and agency in an eighth-grade science classroom as students of color engage in critical speculative design activities, exploring the multi-scalar, racial realities and possibilities of the science and engineering of pervasive digital technologies—specifically involving the entanglement of lightwaves and melanin in computer vision and artificial intelligence (AI) technologies.

**Methods** Through case studies of two girls of color (ES and GS), we analyze the youths’ learning pathways across three instructional phases: threading practices (learners’ sociopolitical interpretation); weaving practices (learners’ coordination of multiple ways of knowing and being in relation to their interpretation); and patternmaking practices (learners’ visions of more just patterns, practices, and politics through speculative design).

**Findings** Our analyses show how youth use their felt, cultural, and community knowledges, as well as their developing scientific knowledge of physics, to confront and analyze manifestations of racial bias in technologies. The findings highlight the significance of teachers’ pedagogical support and providing opportunities for meaningful transdisciplinary science investigations and speculative designing for more just and thriving futures.

**Contribution** The Critical Speculative Design Pedagogy framework developed suggests how such activities in the classroom can cultivate equitable, expansive science learning that is consequential to youth and their communities.


les dimensions, les sens et significations de cette notion. Ce sont entre autres des valeurs, des savoirs et des sentiments qui fondent cette conscience des enseignants camerounais du second degré.


Quels usages du numérique des enseignants et enseignantes ? Pour la cinquième année, l’académie de Paris a réalisé un sondage sur les usages du numérique auprès de tous les enseignants du second degré. Les quelques 3103 réponses (18,5% de taux de réponses) constituent une photographie des usages pour apprécier leur évolution depuis 2014. « C’est maintenant acquis,…


The recent inclusion of cultural capital into the English Ofsted Education Inspection Framework (2019) caused a ripple of discontent within some educational circles, with some suggesting it is indicative of ‘white, middle-class paternalism’. Here, we consider the political rise of Bourdieu’s concept of ‘cultural capital’ within the English Education Inspection Framework (2019), given that it now affects all English schools subject to Ofsted’s inspection. We also explore how one of the 19th Century texts in the GCSE English literature curriculum can be analysed through a queer prism, to offer a thought-provoking inclusive interpretation of the narrative and release its queer cultural capital. Finally, we invite classroom practitioners to deliberate their current pedagogical actions and consider adopting a queer pedagogy to counteract the pervasive heteronormativity that embeds assumptions of heterosexuality within school ecosystems; thus challenging the discomforting otherness and insidious silencing regimes that position LGBTQ identities as taboo and off topic.


The pursuit of multiple educational outcomes makes teaching a complex craft subject to potential conflicts and competing commitments. Using a data set in which teachers were randomly assigned to classes paired with videotaped lessons, we both document and unpack such a tradeoff. Upper-elementary teachers who excel at raising students’ math test scores often are less successful at improving student-reported engagement in class (and vice versa). Furthermore, teaching practices that improve test scores (e.g., cognitively demanding content) can simultaneously decrease engagement. At the same time, paired quantitative and qualitative analyses reveal two areas of practice that support both outcomes: active mathematics with opportunities for hands-on participation, physical movement, and peer interaction; and established routines and procedures to proactively organize the classroom. In addition to guiding practice-based teacher education, our sequential, explanatory mixed-methods analysis can serve as a
model for rigorously studying and identifying dimensions of “good” teaching that promote multidimensional student development.


The success of students with disabilities in school and community largely relies on productive family professional partnerships (FPPs). The Individuals with Disabilities Education Act (IDEA, 2004) recognises the importance of family collaboration to student success by mandating that parents be involved in the Individualised Education Plan (IEP) process as full team members. While several previous studies examined the perspectives of parents of children with disabilities on partnerships with educators, less research exists on teacher perspectives on family professional collaborations. Additionally, there are even fewer studies that focus on teacher perspectives on partnerships with parents of children with autism, a disability category which continues to increase in prevalence. The present study contributes to the literature by examining teacher perspectives on factors that build and hinder positive partnerships with families of children with autism. Researchers surveyed 25 Special Education teachers and conducted additional individual interviews and open-ended questionnaires to examine teachers’ first-hand experiences. Findings identified four common themes that educators felt helped and hindered collaborative relationships with families. Study results may lead to the development of specific family professional collaboration strategies that can be implemented and discussed in school districts, teacher trainings, pre-service teacher education programs and family workshops.


This article explores data from a group of British pre-service teachers (PST) following a teaching programme in South Africa. Their reflections are analysed in relation to assertions that such intercultural programmes do little to change hegemonic beliefs about the ‘other’. Analysis of questionnaire and interview data suggests that whilst these assertions have some validity, the issues are complex and nuanced. Findings indicate apparent shifts from object-based to relational views of the ‘other’, though these shifts were not always complete or fully developed. Sitting with uncertainty and discomfort prompted PSTs’ critical reflections demonstrating the interactive and dialogic nature of intercultural understanding and provided the pre-requisites for personal and professional development. We conclude that when appropriately orientated, teaching placements in the global South can encourage critical, relational pedagogies, intercultural understanding and a dialectical relationship with difference which can translate into positive shifts in PST beliefs and practice.

Dans quelle mesure la recherche peut-elle contribuer à transformer les méthodes d’enseignement ? C’est la question que soulève l’essor de programmes fondés sur des « données probantes ».


Renewable assignments are student created artifacts that have value outside of courses. However, more empirical inquiry in renewable assignments grounded in theoretical frameworks is necessary. In this study, students (N = 69) engaged in renewable assignments and were asked to report on their perceptions based on the self-determination theory of motivation and social justice principles. Overall, students reported higher levels of motivation as well as more opportunity to represent their identities for renewable assignments than traditional assignments. Students who opted to publicly share reported higher levels of competence and relatedness than did students who did not opt to publicly share.


That teachers’ achievement goals matter for teaching practices is an important premise of teacher motivation research. However, this notion is still little understood, particularly as most studies on this topic use global self-reports of overarching teaching practices. We therefore differentiate between ten teaching practices central to motivating lessons and introduce a diary approach for assessing them. Following a baseline achievement goal questionnaire, 134 German high school teachers completed 670 standardized lesson diaries concerning their subsequent lessons. Multilevel analyses illuminated robust linkages between teachers’ goals and teaching practices and speak to the merits of a diary approach for assessing teaching practices.


Rooted in the Greek tradition of Socrates and Aristotle, debate pedagogy utilizes the interpersonal ‘heat’ that comes with a clash in opinions to engage students in learning. Well-structured classroom debates can engage students, give them agency in their learning, and challenge them to view the layered perspectives that lie under the surface of topics across the curriculum. The proliferation of on-demand and asynchronous learning approaches presents a challenge for instructors who wish to hold live, synchronous, debates. It is frequently not possible to utilize traditional debate pedagogical techniques when students are not temporally or physically in a classroom space. Disruptions to traditional classroom learning caused by the COVID-19 epidemic only exacerbate the need to re-invent pedagogies for today’s dynamic higher education learning environments. Emerging tools and approaches show promise in rekindling debate pedagogy, however, relatively little scholarship exists to orient instructors who wish to deploy evidenced-based debate pedagogy in blended and online courses. This paper presents the results of an investigation of one technology-facilitated approach to deploying asynchronous and online debates. Findings from the
present investigation help to illuminate a path forward for instructors who wish to deploy structured classroom debates in online and asynchronous formats.


Pressure gradients serve as the key driving force for the bulk flow of fluids in biology (e.g., blood, air, phloem sap). However, students often struggle to understand the mechanism that causes these fluids to flow. To investigate student reasoning about bulk flow, we collected students' written responses to assessment items and interviewed students about their bulk flow ideas. From these data, we constructed a bulk flow pressure gradient reasoning framework that describes the different patterns in reasoning that students express about what causes fluids to flow and ordered those patterns into sequential levels from more informal ways of reasoning to more scientific, mechanistic ways of reasoning. We obtained validity evidence for this bulk flow pressure gradient reasoning framework by collecting and analyzing written responses from a national sample of undergraduate biology and allied health majors from 11 courses at five institutions. Instructors can use the bulk flow pressure gradient reasoning framework and assessment items to inform their instruction of this topic and formatively assess their students' progress toward more scientific, mechanistic ways of reasoning about this important physiological concept.


This article traces the actions and perceptions of preservice teachers who cope with cultural heterogeneity. The study used an interpretative qualitative method, which allowed us to examine the portfolios of 12 participants. Findings indicate that authentic experiences exposed the students to the reality of the pupils, enriched their knowledge, fostered intercultural competence, and allowed them to teach according to culturally relevant pedagogy. Findings have implications for the teacher training process, which must include experiences outside the school walls that will help teachers integrate cultural heritage into the classroom, preserve the students' languages of origin, promote multicultural dialogue, and enhance the visibility of the other.


Within the recent rise in the incorporation of contemplative practices in higher education, mindfulness stands out as the most studied and implemented practice. However, most of its studied implementations have been focused on interventions associated with mental health. Very little attention has been given to the study of mindfulness's potential broader educational impact. This study is based on the analysis of final assignments from the course „mindfulness and education„, taught to 673 students at three Faculties of Education between 2011 and 2018 and on a retrospective questionnaire. Results show that in addition to common effects of mindfulness (e.g., stress-reduction), many students recognised mindfulness as an educational practice that had
transformed their view of the nature of education and sometimes of life itself. The paper lends support to the understanding and framing of mindfulness as a formative educational practice that accords with aims of higher education.


Mastery of quantitative skills is increasingly critical for student success in life sciences, but few curricula adequately incorporate quantitative skills. Quantitative Biology at Community Colleges ([email protected]) is designed to address this need by building a grassroots consortium of community college faculty to 1) engage in interdisciplinary partnerships that increase participant confidence in life science, mathematics, and statistics domains; 2) generate and publish a collection of quantitative skills–focused open education resources (OER); and 3) disseminate these OER and pedagogical practices widely, in turn expanding the network. Currently in its third year, [email protected] has recruited 70 faculty into the network and created 20 modules. Modules can be accessed by interested biology and mathematics educators in high school, 2-year, and 4-year institutions. Here, we use survey responses, focus group interviews, and document analyses (principles-focused evaluation) to evaluate the progress in accomplishing these goals midway through the [email protected] program. The [email protected] network provides a model for developing and sustaining an interdisciplinary community that benefits participants and generates valuable resources for the broader community. Similar network-building programs may wish to adopt some of the effective aspects of the [email protected] network model to meet their objectives.


Teacher education is increasingly seen as of determining importance to the learning for sustainability agenda. Political momentum, support and funding are critical to advance teacher professional learning in this area. To be effective, teacher professional development must be seen alongside, and not in isolation to, other reforms and policies related to sustainability and education for sustainable development (ESD). At EU level, supporting measures are needed to accelerate current interest in learning for sustainability and to identify, share and scale exemplary national/regional policies on teacher education. To help countries turn commitments into action (‘walk the talk’), funding at national and EU level is crucial. Tapping into funding opportunities which have the potential to support large-scale reform (e.g. the EU’s European Social Fund and the Recovery and Resilience Fund) could be a game changer for learning for sustainability. This requires better visibility of existing funding at EU level as well as cross-government/inter-ministerial cooperation at national level to ensure learning for sustainability, including teacher education, is given the focus it urgently needs.

This research examined the imperatives of pedagogical updates for Mathematics education professionals: The digital technology sensibility in a resilient world. What informed this research is the need for considering better ways of impacting mathematical knowledge and skills in students as the usages of Mathematics are geometrically increasing in this world of Technological advancement. Quasi-experimental [...]
Efficacy Scale for Teachers (ASSET) were used: a version with the label of ‘ASD’ (n = 96) and another for ‘Asperger’s’ (n = 90). The scores obtained by the group asked about ASD were high according to the ASSET score range, while the scores obtained by the group asked about Asperger’s were medium. After comparing the results, participants asked about the label ASD showed higher levels of self-efficacy than participants asked about Asperger’s. These results could be a consequence of the consolidation of the ASD diagnosis among society and the higher presence of children with ASD in schools and cultural products, among other factors.

Si enseigner, c’est « faire passer » un savoir, il ne s’agit pas d’un simple travail d’assimilation et de présentation des connaissances. Au quotidien, les profs jonglent avec imprévus et nouveautés.

This paper argues for reconceptualising an educational curriculum that locates its primacy in practices. The argument is framed around the core purpose of education: to help people ‘live well in a world worth living in’. Living well and learning about what this means is typically guided by epistemologically based curricula, and conversely, school curricula determine the substance of education. We argue that this understanding of education is too narrow, and as a consequence, it severs the relationship between knowing and practising. We propose that a curriculum of mathematical practices is required for human flourishing, where the focus is on mathematical practices rather than predominantly on knowledge. To demonstrate our position, we consider different kinds of mathematical practices needed during the Covid-19 crisis. We examine how a practice-approach forms the basis for a future-oriented curriculum which might better equip individuals and societies to respond to conditions which disrupt their everyday circumstances.

This qualitative case study conducted in the United States from 2017 to 2020 examines how one in-service teacher’s (IST’s) coteaching practice shifted when collaborating with three different pre-service teachers (PSTs) during clinical practice. Through the analysis of recorded planning/assessing sessions, the authors identified primary discourse patterns and stance embodied by the IST. Over three years, the IST’s discourse changed, shifting positioning from that of leader to teacher educator to learner/collaborator. An increase in asking for input and decrease in justifying/explaining thinking indicated a collaborative stance. Implications for other TPPs interested in shifting an IST’s coteaching practice are provided.

Positive teacher-student relationships have been identified as important for teacher and student well-being and for high-quality teaching and learning processes and outcomes. However, research on the perceptions of teachers in higher education on a high-quality relationship with students and the perceived antecedents is still scarce. This study aimed to address this research gap by interviewing 15 Australian higher education teachers about their perception of forming relationships with first-year students. The results suggest that the quality of the teacher-student relationship comprises both a professional and an interpersonal dimension, reflecting the different roles teachers and students assume within it. These two dimensions can be further differentiated into various relational quality indicators, such as approachability, care, support, trust, and others. Furthermore, the results indicate that several contextual and personal attributes contribute to the development of this relationship. Implications about how to shape positive relationships between teachers and students in higher education are discussed.


This article critically considers the importance of educators asking, ‘who are the children we teach?’ before attending to questions of purpose, curriculum and pedagogy. Through examining the relationships between identities, place and time-space, the article contributes to wider debates about how geography can enhance our knowledge of educational institutions, systems, processes, experiences and landscapes. Written in the context of a ‘knowledge turn’ in England – in which supporting young people to engage with disciplinary and subject knowledge has been positioned by some as the central purpose of schooling – the article argues that the geographies of children and young people have, at times, been under-considered in education. To counter this, drawing on a case study of five young people’s narratives about London, the article uses the illustrative example of religion and identity to examine how the young people navigate multiple, sometimes contradictory, social spaces when constructing and representing their identities in London. The article concludes by arguing that for educators to truly empower young people in, and through, their schooling, it is of significant value for them to engage with the geographies of those they teach.


The term ‘digital resources’ is increasingly used in educational research to describe the specific knowledge and skills that constitute teachers’ professional digital competence. Educational policy documents, including the European Framework for the Digital Competence of Educators (DigCompEdu), deploy the term to reaffirm teachers’ need for special skills in using digital resources. However, educational research literature presents inconsistent views of the term, restricting its effective use in further research and the promotion of associated skills among pre-service and in-service teachers. To clarify the term ‘digital resources’ and support future research related to its application especially in empirical research on teachers’ professional digital competence, this systematic review aims to analyse the definitions of digital resources as a scientific term...
in 23 articles and to examine and compare the facets and aspects of digital resources. Finally, we derive a definition from the various perspectives and discuss the implications for the definition of digital resources as an aspect of teachers’ professional digital competence.


Study abroad has been seen as a key ingredient in promoting teachers’ intercultural competence. Yet, its effectiveness has been unclear. The objective of the current review was to examine the relationship between study abroad and pre- and in-service teachers’ intercultural competence as well as to analyze potential moderating effects. Based on 16 qualified studies, we found that study abroad was associated with teachers’ intercultural competence, with a small to medium effect (ES = 0.34). The relationship did not differ between pre-service and in-service teachers. Pre-departure, during, and reentry reflective guidance was found to have an influence on the relationship between study abroad and teachers’ intercultural competence. The duration of programs can moderate the relationship, but the moderating role of cultural distance was not significant. The results and further implications for institutions and participants are discussed.


Although asking questions is the most frequently named disciplinary practice included in the C3 Framework for Social Studies State Standards, little is known about how elementary-aged students learn to develop inquiry questions. In this study, we analyzed how 19 third-grade students in the U.S. Midwest Region developed questions related to economics, geography, history, and political science across five months during the 2017–2018 school year. We found that students were generally successful with developing questions related to the disciplines, but their questions were most often closed-ended. We provide implications for supporting students’ learning as they generate inquiry questions.


Cultural Historical Activity Theory (CHAT) can be used both as a theoretical and an analytical framework. It has been used in a wide variety of contexts over a wide variety of research objects in education and other fields requiring a comprehensive understanding of interactions within a system. At a theoretical level, the relation between double stimulation and instrumental mediation has been studied and understood, yet the link between double stimulation and conflicts of motives is understudied. How has scientific literature considered this avenue for research over the past ten years? A systematic literature review was conducted, and thematic analysis was performed in order to identify themes. As of the first quarter of 2021, scientific literature in education sciences does not yet reflect the interest and potential of this research avenue. Double
stimulation and its relation to conflicts of motives are key components to form volitional action in education contexts and is therefore a valuable research object.


L’objectif de cette recherche est de réfléchir aux facteurs de mise en œuvre d’une éducation plurilingue et interculturelle auprès des élèves nouvellement arrivés (ENA) âgés de 11 à 15 ans en France, en Italie et en Pologne. La problématique de cette étude porte sur la valorisation du plurilinguisme de ces élèves comme appui pour l’apprentissage de la langue seconde et levier de l’inclusion socio-éducative (Goë, 2015; Mendonça Dias et al., 2020). L’accueil et l’inclusion des ENA plurilingues et pluriculturels dans les classes constituent un nouveau défi pour les acteurs et les systèmes éducatifs (OCDE, 2016). Si les préconisations européennes soulignent l’importance de la prise en compte des connaissances en langues-cultures premières des élèves dans le processus d’enseignement-apprentissage (Cummins, 2011; Beacco et al., 2016), les recommandations officielles des pays ne les mentionnent pas systématiquement.

compétence plurilingue et interculturelle des élèves, ce qui n’est pas le cas dans la plupart des formations mentionnés par les enseignants de notre recherche.


Background Teachers’ self-reported stress is related to the quality of teacher–student interactions and students’ learning outcomes. However, it is unclear if teachers' physiological stress is related to child-centred teaching practices in the classroom and whether teaching practices mediate the link between teachers’ stress and students’ learning outcomes. Aims We studied the effect of teachers’ physiological stress and self-reported stress on their teaching practices and thereby on students’ learning outcomes in math. Sample A total of 53 classroom teachers and 866 Grade 1 students participated in the study. Methods Salivary cortisol in the middle of the school day and cortisol slope from morning peak to evening were used as indicators of teachers' physiological stress, in addition to self-reported teaching-related stress. Teaching practices were observed with the ECCOM instrument. Students’ math skills controlled for gender and previous skills were used as a measure of learning outcomes. Data were analysed with a two-level SEM. Results Teachers’ physiological stress did not have an effect on teaching practices or students’ math skills. Teachers reporting less stress used relatively more child-centred teaching practices compared with teacher-directed ones. These practices had a marginal effect on classroom-level differences in the gain of students’ math skills in Grade 1. There was neither a direct nor indirect effect from teachers' stress on students’ math skills. Altogether, our model explained 77% of classroom-level variance in math skills. Conclusions Teachers' self-reported stress has an effect on their teaching practices, which, in turn, have a marginal effect on students' learning outcomes.


Much research describes how mentor and novice teachers interact when pupils are not present (e.g., co-planning, debriefing). However, little research investigates how mentor/novice pairs interact when K–12 students are present. This gap in the literature is significant because research suggests that without intentional mediation, novices often fail to see much of what happens in classrooms. This article investigates and conceptualizes what 27 mentors think about mentoring practices that occur outside versus inside of instructional time. An analysis of mentor interviews found that mentors prefer to interact with novices outside of instructional time because they fear undercutting novices’ authority and autonomy when interacting with them during instruction. However, findings also suggest that hybrid practices (those that straddle the outside/inside boundary) are valued by mentors although they are rarely enacted. This finding has implications for programs interested in supporting mentors to diversify the practices they employ to support novice teachers.


In the wake of racial justice protests in the United States, many states adopted policies to constrain the discussion of racism, particularly contemporary and systemic racism, in
K-12 classrooms. Discursively framed as “critical race theory bans,” these policies enumerate lists of “prohibited concepts” to be eliminated from classroom instruction and curriculum materials. This brief document analysis provides an overview of first-wave prohibited concepts policies among the states to adopt such policies during the 2020-2022 legislative sessions. The analysis summarizes the prohibited concepts, teaching practices that remain allowed, and the nature of the prohibitions.


Due to the unprecedented situation caused by a global pandemic, the traditional way of teaching that is reliant on face-to-face interaction between teachers and students has been dismantled. This article looks into university teachers' experiences of teaching under lockdown, with an intention to understand what the change meant in terms of social practice. The research follows a qualitative design, in which ten university teachers were interviewed using a semi-structured interview guide. Three themes interwoven with a common thread were identified through teachers' reflections, including displacement, routine, and role. The common thread was identified as the interaction between teachers and students, and analysing the quality of this interaction led to understanding the social kernel of teaching as embedded in social practice, suggesting that physical dislocation demands teachers to recreate meaning in the new situation. This change has been seen as difficult, yet unpacking teachers' perceptions provided valuable lessons for the future.


This paper is based on personal narratives of three transnational women academics of colour, within education faculties in Australian universities. As postcolonial subjects we focus, on providing spaces for future educators, to find multiple ways of knowing, being, and relating. Reflecting upon our pedagogic practices, we analyse the empowerment afforded by our individual positionings in facilitating a deeper understanding of social justice and inclusion in our classrooms. Using collaborative autoethnography, we outline our endeavours to raise critical queries through Freire’s notion of conscientizacao. We unpack our own pedagogic frailties while enacting ‘pedagogy of discomfort’, as we subvert the proliferation of educational hegemonies considering it may lead to erasures of certain epistemologies. This paper conclusively highlights our efforts to ensure the creation of conscientizacao, in ourselves and our students, while concomitantly abnegating ‘pedagogy of rupture’ and being mindful of our individual positionings and our students’ varied contexts.


This study explores how blended classroom teaching (the integration of online courses with face-to-face instructions) equalizes educational outcomes across regions. We point out that besides the medium function, ICT can also transmit educational resources across regions, and the resource transmission function facilitates the equalization of educational
inequality across regions. Specifically, the model illustrates that blended classroom teaching transmits educational resources and increases the teaching resources in the underdeveloped regions. Thus, the number of high school graduates increases with more human capital from teaching services and less from student endowment; the investigation of 24 million high school students in 31 regions in China from 2013 to 2019 reveal substantial differences in the graduation rates between developed regions and underdeveloped regions, but the gap narrows significantly along with the fast increase of network multimedia classrooms; and the regression analyses find the number of high school graduates is significantly positively associated with network multimedia classrooms in underdeveloped regions, and with teachers in senior ranks in developed regions. All the findings are consistent with the model predictions.


Complaints about inappropriate attempts by a liberal professoriate to influence their students’ political attitudes and even punish those who disagree with them are common. Assumptions are made that because the profession leans left, professors must be trying to persuade their students to be like-minded. Little academic evidence supports this view. This paper expands on previous work by asking students at a mid-size national public university to assess their professors on average across their academic careers both in terms of the frequency of political advocacy in the classroom as well as the extent to which it is experienced as an inappropriate teaching tactic. I posit that attitudes are a function of a perception of ideological difference, as well as Fenno’s Paradox. That is, students are more likely to perceive professor bias at the national level than at their particular university. Results indicate that a non-trivial minority of students (23%) feel that professors do inappropriately politicize the classroom, and that perceived ideological difference between student and professors predicts this view. I also find that similar to how parents tend to like their local schools while lamenting the state of education in general, students are much more likely to perceive professor bias as a national problem than a local one.


This study aims at investigating the predictive effects of online teaching readiness factors on instructors’ satisfaction and confidence in the emergency online teaching context. The target population is instructors who experienced online teaching during the COVID-19 pandemic, particularly in South Korea. Two hundred and thirteen instructors from 15 universities in South Korea responded to a survey asking about online teaching readiness (technological, pedagogical, online communication, time and environment management, and institutional support readiness), satisfaction, and confidence. Hierarchical regression analysis showed that pedagogical and online communication readiness have significant positive effects on both satisfaction and confidence, while showing lower means than other online teaching readiness sub-categories. This research concludes that specific strategies and skills for pedagogical and online communication readiness have to be stressed in professional development programs for online teaching.

Background Everyday digital technologies play an important role in mediating human activity that is socio-political and humanizing. The everyday cyborg engages in speculative fabulation that is about fantastical new world-making in times of multiple crises. The work presented in this article builds on previous projects that have examined how everyday cultural practices mediate consequential learning that is transformative for communities of color.

Methods Two social design-based studies draw from ethnographic analysis of two teacher education courses as well as two after-school programs focusing on digital fabrication and making and tinkering. Participants included 22 undergraduate pre-service teachers and 10 middle school students from schools in Latinx communities.

Findings Collaborative cyborg activity, where expertise is distributed, emerged as pre-service teachers and youth collectively engaged with everyday socio-political issues. This article highlights cyborg sociopolitical technical reconfigurations, where learners assembled ideational and material tools to craft objects of learning activity that went beyond those established by schooling and imagined new possible futures.

Contribution Designing learning ecologies for the everyday cyborg, in this case pre-service teachers and non-dominant youth, fosters an engagement with everyday dilemmas in ways that serve as catalysts for further learning and the new world-making of speculative fabulation.


Reflective practices in education are widely advocated for and have become important components of professional reviews. The advantages of reflective practices are many; however, the literature often focuses on the benefits to students, rather than the benefits for the educators themselves. Additionally, the extant literature concerning reflective practices in education is laden with conflicting terminology and complex studies, which can inhibit educators' understanding of reflective practices and prevent their adoption. As such, this Essay serves as a primer for educators beginning reflective practices. It briefly describes the benefits to educators and different classifications and modalities of reflection and examines some of the challenges that educators may encounter.


Cet ouvrage est destiné à ceux qui sont concernés par l'école dans ses différentes déclinaisons dont l'accession au savoir mais aussi dans son soutien à l'activité de penser. C'est à cette question que nous avons tenu à consacrer de nombreux développements dans la mesure où selon nous, toutes écoles et toutes pédagogies quelles qu'elles soient, ne peuvent se concevoir sans cette dimension. Il s'agirait au fond d'aider un enfant apprenant à acquérir un statut de sujet éclairé et désormais attentif à tous les dévoiements, pour tenter, de sa place, de les conjurer... une chimère, une illusion... et pourquoi pas un vrai enjeu ?
This paper examines key effective and practical online strategies for teaching and learning literature subjects in online education. The present study also explores the leading concepts and principles of e-teaching strategies and extends to address the way to adopt literary lesson plans to various types of college students, determine subject descriptions, class activities, assignments, assessments, and expectations with students, and build rapport and communication with the students. This article discusses how to enjoy appropriate online media, channels, platforms, and e-pedagogical tools to help the learners and support the college curriculum in literary subjects e.g. poetry, fiction, and drama. The results show that online pedagogues portray and guide interactive literary texts and skills to the students, educators, and course designers and can facilitate instructional methods in learning the English language and literature online.

On voit se multiplier les certifications visant à évaluer le niveau en langues des élèves. Mais cela ne risque-t-il pas de favoriser le bachotage par rapport à la pratique ?

A majority of American adults value the role that art plays in education at the K-12 level. However, the potential benefits of arts-based, kinesthetic learning activities have not been well-documented at the college level. Twenty-three undergraduate students participated in passive learning, traditional active learning activities and arts-based kinesthetic learning activities throughout one semester in a 300-level health psychology course. Overall, students reported more positive perceptions, and higher retention, of course material taught using arts-based kinesthetic activities compared to traditional active learning activities or passive learning. More empirical evidence is needed to determine the potential benefits of arts-based, kinesthetic activities in the college classroom.

Research and academia have been recently affected by the Coronavirus (COVID-19), and physical classrooms and laboratory experiments have been affected significantly due to the recent laboratory closures. This has led to innovative approaches to curb this problem. To address these difficulties in teaching bioengineering related courses that is of significant interest to students of the Faculty of Engineering in Ahmadu Bello University, Zaria, Nigeria, and of course, useful for engineering-based higher education institutions
a transitional pedagogy: Communicate, Active, Collaborate, Problem-based Solving, Learning and Assessment (CACPLA), which encompasses blended learning, was developed as a new teaching and learning strategy. In this study, we show that this new strategy can initiate a steady transition from physical classrooms to full online instruction for some subjects in engineering. This method has been trialled as an exercise for a module as part of an envisioned biomedical engineering degree programme which can be integrated with local industries and research institutions in sub-Saharan Africa. The teaching materials and environment were carefully designed and 253 students of third and final year classes participated as the experimental group. Also, the effect of critical thinking, pre-lecture, and post lecture on the overall performance of the students was assessed. Two questionnaires were designed for data collection, (a) for technical questions, (b) for receptiveness. The result of a student survey suggests favourable reception of the teaching methodology, which aided their understanding of the general bioengineering concept as applied to the materials chemistry and mechanical measurements context. It was noticed that 80% of the students indicated that the blended learning method was sufficient in achieving the learning outcomes of the study. The method is envisioned as a useful and sustainable complement to traditional teaching pedagogies and workshops due to the convenience and relatively high accessibility to Zoom and Google Meet Apps which can be readily employed without incurring significant costs.


Global education systems face an array of huge challenges, including question marks over how to remain relevant in a fast-changing world. This report Teaching for the Future: Global Engagement, Sustainability and Digital Skills outlines the...
Scientist Spotlight assignments, like how noncontent Instructor Talk might foster student shifts in aspects of science identity.


This study presents topic modeling based bibliometric characteristics of the articles related to the flipped classroom. The corpus of the study consists of 2959 articles published in the Scopus database as of the end of 2021. In addition to the bibliometric characteristics of the field, research interests and trends were also revealed with the study, which was based on the topic modeling-based bibliometric analysis method. According to the results of the study, an increase in the number of publications has been observed since 2015. Nearly one-third of the studies are of United States origin. According to the findings of the topic analysis in which the research interests and trends in the studies were revealed, the articles in this field were gathered under 16 topics. Considering the number of publications of the topic, it was seen that the three most voluminous topics were “Performance and perception”, “Nursing education” and “Effectiveness and motivation”, respectively. It is thought that the results of the study will provide a general perspective to the researchers in this field and provide important outputs in the context of monitoring the issues that may become prominent in the future.


While many recent curriculum reforms recognise the value of history of science (HOS) in science teaching, in-depth investigations into teachers’ experiences of planning HOS-based science lessons have been rare. We present a case study of two groups of preservice science teachers (PSTs) who collaboratively planned high school science lessons using HOS. The research aims were to understand what design issues arose and how they unfolded as each group planned the lesson. A design issue arises when group members dispute over a topic related to lesson planning and there is a need for decision making. We identified several major design issues around selecting a suitable history, adapting history, teaching a topic with no correct answer, balancing science and history, and empathising with people from the past, which manifested differently across the two groups. PSTs’ reflections suggested that the collaborative planning experience helped them understand the limitations of content-focused pedagogical methods in planning HOS-based lessons and recognise various ways HOS can be used to enrich science teaching. The study sheds light on some challenges of planning an unfamiliar type of science lesson and how a collaborative planning experience can create opportunities to broaden PSTs’ knowledge of science instruction.


concepts dominate university science teaching, and much of this content is taught without sufficient connection to students’ prior knowledge or everyday experiences. As this can be problematic for students, the aim of this research was to determine the utility and effectiveness of a professional development module on using analogies to make these important connections for learning. We conducted qualitative content analysis of analogies in teaching plans designed by 75 graduate teaching assistants who participated in the module between 2018 and 2021. The module is part of a course on Teaching Science at University (TSU) and pairs cognitive science with a structured analogy design tool, originally developed for K–12 education. Most course participants used the tool systematically and developed analogies linking abstract science target concepts with students’ everyday experiences; however, some analogies contained a high cognitive load or unaddressed anthropomorphic logic that might negatively impact learning. Participants’ reflections on their learning in the module suggested a new awareness of the need for planning and for active student discussion of analogies, particularly where they break down. This research has shown that TSU’s stepwise guidance using a structured pedagogical tool for planning and teaching with analogies is highly suitable for higher education.


In this paper, I use a debate between Albert Einstein and Henri Bergson about the nature of time as a heuristic tool to understand the nature of teacher subjectivity. This debate outlines notions of time as measurable and time as duration or flow. These two interpretations of reality, one from a physicist and one from a philosopher, are used to examine the bi-Discoursal nature of the teacher identity. An ethnographic participatory action research project in a preschool class in England finds that teachers operate as both physicist and philosopher, sometimes simultaneously. At times, the teacher is a physicist, measuring the geometry of child development and comparing it to a fixed point of normative expectations. At other times, the teacher is a philosopher, existing in the moment with children. The simultaneous existence of these two identities is a cause of anguish, forming a conflicted and contested self.


The associations between teaching behaviors and students’ affect are examined in cross-sectional studies in younger samples, but the temporal direction of these associations in high school students is unknown. In this longitudinal study, adolescents (N = 188; 88.8% White; 69.7% female) completed instruments to measure teaching behaviors and adolescents’ negative (e.g., cheerful) and positive affect (e.g., ashamed) twice, four months apart. Adolescents’ negative affect predicted future negative teaching behavior and negative teaching behavior marginally predicted adolescents’ future negative affect. Positive affect predicted future socio-emotional teaching behavior and vice versa. The findings provide insight into which teaching behaviors impact students’ affect and the impact that students’ mental health has on teaching behavior, an area of study that has received limited attention.

We investigate the effects of peer feedback training (enhanced by expert feedback) on pre-service teachers’ feedback quality and beliefs. Intervention group 1 (IG1) analysed classroom videos before the feedback training, while intervention group 2 (IG2) additionally received expert feedback on their video analyses. IG1 and IG2 were compared to a control group (CG). Results show pre-service teachers in IG1 and IG2 improved their peer feedback quality and beliefs in comparison to the CG. Expert feedback (IG2) lead to greater increases of peer feedback quality than without (IG1). This study highlights the role of expert feedback when training peer feedback.


With heightened equity pursuits in 21st century schools and the key role of assessment in teachers’ concerns with educational equity, scholars have recently attempted to empirically investigate teachers’ conceptions of fairness in classroom assessment. This study contributes to this growing literature and draws on interview data from 27 experienced high school teachers to further appreciate the factors that propel teachers’ fairness conceptions. The results indicate that the teachers’ conceptions of fairness in classroom assessment were influenced by three themes: (a) individual mechanisms, (b) social mechanisms, and (c) dialectical relationships between individual and social mechanisms. These themes underscored how teachers’ individual philosophies and experiences interacted with their encounters with social conditions of society, schools, and classrooms to influence their conceptions and articulated practices of fairness in classroom assessments. The results contribute to provoke conversations around assessment fairness education during pre- and in-service programs.


The aim of this research was to assess students’ ability to explain scientific phenomena by means of a POE pedagogical tool. To achieve this aim, we conducted home experiments in a digital environment. In this qualitative and transversal ex-post-facto research, 775 pupils (aged 13–18 years) enrolled in compulsory secondary education from the Canary Islands were recruited. Data were collected using a digital questionnaire (self-designed), which showed acceptable reliability (α = 0.8). According to the results, multimodal POEs with home experiments within multimedia settings were perceived by the pupils to be a useful tool for teaching science on day-to-day. Students also found the POE activities to be motivating and engaging. Lastly, we present the calculation of POE scores and a method for assessing scientific literacy.


Background This article considers the speculative and pedagogical character of campus abolitionist organizing. Extending education research into the knowledge
(re)producing functions of radical activism, we draw upon the Black Radical Tradition to theorize the intersections of learning and imagination in both activism and education. Method The article centers an autoethnographic case study emerging from the authors’ experiences at University of Pennsylvania and their conflicted positions as campus organizers and educational laborers. Centering a direct action around university reparations, the paper draws on recollections of the event and its preparations as well as audiovisual and written documentation. Findings Analyzing our experiences as educational laborers and organizers struggling toward liberation, we document movement-driven learning practices and strategies for navigating contradictions between the university’s professed public mission and the realities of its exploitation of neighboring communities, which has been the focus of national campus organizing in the wake of the 2020 protests for racial justice. Contribution We offer the concept of organizing pedagogies to foreground the role of activism in producing and disseminating knowledge and fostering contexts for collective learning, as well as the role of the radical imagination in shaping activist educators’ mobilizations to advance freedom struggles within and beyond campus.


Government policies increasingly call for educators to teach for social justice. This paper presents auto-ethnographic narratives about how two higher education teacher educators aspire to teach with a focus on social justice education. This paper supports the role of reflexive and critical reflections of onto-epistemological beliefs in teacher educators’ work to give meaning to the wider social contexts, including the neo-liberal hegemonic higher education agendas, influencing their work. The narratives shared in this paper demonstrate how teaching with a social justice focus in higher education is a delicate balancing act, navigating personal beliefs and understandings about justice and inclusive knowledge.

Seisekeyeva, N. (2022). L’utilisation des plateformes pédagogiques pour développer des compétences de communication orale en FLE au Kazakhstan: aspects didactiques et pédagogiques (Phdthesis, Aix-Marseille Université, France ; Université Kazakhe Nationale Pédagogique Abaï, Kazakhstan). Consulté à l'adresse https://hal.science/tel-04073449

L’agir des enseignants de Français de Langue Étrangère (FLE) au Kazakhstan met en avant le développement des compétences de communication orale des étudiants kazakhstani. Les activités orales servent de moyen pour systématiser les savoirs linguistiques. L’objectif de cette recherche est de savoir dans quelle mesure l’enseignement/apprentissage du FLE, via des plateformes pédagogiques, permettrait d’améliorer l’agir enseignant afin de développer les compétences de communication orale des étudiants. Pour ce faire, nous proposons une plateforme pédagogique basée sur le programme Moodle pour l’enseignement de l’oral sous forme de séquences didactiques. Celui-ci s’appuie sur les principes de l’approche communicative/actionnelle à distance. L’approche clinique/expérimentale nous permet avec ce dispositif, dans une perspective comparative, d’observer et
d’enregistrer l’action enseignante, afin de déterminer les moyens mis en œuvre pour enseigner l’oral. Les entretiens d’auto-confrontation nous donnent accès aux motifs qui poussent les enseignants à agir. Les résultats indiquent que les deux stratégies discursives employées sont le Moodle universitaire et la plateforme communicative ZOOM accessible au public. Moodle et ZOOM aident à soutenir le développement des compétences orales des étudiants. De ce fait, si l’on veut former les enseignants à l’enseignement de l’oral dans un contexte multilingue, il est primordial d’y intégrer la didactique via des plateformes pédagogiques.


This study explores a group of social studies teachers’ conceptions of citizenship by taking into consideration the country’s increasingly authoritarian political culture. It offers an analysis of semi-structured interviews carried out with 20 teachers working at state middle schools in a relatively secular city. The study found that the majority of the teachers are subscribed to a non-democratic conception of citizenship that prioritizes an uncritical loyalty to the nation, inculcates passive compliance, relies on a pro-Muslim notion of human rights, and makes little room for political issues discussion. Despite that, some teachers seem to develop oppositional discourses and seek ways to claim their agencies. The study concludes that the authoritarian Islamic nationalism in power has intensified the ethno-religiously nationalist, statist, and duty-centric aspects of citizenship education (CE). Some teachers’ explicit emphasis on pro-Islamic and anti-western discourses and almost all teachers’ explicit concern to stay away from politics emerge as novel characteristics that are consistent with the dictates of Turkey’s authoritarian regime. It seems authoritarian populist nationalism redresses citizenship as an exclusionary notion grounded in race, ethnicity, religion, and civilizational claims. Insights from this research may help the advocates keep CE supportive of democratic values under authoritarian conditions.


We investigated how texts can be part of a Methodology of Teaching Physics course in a Brazilian university and its relationship with the history, reading conception and values of a regent’s professor. We also investigated the students’ perceptions about the variety of texts proposed and the practice of reading in physics education. We conducted observations of the classes and an individual interview with the professor of this course. The results show that, based on this professor’s perceptions of the educational needs of these students, he promotes actions that contribute to the education of physics teachers as readers of a variety of texts.


Background Scholarship demonstrates that Black girls’ capacities to imagine possible futures in computing are constrained by narratives of white masculinity and misogynoir embedded within computing. Building on race critical code studies and identity-as-
narrative theories, we examine restorying through Black womanist storytelling methodologies for integrating Black girls’ intersectional identities when designing and reimagining their computing futures. We ask: How might womanist storytelling methods support one Black girl in restorying possible computing futures?

Methods We present a case focused on one study participant, Heather’s, restorying practices situated within a larger workshop wherein marginalized youth reimagined dominant narratives about computer science (CS). This was by creating interactive quilt patches using paper circuits and microcontrollers that challenged dominant narratives of white masculinity and misogynoir normalized throughout the field.

Findings We see that restorying through womanist storytelling methods allowed Heather to (1) deconstruct narratives of white masculinity and misogynoir throughout CS education by centering Black women’s ways of knowing and doing, and (2) restory the past to enact possible CS futures and identities through computing.

Contribution In the discussion, we address challenges and successes with integrating Black girls’ experiences with speculative methodologies in learning sciences research.


The purpose of this paper is to examine the complex relationships between educational policy and classroom practice. By employing a sociocultural perspective, we examine formulations inscribed in socio-material artifacts about what students should learn and how they should engage with knowledge. We explore how these formulations are mobilized in instructional work and the implications this activity has for student participation. To address this issue, we analyzed video data of how teachers invoke competence aims from the national curriculum in their instructional work in six classrooms. The analytical procedures were derived from interaction analysis. The analysis focuses on how such formulations explicitly mediate social interaction as it unfolds on a micro level. The findings show that competence aims gain different functions as they are mobilized in classroom practice; in other words, they serve different purposes in teachers’ instructional work and anticipate different modes of student participation. In this study, the competence aims were (a) invoked as a source of authority, (b) translated into instructions, and (c) mobilized to obtain social order in the classroom. More rarely, the competence aims were used in meta-level discussions, where they functioned to reach agreements on how to pursue work toward joint goals. We discuss the implications of these ways of invoking competence aims for student participation.


Student behavior problems in general-education classrooms present a major barrier to effective teaching. Behavior challenges, such as disruptions, noncompliance, and peer conflicts, reduce instructional time, whereas prosocial behaviors, such as paying attention, being ready to work, asking for help, participating in class, and completing homework, improve academic performance. Most interventions developed to address student behavior problems were not designed for general-education students in typical classrooms. The purpose of this paper is to present preliminary results from a novel
intervention developed to enhance behavioral self-management skills among all upper-
"We Have Choices, a universal intervention, was designed to increase students’ capacity to make appropriate behavioral choices and decrease teachers’ responsibility by transferring behavior management to students. An initial randomized controlled trial with 86 fourth- to sixth-grade teachers and 2055 students suggested that We Have Choices was associated with improvements in student-reported use of self-management strategies, teacher-reported student prosocial behavior, and teacher-reported self-efficacy in behavior management and instruction. Teachers gave the program high scores for social validity, suggesting a good fit for their classrooms.


Dunbar and Baker (2014) identify the personal experiences of teaching as “emotional labor” based on Hargreaves (1998) “emotional practice” of teaching. We engaged in a collaborative self-study investigating the emotional work of teacher educators during a global pandemic. We examined the role of liaison in our context - university faculty working to support teacher candidates in school placements for a “professional year.” Liaisons serve in “boundary crossing” (Akkerman & Bakker, 2011) roles and negotiate stressors within multi-membership across contexts. The development of teacher educators would benefit from explicit attention to care, relationships, and negotiating boundaries in sites of clinical practice.


Many departments in colleges and universities require a capstone course that involves the students conducting a research project. This author has had over 20 years of experience teaching such a capstone course and describes a flexible research method for student research projects – the vignette study (an experiment embedded in a survey). She also has teams of undergraduate students working in her lab for research credit make progress on a vignette design as one of several research activities. The vignette study can be used for students across many majors, including but not limited to sociology, psychology, criminal justice, nursing, social work, and marketing. Detail is provided on how to teach a capstone course using this flexible research method.


In 2014, the popular conversation about safe space in the classroom tended to mock marginalized students seeking protection. Nearly a decade later, the discourse has become protectionist toward majority students allegedly discriminated against by being informed that they benefit from racism, sexism and heterosexism. What, then, does it mean to talk about making classrooms safe spaces for learning? Through defining six
considerations for safe space, we advocate for all colleges, faculty, and students to better facilitate inclusion.


The aims of the study were to understand the pre-service science teachers’ experiences about Algodoo Based STEM Education, to define views about it and, to emerge its influences on pre-service science teachers. Accordingly, case study method was utilized in the study. The participants were 30 pre-service science teachers who were fourth grade in a medium-size state university in Turkey. An intervention was performed to inform pre-service science teachers about Algodoo based STEM education during three weeks. The data were obtained from STEM activity plan, STEM activity plan evaluation rubric, and semi-structured interviews. Interviews were analysed through using descriptive and content analysis techniques together. Algodoo based STEM activity plans were examined by two researchers and evaluated according to the STEM activity plan evaluation rubric. According to the findings, pre-service teachers were planning to use Algodoo software in STEM activity mostly in elaborate stage and on physics topics. Although they have a few difficulties in using Algodoo software, they were aware of the contribution of Algodoo simulations to students, teachers and STEM education. Moreover, they mentioned the positive effects of this intervention on them such as being happy, increasing motivation, providing professional development. The findings of the study are discussed in line with the related literature and suggestions were given.


Physically active learning (PAL) has been advocated as a strategy for enhancing young people’s movement and learning. To understand how PAL is accepted, adapted, and used by teachers, this study interviewed 16 teachers. The concept of sensemaking and thematic analysis was used in the study. The findings illustrate that teachers made sense of PAL through the lens of professional identity, using PAL to vary their teaching and include students of varying abilities in learning. We conclude that teachers may be more likely to interact with PAL if primacy is given to its educational purposes.


The teaching profession is characterized by high demands and teachers who thrive are better able to navigate their demanding context than teachers who survive. Based on theories on strengths use we propose that strengths interventions which help teachers to identify, use, and develop their strengths can enhance their thriving (vitality and learning) which enables them to perform better. In addition, based on the socioemotional selective theory we propose that strengths interventions are especially beneficial for older teachers because it fits their goals and skills. We conducted a quasi-experimental study, in which 152 teachers and their team leaders participated in a strengths intervention. Longitudinal survey data indicated that the strengths intervention
contributed to older teachers’ (≥ 46 years old) vitality, which in turn, contributed to their performance. No significant effects were found for younger teachers. We discuss the implications of our study for older teachers.


This article explores school-home collaboration as a pedagogical phenomenon and contributes to a rationale for collaboration between school and parents in upper secondary education. The theory of practice architectures is used as an analytical lens. It sheds light on arrangements that enable or constrain the semantic, social, and physical spaces where students, parents, and teachers encounter each other as collaborative partners. Six upper secondary schools participated in the study; the dialogue café method was used to facilitate conversations between stakeholders to explore and verify this phenomenon. The study revealed three key aspects that require attention when developing collaborative practices: (a) clarification of the teaching profession’s obligations; (b) engaging and empowering students’ agency; and (c) moving beyond a fire-fighting approach. In addition, the need for further research to operationalise the safeguarding of students’ and parents’ rights, and support for students’ agency, in the context of school-home collaboration.


Engagement is positively correlated with many educational outcomes. However, engaging learners in online learning is often challenging. In this study, a conceptual framework comprising five interrelated factors (instructors, learners, content, technology, and environments) was proposed. The purpose of the study was to explore how learners could be engaged by following the conceptual framework in synchronous online learning. Fifty-five adult learners took part in the study. Specific strategies were applied in four classes. A survey with 38 five-point Likert scale items and an open-ended question was administered. Quantitative and qualitative data were collected and analysed. Results showed that instructors, learners, and content were the core factors affecting learners’ engagement. Comparatively, the learners’ engagement was less affected by the factors of technology and environments. Results further showed that useful strategies to engage learners included providing opportunities for instructors and peers to interact frequently; having relevant content that could apply to practice; involving interactive activities like group discussions and peer feedback; and having informal conversations with individual learners. This study suggests that future studies can investigate facilitating synchronous online discussions, establishing social connectedness, and using technology to monitor learners’ engagement automatically.


Abstract English as a foreign language (EFL) textbooks typically present a prescriptive typology of three or four conditional types. We examine the extent to which this long-established English Language Teaching (ELT) typology is reflected in four varieties of English by comparing the forms and functions of four samples of 620 if- conditionals from
French school EFL textbooks (TEC-Fr), French L1 Learner English (OpenCLC-Fr), Web English (EnTenTen15-S) and British English (BNC-S). The ELT typology accounts for considerably less than half of if-sentences in the reference data. Even in the EFL textbooks, only 57% of if-conditionals match the typology explicitly taught in their grammar sections. For many formal and functional features, the learner data sits halfway between the distributions of the textbook and reference data. We conclude that the ELT typology needs to be adapted to provide a more representative account of if-conditionals that focuses on L1 and L2 usage and meaning over form.


Teacher education programmes need to provide opportunities that support the integration of theory with practice. To date, there is little research on how to help preservice teachers apply professional knowledge to an important aspect of practice: lesson planning. The present research developed an educational approach to lesson planning by drawing on research on professional vision and analysis of teaching. The approach shows what kinds of connections may be established between professional knowledge and lesson planning decisions. These connections require reasoning about possible learning effects of instruction according to principles of teaching and learning. To help preservice teachers make connections, a scaffolded progression was created using research on lesson planning, case methods and pedagogies of practice. This progression suggests providing preservice teachers with opportunities for the gradual application of professional knowledge to iterative cycles of lesson plan analysis and lesson planning. A tool for the implementation of this approach, the Lesson Analysis and Plan template, was designed through a research-practice partnership in a teacher preparation programme. Advice to future implementers of the template is discussed based on field experience.


Computer-based learning applications and mobile technology have transformed many aspects of the educational experience over the last decade, producing software aimed at improving learning efficiency and streamlining the presentation of course materials. One such class of software, purpose-created to take advantage of spaced learning and spaced testing principles, are electronic flashcard applications. We provide a perspective on the novel use of the Quizlet flashcard application in a tertiary educational setting. To reduce cognitive load for international graduate dental students taking a pharmacology review course, we implemented Quizlet, which integrates both spaced learning and self-testing, to improve the student learning experience. This study assessed students’ perceptions of the Quizlet flashcard system in a student cohort comprised of two consecutive years’ classes (n = 51 students in total). Results indicated broad acceptance of Quizlet based on ease of use of the software and ease of study of the material. Our data provide insight into the use of this common software in a professional healthcare tertiary education setting and further demonstrate the successful application of electronic flashcards for a mixed international student cohort. Further research should
include an assessment of the impact of flashcard on long-term knowledge retention in this setting.


The principles of inclusive education largely accepted by governments of different countries require differentiated classroom instruction to meet the diverse needs of individual students. Despite this, teachers have differing experiences and understandings about implementing differentiated instruction (DI) and heterogeneous classrooms. This narrative study aimed at exploring the meanings of DI in the Eritrean context, where teachers are not explicitly familiar with the concept, although their teaching practices reflect some level of differentiation. The research data consisted of 17 narrative interviews with Eritrean mathematics and science teachers. The results of the narrative analysis showed that the teachers constructed five meanings of DI in their narratives: as a caring orientation, as a flexible pedagogic approach, as a self-reflective process, as a failed attempt and as a demanding approach. The majority of the narratives were found to produce positive meanings of DI, and the teachers constructed strong agency towards carrying out DI. These examples of sophisticated DI practices in the teachers’ positive narratives could be utilised to implement DI, even in situations where teachers have limited resources and training and in contexts with large class sizes.


This paper proposes a scenario-based learning (SBL) methodology for teaching Computational Thinking (CT). The presented scenario includes educational material that teaches the basic concepts of a Python course for beginners. The scenario allows the educator to utilize a combination of tools and services and follow a mind map. Moreover, it presents a story through steps which the Generation Z students can follow to learn, understand, and test their acquired knowledge on the Python programming language while engaging in non-coding-related topics such as the history of coding and coding ethics. The proposed SBL methodology allows teachers of CT to familiarize themselves with a series of tools (e.g., Twine, Kahoot!, Repl.it, Discord, and Gather.town) so as to facilitate Gen Z students to learn in synchronous and asynchronous educational environments. The SBL methodology was assessed by using a variety of inspection methods depending on the scope of the individual using the method (e.g., the effectiveness of the tools for the educator, the ease of use, and the interest generated by a Gen X student). The assessment results were quite encouraging.


Given the importance of their roles in society, the education of professionals is a central concern for providers and recipients of public services. In this article we consider the contribution of research on professional learning to current debate on the form and content of professional education. This mapping review asked, ‘What does the research
literature tell us about the characteristics of research into professional learning across professions? We identified and synthesised primary research involving post-qualification professionals’ professional learning. We searched seven databases using terms such as ‘professional learning’, ‘professional development’ and ‘continuing education’ from 2000 to date. We carefully screened articles against agreed criteria, extracted data and mapped the findings. After removing duplicates, 20,616 records remained. After full text screening, 356 articles were included: 266 from teaching (75%), 77 from healthcare (22%) and 13 from another profession or cross-professional (4%). Three included papers that spanned professions. Only 6% of articles studied the institution as the unit of analysis (rather than the individual). Around half of the included papers (49%) included an intervention. Most teaching interventions were proximal to the workplace whereas most healthcare/other studies were distal to the workplace, perhaps reflecting stage of development of the research field. Our study synthesised a heterogeneous literature to indicate the types or research that are needed to progress the debate. The clear differences in ‘style’ between professions suggested that collaboration could provide mutual benefit. Future research requires studies that report research in ways that lend themselves to evidence synthesis or replication.


Les termes du débat sur la place et le rôle des entreprises dans l’élaboration des formations semblent marqués par une représentation commune, celle d’une nécessaire adaptation des formations professionnelles aux besoins en compétences des entreprises. À cette vision fondée sur un strict partage des rôles entre structures éducatives et entreprises, ce Céreq Bref propose une alternative. S’appuyant sur un ensemble d’initiatives et de pratiques à la fois anciennes et récentes, il s’intéresse au développement d’une logique de co-construction des processus de professionnalisation, sans renoncer à la nécessité de maintenir de solides repères collectifs nationaux à travers les certifications.


The relationship between the breadth of the curriculum which university students followed at secondary school and their degree attainment or their entry to employment is studied using a series of surveys of graduates from Scottish universities between 1960 and 2002. The relationship of the school curriculum to the later experience of students who entered university has not been extensively studied. Scotland is a useful case study for this purpose because breadth of study at school was a core feature of school-leaving assessment from the origins of modern secondary schooling in the early twentieth century until the end of the century. Breadth of learning was also a principle of the dominant university tradition in Scotland from the mid-nineteenth century onwards. The conclusion of the analysis is that breadth was associated with propensity to enter professions rather than managerial occupations, and to avoiding low-status occupations. But also, for students with relatively moderate or low attainment from school, breadth was associated with a lower chance of gaining the highest attainment at university.

Entrepreneurial Intention (EI) is one of the dimensions most studied and validated scientifically in the literature associated with entrepreneurship. This study intends to go one step further in developing the literature by presenting little studied dimensions as direct antecedents of EI. Its aim is to analyse the influence of the dimensions of Religious Beliefs, Psychological and Cognitive Factors, and Social Influence on the EI of students in higher education institutions (HEI). Five hundred and eight questionnaires were collected from higher education students, 32% of them male and 68% female. The results show that the model proposed has good explanatory power and confirms its robustness in forecasting students’ EI, validating all the research hypotheses with very robust and statistically significant factor loadings. This corroborates the scarce literature on the subject, especially concerning the influence of Religious Beliefs on EI.


In the Reform Era, the Chinese Government has placed great emphasis on the role of education in ensuring the economic success of individuals and of the country as a whole. While vocational and academic post-secondary qualifications are officially set at the same level, vocational education is positioned at the bottom of the educational hierarchy and suffers considerable societal prejudice. Drawing on the most recent nationwide-representative data, we investigate the labour market positioning of graduates from the two types of education in terms of their income, occupation, and level of employment precariousness. The results suggest that: (1) vocational graduates earn less than academic graduates; (2) the type of post-secondary education is significantly correlated with the likelihood of obtaining white-collar high-skilled positions; and (3) vocational graduates face greater precariousness in their jobs than academic graduates do. This study also reveals that the hierarchically stratified post-secondary system may be a source of economic inequality in the Chinese Reform Era. Moreover, it demonstrates that the visible hand of the state seems to further facilitate the reproduction of current forms of inequality that leave an increasing number of graduates in marginalised labour market positions.


Federal incentives and requirements under the Obama administration spurred states to adopt major reforms to their teacher evaluation systems. We examine the effects of these reforms on student achievement and attainment at a national scale by exploiting the staggered timing of implementation across states. We find precisely estimated null effects, on average, that rule out impacts as small as 0.015 standard deviation for achievement and 1 percentage point for high school graduation and college enrollment. We also find little evidence that the effect of teacher evaluation reforms
varied by system design rigor, specific design features or student and district characteristics. We highlight five factors that may have undercut the efficacy of teacher evaluation reforms at scale: political opposition, the decentralized structure of U.S. public education, capacity constraints, limited generalizability, and the lack of increased teacher compensation to offset the non-pecuniary costs of lower job satisfaction and security.


This paper estimates the effect of a full year of the COVID-19 pandemic on school performance, focusing on students at the end of upper secondary school who are about to enter the labour market or start university without having had the opportunity to recover. Using longitudinal data from standardised tests for the student population nationwide, we use difference-in-differences models to analyse the performance of two cohorts of students in Italy: a cohort that has never been exposed to the pandemic and a cohort that graduated in 2021. We find that the pandemic had a huge negative impact on students’ performance in mathematics and reading (approximately 0.4 s.d. in both domains). Low-achieving pupils suffered the most, increasing the gap between strong and poor performers. The relative position of girls improved compared to boys. Different from the findings from the existing literature, inequalities by parental education remained largely unchanged.


In Germany, the final grade of a doctorate is significant for careers inside and outside the academic labor market. Particularly important is the highest grade—summa cum laude. At the same time, doctoral grades are constantly subject to criticism. Thus far, however, neither German nor international studies have examined the determinants of doctoral grades. Drawing on Hu’s model of college grades, this study develops a conceptual framework for explaining doctoral grades and investigates the impact of doctorate holders’, reviewers’, and environmental context characteristics on the probability of doctoral candidates graduating with the highest grade, summa cum laude. Using logistic regression analyses on data from the German PhD Panel Study, the study confirms that high-performing individuals are more likely to achieve the highest doctoral grade. A learning environment that is characterized by supervision security, high expectations to participate in scientific discourse, and strong support in network integration also increases the chances of graduating with a summa cum laude degree. In contrast, being female, having a highly respected reviewer, studying natural sciences, medical studies or engineering, completing an external doctorate, and studying within a learning environment characterized by rigid time constraints are negatively related to the probability of receiving a summa cum laude grade. This study is the first to lend empirical evidence to the critical discussion of doctoral grades and offers insights to ensure the validity of doctoral grades.

High rates of school dropout and overeducation are typical problems faced by developing economies. This paper addresses these issues in a unique theoretical model that accounts for complementarity between household and infrastructural investment in education production function on the one hand, and school and higher education on the other hand. The results derived in this paper show that a reallocation of the education budget in favor of school education can solve both problems at the same time if certain conditions are satisfied. Otherwise, reallocation aggravates the problems. This paper questions the efficacy of the widely practiced budget reallocation policy in favor of school education, and in turn, shows that reallocation cannot eliminate school dropouts.


This longitudinal study retrospectively explored the stigmatization experienced by 47 young adults in South Korea in early mid-20s who dropped out of middle or high school. Data were collected at two time points. Using thematic analysis, we categorized their experience of stigma into public and self-stigma, based on Corrigan and Kosyluk's (2014) social cognitive model of stigma. Each form of stigma is further subdivided into stereotypes, prejudices, and discrimination. We identified additional factors related to coping with the stigma. Based on the findings, the potential implications of characterizing the stigma experienced by middle and high school dropouts are discussed from a longitudinal perspective.


This study estimates the average multivalued treatment effects (ATET), of preschool attendance measured in years, on students’ international reading, math and science test z-scores in Grade 4. The causal treatment effects come from multiple-years observational data on three levels of preschool duration before entering Grade 1. Among European countries that participated in five international education surveys, PIRLS (2006, 2011, 2016) and TIMSS (2015, 2019), those renowned for having adopted early childhood education (ECE) programs starting at a young age, growing in intensity and improving the number of qualified child-care providers were selected. In addition to four Nordic countries (Denmark, Finland, Norway, Sweden), France, two Belgium jurisdictions (French, Flemish), and two participating Canadian provinces, Ontario and QuÃ©bec, were retained. The approach exploits the repeated surveys and cross-national comparative international z-scores tests. The data sets besides their test scores provide unique information from a parent questionnaire on their education and occupation levels, literacy and numeracy preschool activities, on child preschool educational childcare span in years and two program types (for some years; before and after age 3). Four key findings can be identified from the data sets and estimations. First, there are large differences in the average scale score and percentiles deviation when converted into the z-score metric, for all categories of test scores across jurisdiction participants, and
over time. Second, the estimates of the preschool treatment effects display rather heterogeneous impacts on $z$-scores with increasing significant and positive achievements over year surveys. Third, in general, preschool treatment effects are scattered in function of duration, programs types, and parental education. Four, results highlight stark gaps in scores related to parental education, socioeconomic statuses, and home learning resources for all year-samples. Evidence from a diversity of estimated gradients suggests established social inequalities in education achievement at ages 9-10 in Grade 4 could be difficult to reverse, even in cases where preschool education and care are implemented at a very young age in rich countries with very generous family policies.


The self-system model of motivational development was used in this study to examine whether and how student motivation and self-assessment practices—as psychological and behavioural mechanisms, respectively—link need-supportive teaching to students' objective achievement scores in English language learning. We applied a multilevel mediation analysis on Rasch-calibrated data from 796 students (53% females; mean age = 14.12, SD = 1.51) nested within 30 classes (mean class size = 26.53) in a secondary school in the Philippines. We collected all predictor variables (i.e. need-supportive teaching, motivation, self-assessment practice) in time 1, while achievement scores were collected eight weeks later (time 2). Lower-level mediation results show that students' perceptions of involved teaching and structured teaching are associated with higher controlled motivation and autonomous motivation. Furthermore, only autonomous motivation was associated with higher achievement in time 2. Self-assessment practice significantly mediated the link between both controlled and autonomous motivation to achievement. These results held while controlling for age, gender, and socioeconomic status. Hence, involved teaching and structured teaching correlated with higher motivation and increased self-assessment practice, which, in turn, leads to higher achievement in English language learning. The findings highlight that motivation and self-assessment practices are psychological and behavioural pathways that can theoretically and empirically explain how need-supportive teaching practices impact student achievement in a specific subject. Implications and directions for future research are discussed.


Describes the paths to the Ph.D. and the subsequent careers of the first 15 women to earn Ph.D.s from the University of California. It covers: Milicent Washburn Shinn (1898), Jessica Blanche Peixotto (1900), Alice Robertson (1902), Edna Earl Watson Bailey (1910), Annie Dale Biddle Andrews (1911), Myrtle Elizabeth Johnson (1912), Lillian Ruth Matthews (1912), Emma Phoebe Waterman Haas (1913), Anna Estelle Glancy (1913), Frances Lytle Gillepsy (1914), Rosalind Wulzen (1914), Olga Louise Bridgman (1915), Helen Margaret Gillkey (1915), Olive Swezy (1915), Irene Agnes McCulloch (1916).

Since 2004, many researchers have considered that grade skipping has a positive impact on academic achievement and is not detrimental to psychosocial development. However, some recent works have called this evidence into question. Therefore, this literature review aims to verify the consistency and robustness of historical and recent results. This review concludes that: (a) on a global level, recent results are more robust (confounding factors are better controlled) and confirm previous results, but many other controls of confounding factors would need to be made; and (b) professionals may continue to recommend grade skipping, but they must remain cautious. Finally, it is still premature to argue that grade skipping has a definite positive impact, even if the results are encouraging and may at least invite teachers to consider grade skipping as a possible solution.

Perret, C., & Villeneuve, E. (2023). *Accompagnement de l’évaluation d’un programme d’aide à la réussite étudiante par un comité scientifique et d’évaluation.* Consulté à l’adresse [https://hal.science/hal-04067335/document](https://hal.science/hal-04067335/document)

Cette contribution présente comment une instance d’évaluation d’un programme d’aide à la réussite étudiante s’est construite durant quatre ans. Il retrace le cas du comité scientifique et d’évaluation d’un projet pédagogique pluri-établissements démarré en 2018 dans le cadre du programme NCU-ANR-PIA d’une durée de 10 ans. Elle raconte les différents pas de la mise en place d’une évaluation instituée structurée par les statuts de ses membres, par l’adhésion à des principes sous-jacents inspirés de Thélot (2008) et inspirée par la recherche en évaluation et pas seulement par les demandes et évaluations spontanées. Elle précise les modalités de construction du jugement de l’évaluation par cette instance qui au croisement de l’évaluation externe et interne accompagne les acteurs pour le pilotage du projet et de ses différentes actions. A travers ce récit de pratique, nous proposons une analyse critique de la mise en place d’un tel comité, interrogeant les postures à adopter dans cette démarche d’évaluation ainsi que les dynamiques permettant sa bonne mise en œuvre.


What explains rural-urban learning inequalities is still under debate. This study investigates factors that account for learning inequalities in Benin, Burkina Faso, Togo, and Cameroon and then explores patterns of similarities across the four countries. It employs the Program for the Analysis of CONFEMEN Education Systems (PASEC) data which it analyzes using recentered influence function decomposition. Findings suggest that for all countries, tangible and intangible factors explain between 51.10% and 48.9% of the learning inequality at the mean, respectively. The decomposition across the distribution reveals that tangible factors explain between 41.50% and 65.3% of the learning inequality, which implies that intangible factors explain between 34.7% and 58.5% of the disparity. The cross-country analysis at the mean reveals that tangible factors explain between 45.60% and 69.1% of the rural-urban learning gap and intangible ones between 30.9% and 54.4%. Across the distribution, tangible factors account for the gap between 17% and 96.40% and intangible ones between 3.6% and 83%. Across the countries investigated, the gap
is explained more by school-related factors. Implications of the findings are discussed in the article.


When students are aware of the exam grades of their peers, does this information affect their subsequent exam performance? For example, knowing that my friend scored a higher grade on Exam 1 than myself might motivate me to improve my performance on Exam 2, or might frustrate me such that I stop trying to catch up. We analyze whether students’ performance is shaped by the grades of their classmates. To answer this question, we use survey-based data on students’ connections to other students with the grades that students obtained in a class. We find that a peer effect on grades does exist, where students who know that the grades of their friends were higher than their own on the first exam are motivated to improve their score on the following exam.


We tested the relationship between gender-stereotypical beliefs (GSBs) of female and male classroom peers and female achievement in mathematics. Complete-class student survey data merged with family register data from 1,047 Danish 6th-grade students, nested in 50 classrooms within 28 schools, were analysed using multilevel linear regressions including controls for parental education and income, the percentage of females in the classroom, prior math test scores, and the parental education, income, and prior test scores of female and male peers. We found that the GSBs of female peers were negatively associated with girls’ math achievement. Similar variables were not related to the math achievement of boys.


In recent decades, female students have been more successful in higher education than their male counterparts in the United States and other industrialized countries. A promising explanation for this gender gap are differences in personality, particularly higher levels of conscientiousness among women. Using Structural Equation Modeling on data from 4719 Dutch university students, this study examined to what extent conscientiousness can account for the gender gap in achievement. We also examined whether the role of conscientiousness in accounting for the gender gap differed for students with a non-dominant ethnic background compared to students with a dominant ethnic background. In line with our expectations, we found that conscientiousness fully mediated the gender gap in achievement, even when controlling for prior achievement in high school. This was the case among both groups of students. These findings provide insight into the mechanisms underlying the gender gap in achievement in postsecondary education settings. The current study suggests that the use of conscientiousness measures in university admission procedures may disadvantage male students. Instead, the use of such measures may be a fruitful way to identify those students who may benefit from interventions to improve their conscientiousness. Future research could examine how conscientiousness can be fostered among students who are low in conscientiousness.

The major objectives of our study were (a) to identify student profiles according to five homework characteristics (homework time, frequency, quality, interest, and favorability) and (b) to examine their relationship with three critical variables in the homework process—homework effort, completion, and math achievement. Latent profile analysis (LPA) was used to examine a data set with 3018 8th graders in China. Based on these characteristics, five distinct profiles were identified: Profile 1 (Low), Profile 2 (Moderate Time/High With Others), Profile 3 (Low Frequency/Moderate With Others), Profile 4 (Moderate Time/High Frequency/Low With Others), and Profile 5 (High Time and Frequency/Moderate With Others). Parent education was positively associated with the two healthiest profiles (Profile 2 and Profile 5). Finally, profile membership was a significant predictor of homework effort, completion, and math achievement. Specifically, our study suggests that students can work about 30 min on math homework and achieve the same results, if they work often, with high quality, fueled by interest and favorability (compared with students who spend about 110 min on math homework). Taken together, our study provided novel insights into the combination of homework characteristics that could have significant implications for homework practice and research.


This study used large-scale regional monitoring data of eighth-grade mathematics students at the compulsory education stage from various areas of mainland China. It extracted a total of 156,661 students and 4,676 junior high school mathematics teachers from 146 districts and counties located in six regions (provinces or cities). The study analysed academic achievement in mathematics in these areas and established a hierarchical linear model to explore the factors affecting academic achievement at different levels. The results are as follows: (1) approximately 94% of eighth-grade students reached the level C academic benchmark - students in East China had the highest compliance rate with this level, followed by those in North, South, and Central China; (2) girls, non-leftover students, and children without siblings performed better, and urban students performed significantly better than county and rural students; (3) approximately 34% of students' mathematics academic performance came from inter-school variability - regional background had a greater impact on mathematics than did teaching factors, while urban and rural background had the least impact. In contrast, the influence of individual characteristic variables was higher than that of student background variables, including a greater positive effect of self-efficacy and a greater negative effect of mathematics anxiety.

Helping students to become more resilient to online misinformation is widely recognised as an essential task for education in a rapidly digitalising world. Students need both scientific knowledge and epistemic insight to navigate online spaces containing sensationalised reports of scientific and technological developments. Epistemic insight involves epistemic curiosity and the ability to think critically about the nature, application and communication of knowledge. This includes developing an understanding of the power and limitations of science and a curiosity regarding its relationship with other disciplines. We present a workshop designed for school students aged 16–18 titled ‘Can science and technology cure loneliness?’, designed to develop students’ epistemic insight through investigating loneliness through a multidisciplinary perspective. We discuss how the design and pedagogy of this workshop might help students to build epistemic humility—the recognition that no single disciplinary perspective can complete our knowledge about a given topic. As part of a broader programme, epistemic insight-based pedagogies have the potential to develop students’ resistance to science- and technology-related misinformation and prepare them for their potential role in shaping our scientific and technological future.


Depuis quelques années, des voix s’élèvent pour faire évoluer les enseignements et les formations en vue de mieux prendre en compte les enjeux du changement climatique, à l’Université, comme dans les...


Teacher education is increasingly seen as of determining importance to the learning for sustainability agenda. Political momentum, support and funding are critical to advance teacher professional learning in this area. To be effective, teacher professional development must be seen alongside, and not in isolation to, other reforms and policies related to sustainability and education for sustainable development (ESD). At EU level, supporting measures are needed to accelerate current interest in learning for sustainability and to identify, share and scale exemplary national/regional policies on teacher education. To help countries turn commitments into action (‘walk the talk’) funding at national and EU level is crucial. Tapping into funding opportunities which have the potential to support large-scale reform (e.g. the EU’s European Social Fund and the Recovery and Resilience Fund) could be a game changer for learning for sustainability. This requires better visibility of existing funding at EU level as well as cross-government/inter-ministerial cooperation at national level to ensure learning for sustainability, including teacher education, is given the focus it urgently needs.

En mai 2022, les lycéens du parcours de spécialité de sciences économiques et sociales (SES) ont pu plancher sur le sujet suivant pour obtenir leur baccalauréat : « À partir d’un exemple, vous montrerez que l’innovation peut aider à reculer les limites écologiques de la croissance. » Visiblement, les auteurs de ce sujet d’examen comme des programmes de SES n’ont pas été informés qu’il existe, depuis des décennies maintenant, un consensus scientifique international et pluridisciplinaire sur les questions bioclimatiques. Si les activités humaines continuent de forcer les grands processus écologiques qui régissent le système Terre, nous aurons affaire à des ruptures brusques et irréversibles compromettant la vie humaine en société. Les limites écologiques sont largement franchies ; elles ne sont pas reculables d’un point de vue biogéophysique – seule la religion capitaliste de la croissance peut faire accroire de telles fables. Comment l’école républicaine peut-elle encore prétendre à une visée émancipatrice en étant enlisée dans un tel obscurantisme ? Pire encore : l’école, qui survalorise une raison instrumentale, est-elle responsable de l’avènement de l’Anthropocène – cette nouvelle époque géologique caractérisée par une modification durable des conditions d’habitabilité de la Terre ? Fondamentalement, quelle est la finalité de l’éducation : est-ce d’adapter les jeunes au monde tel qu’il va ou de travailler à la transformation radicale (du latin radix signifiant racine) de nos sociétés ? Aujourd’hui, selon la formule économique qui s’est imposée, nous avons l’impression que la finalité de l’éducation est de permettre à chacun de capitaliser son portefeuille de compétences... Renaud Hétier et Nathanaël Wallenhorst poursuivent leur travail d’analyse biogéophysique et sociopolitique de l’Anthropocène pour tracer ici le chemin de la refondation d’une éducation politique confrontée au plus grand défi du temps présent, la disparition progressive de nos conditions bioclimatiques d’existence.


Alors que les gouvernements tentent de réformer les systèmes éducatifs face à un avenir de plus en plus incertain, il est désormais urgent de définir la façon dont ils pourraient davantage maximiser les co-bénéfices des efforts visant à renforcer la résilience au changement climatique, à promouvoir la viabilité environnementale et à assurer une éducation de qualité pour tous. Le document propose un cadre à sept dimensions pour exploiter les points d’entrée potentiels et combler les lacunes des systèmes éducatifs en matière de : données, politique et planification, coordination, financement, infrastructures, enseignement et apprentissage, écoles et communautés.


The present paper argues that as basic schools become more pluralistic, it is important to (re)discuss the value base on which education should be built. Many see human rights as a universal principle of Western democratic societies and thus a universal value base of education. However, human rights seem to be insufficient – first, because many question their universality, and second, because they are understood mainly as legal rather than ethical principles. The concept that is known to ethically support human rights is the global ethic. And from one of the main pillars of the global ethic we derive the universal value base of education – the responsibility for the other, understood as care for the other, being for the other, treating and approaching the other with respect. To this end, teachers should encourage social interactions, based on active listening and exotopy.


The advancement of artificial intelligence in education (AIED) has the potential to transform the educational landscape and influence the role of all involved stakeholders. In recent years, the applications of AIED have been gradually adopted to progress our understanding of students’ learning and enhance learning performance and experience. However, the adoption of AIED has led to increasing ethical risks and concerns regarding several aspects such as personal data and learner autonomy. Despite the recent announcement of guidelines for ethical and trustworthy AIED, the debate revolves around the key principles underpinning ethical AIED. This paper aims to explore whether there is a global consensus on ethical AIED by mapping and analyzing international organizations’ current policies and guidelines. In this paper, we first introduce the opportunities offered by AI in education and potential ethical issues. Then, thematic analysis was conducted to conceptualize and establish a set of ethical principles by examining and synthesizing relevant ethical policies and guidelines for AIED. We discuss each principle and associated implications for relevant educational stakeholders, including students, teachers, technology developers, policymakers, and institutional decision-makers. The proposed set of ethical principles is expected to serve as a framework to inform and guide educational stakeholders in the development and deployment of ethical and trustworthy AIED as well as catalyze future development of related impact studies in the field.


This study explores a group of social studies teachers’ conceptions of citizenship by taking into consideration the country’s increasingly authoritarian political culture. It offers an analysis of semi-structured interviews carried out with 20 teachers working at state middle schools in a relatively secular city. The study found that the majority of the teachers are subscribed to a non-democratic conception of citizenship that prioritizes an uncritical loyalty to the nation, inculcates passive compliance, relies on a pro-Muslim notion of human rights, and makes little room for political issues discussion. Despite that, some teachers seem to develop oppositional discourses and seek ways to claim their agencies. The study concludes that the authoritarian Islamic nationalism in power has intensified the ethno-religiously nationalist, statist, and duty-centric aspects of citizenship education (CE). Some teachers’ explicit emphasis on pro-Islamic and anti-western discourses and
almost all teachers’ explicit concern to stay away from politics emerge as novel characteristics that are consistent with the dictates of Turkey’s authoritarian regime. It seems authoritarian populist nationalism redresses citizenship as an exclusionary notion grounded in race, ethnicity, religion, and civilizational claims. Insights from this research may help the advocates keep CE supportive of democratic values under authoritarian conditions.


The pervasive use of the Internet and technology has its impact on citizens’ civic participation. There are growing numbers of research which explore digital citizenship (DC) for citizens’ better civic participation in the information society. With the growing attention of digital citizenship, a systematic review of empirical research focused on digital citizenship in the past decade (2010–2020) was conducted to serve the need of different stakeholders. Synthesis was based on research purposes, methods, population, geographic distribution, instruments and factors that affect digital citizenship. Results showed that the research of the DC empirical studies varied. The themes of DC practice, education and factors attracted attention. A few reliable and valid instruments have been developed to measure digital citizenship targeted for different populations. Demographic factors, Internet use factors, psychological factors and social factors of an individual predict one’s digital citizenship. These factors may serve as indicators for policy makers to draft DC policy and educators to plan for the DC program in the society. Suggestions are provided for practitioners based on the findings.