Sommaire :

Acquisition de compétences .......................................................... 2
Aspects économiques de l’éducation ............................................. 8
Aspects psychologiques de l’éducation ....................................... 21
Aspects sociaux de l’éducation .................................................... 40
Climat de l’école .......................................................................... 64
Évaluation des dispositifs d’éducation-formation ....................... 65
Marché du travail ......................................................................... 69
Métiers de l’éducation .................................................................. 73
Numérique et éducation ............................................................... 91
Orientation scolaire et professionnelle .................................... 132
Politique de l’éducation et système éducatif ......................... 137
Pratiques enseignantes ............................................................... 158
Relation formation-emploi .......................................................... 191
Réussite scolaire .......................................................................... 191
Valeurs .......................................................................................... 199

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

The paper presents the results of an exploratory research on parental practices and attitudes in three peripheral archipelagos of French Polynesia: the Marquesas, the Australs, and the Tuamotus Islands. Its aim was to identify parenting typologies in isolated contexts using the Parenting Skills Evaluation Scale (Échelle des Compétences Éducatives Parentales, ECEP) with 120 parents living in remote islands. The data analysis indicates that families living in such isolated contexts are in a rather vulnerable situation in relation to schooling. Parental attitude is in most cases normative, attributing a significant importance to school success, but domestic practices appear mostly liberal, characterized by unsupervised autonomy combined with moments of strictness, as observed in other postcolonial and marginalized contexts. Finally, the article discusses the efficacy of the ECEP as a valid measurement tool in family studies, confirming its effectiveness.


Dans son rapport « L’Europe de l’éducation en chiffres » sorti en décembre dernier, la DEPP fait le bilan de la stratégie commune d’éducation de l’UE des 27 qui se fixait sept objectifs à l’horizon 2030, « des objectifs qui doivent être considérés comme des niveaux de référence des performances moyennes européennes ». Si la France se démarque par...


The three chapters of this thesis study different aspects of skills and human capital across different contexts. The first chapter investigates the question: what drives some young people to choose to attend university while others do not? This chapter focuses on non-pecuniary factors: using detailed survey data from UK cohort studies I compare the expectations of young people who both attend and do not attend university about many different aspects of life at, and after, university. Non-pecuniary, and particularly non-financial, factors are shown to be much more important than wages in determining the higher education choices of young people. The second chapter moves the focus of the analysis from expected returns from before attending university, to realised returns after university - from ex ante to ex post. Using the same cohort studies as in chapter 1, I study the wage returns to a university degree in the UK as a function of ability on entry to university. I develop a methodology that allows the estimation of both cognitive and non-cognitive prior abilities. I use these estimates to study how the returns to university vary across groups of individuals with different prior ability levels, allowing for interactions between the different components of ability. In chapter 3 the focus switches from higher education to formal training. Using a novel methodology in the spirit of diff-in-diff, we exploit novel French data on training to estimate the wage returns to formal training. We find small estimates in the range of 1-3%, suggesting the larger estimates found in earlier studies may have failed to fully account for unobserved heterogeneity.

Learning goals and objectives are a key part of instruction, informing curricular design, assessment, and learning. These goals and objectives are also applied at the programmatic level, with program learning outcomes (PLOs) providing insight into the skills that undergraduate biology programs intend for their students to master. PLOs are mandated by all major higher education accreditation agencies and play integral roles in programmatic assessment. Despite their importance, however, there have not been any prior attempts to characterize PLOs across undergraduate biology programs in the United States. Our study reveals that many programs may not be using PLOs to communicate learning goals with students. We also identify key themes across these PLOs and differences in skills listed between institution types. For example, some Vision & Change core competencies (e.g., interdisciplinary nature of science; connecting science to society; quantitative reasoning) are highlighted by a low percentage of programs, while others are shared more frequently between programs. Similarly, we find that biology programs at 4-year institutions likely emphasize PLOs relating to computational skills and research more than at 2-year institutions. We conclude by discussing implications for how to best use PLOs to support student learning, assessment, and curricular improvements.


This briefing reports on recent developments affecting Europe’s recognition regimes – both professional and academic. At the start of 2023, the European Year of Skills, the author looks at the context facing higher education stakeholders across four areas: the European labour market, Ukraine, developments in the higher education sector and the legacy of Brexit. In the professional disciplines numerous challenges have already impacted on curriculum design and programme delivery. Triggering the revision of regulatory practice and EU legislation will take much longer, despite the urgent need for progress in sectors such as healthcare.


The role of soft skills at school is still debated, but they have emerged as important factors for students’ academic achievement and life satisfaction. This study focuses on the combined influence of soft skills (in terms of adaptability, curiosity, leadership, initiative, perseverance, and social awareness), extracurricular activities, achievement emotions, self-regulated learning, motivation, and cognitive abilities on academic achievement and life satisfaction. A sample of 603 students (5th to 12th graders) participated in the study. The results of a Bayesian path analysis based on meta-analytical priors show that soft skills were (i) directly positively associated with students’ achievement emotions, self-
regulated learning, motivation, and life satisfaction and (ii) indirectly related with academic achievement through the mediation of self-regulated learning and motivation. On the other hand, only soft skills and achievement emotions were directly related to life satisfaction. Extracurricular activities showed a positive association with both soft skills and cognitive abilities. These results are the first to demonstrate the importance of soft skills and extracurricular activities when integrating all the above-mentioned factors in a model of students’ academic achievement and life satisfaction.


While there is a large body of literature on the benefits of open innovation, little is known about the knowledge flows and the interrelationship of the purposeful and serendipitous spillover of knowledge flows that deliver value from international open innovation (IOI) collaborations. This study examines these knowledge flows occurring from IOI and the extent to which the entrepreneurial ecosystem (EE) context, knowledge management (KM) capabilities of the firm, and knowledge spillovers (KS), nurture IOI engagement. A quantitative study is adopted where data on 98,809 firms from 15 European Union countries to empirically tested a proposed model through multiple linear regressions of logit models. The results highlight the positive effect of KS on IOI engagement, and the positive mediating effect of KM capability on the relationship between KS and IOI. Additionally, the results show a positive moderating effect of the EE on the relationship between the firm’s KM capability and IOI engagement. Additionally, the findings emphasize the beneficial nature of the EE on nurturing KM capabilities within firms located in the ecosystem and its impact on nurturing KS within the network.


We developed labs on the evolution of antibiotic resistance to assess the costs and benefits of replacing traditional laboratory exercises in an introductory biology course for majors with a course-based undergraduate research experience (CURE). To assess whether participating in the CURE imposed a cost in terms of exam performance, we implemented a quasi-experiment in which four lab sections in the same term of the same course did the CURE labs, while all other students did traditional labs. To assess whether participating in the CURE impacted other aspects of student learning, we implemented a second quasi-experiment in which all students either did traditional labs over a two-quarter sequence or did CURE labs over a two-quarter sequence. Data from the first experiment showed minimal impact on CURE students’ exam scores, while data from the second experiment showed that CURE students demonstrated a better understanding of the culture of scientific research and a more expert-like understanding of evolution by natural selection. We did not find disproportionate costs or benefits for CURE students from groups that are minoritized in science, technology, engineering, and mathematics.

The purpose of this research is to study the effectiveness of using the specialized interactive environment Revit Architecture for creativity development. The study methodology relies on an empirical approach, including a sample of students from three Chinese colleges (n = 319) divided into two groups based on learning approach. Accordingly, the first group consisted of students who practiced their design skills under the conventional program (Group A) and the second group included students who additionally used Revit Architecture for their practice (Group B). The Torrance Tests of Creative Thinking (TTCT) facilitated the identification of the creative thinking development level among participants. The present paper also seeks to determine if there is a connection between creative thinking and design training program effectiveness in architecture education (null hypothesis). According to the final assessment results, Group B performed better than Group A; the difference in the average performance score was 10.9% between the two groups. As a result, it proves that interactive learning environments have a positive impact on the level of creativity skills development. Consequently, this study proves that using interactive learning environments in architectural design education contributes to better learning outcomes.


Systematic evidence reviews draw together findings from multiple studies, helping researchers and decision makers to understand patterns of research and findings across varying contexts and research methodologies. They have become more popular over the last twenty years, with various guides discussing the different ways in which they can be conducted and the issues arising in this process. This case study of a systematic review of the factors shaping children’s digital skills explores the challenges, risks and potential strategies in this process, as those involved in that review reflect upon the various judgements involved in choosing inclusion criteria, filtering and coding studies and synthesising the material collected.


SELFIE (Self-reflection on effective learning by fostering innovation through educational technologies) est un outil européen gratuit, destiné à aider les établissements d’enseignement à intégrer les technologies numériques dans leurs méthodes d’enseignement, d’apprentissage et d’évaluation. Ses questionnaires interrogent les chefs d’établissement, les enseignants et les élèves sur l’utilisation des technologies numériques. Les compétences numériques des élèves varient -elles davantage au niveau national, régional, local ou au niveau individuel ? Quels sont les facteurs associés aux différences de compétences à chaque niveau ? Ce document de recherche montre que les compétences numériques des élèves ont associées aux les infrastructures numériques, à la pédagogie et aux évaluations. Les variations liées aux enseignants sont pour la plupart insignifiantes et les différences entre les pays ne sont pas importantes. C’est au niveau individuel que les différences sont les plus importantes.

This study aims at describing differences in internal and external resources of students to handle mathematics learning from home. Based on data from N = 223 7th-grade secondary school students gathered via an online survey at the end of the first school year during the COVID-19 pandemic, we used latent profile analysis to identify student profiles defined by the internal factors perceived value and success of students’ math learning from home and the external factors family support and teacher support—all specifically related to home learning. A number of general learning conditions, comprising internal (e.g., sustained attention) and external factors (e.g., socioeconomic status), are included as outcome variables. The best-fitting four-profile solution suggests one profile with comparably unfavorable internal and external resources. About 35% of the students are assigned to that profile. The other three profiles show combinations of, relative to the sample, more and less promising specific home learning and general learning conditions suggesting that these students have different resources available in the face of learning mathematics from home.


This investigation studied the effects of the Multiple Literacies in Project-Based Learning science intervention on third graders’ academic, social, and emotional learning. This intervention includes four science units and materials, professional learning, and post-unit assessments; features of project-based learning; three-dimensional learning (National Research Council, 2012); and the performance expectations from the Next Generation of Science Standards (NGSS Lead States, 2013). The intervention was evaluated with a cluster randomized control trial in 46 Michigan schools with 2,371 students. Results show that students who received the intervention had higher scores on a standardized science test (0.277 standard deviation) and reported higher levels of self-reflection and collaboration when involved in science activities.


Course-based undergraduate research experiences (CUREs) have the potential to impact student success and reduce barriers for students to participate in undergraduate research. Literature review has revealed that, while CUREs are being implemented at both community colleges (CCs) and bachelor’s degree–granting institutions, there are limited published studies on the differential impacts CUREs may have on CC students in allied health programs, career and technical education, and nursing pathways (termed “workforce” in this essay). This essay summarizes proposed outcomes of CURE instruction and explores possible reasons for limited reporting on outcomes for CC and workforce students. It also provides recommendations to guide action and effect change regarding CURE implementation and assessment at CCs. This essay is a call to action to expand the science, technology, engineering, and mathematics career development
pathway to include workforce students, implement CUREs designed for workforce students, and assess the differential impacts CUREs may have on workforce student populations at CCs.


Although the role played by finger use in children’s numerical development has been widely investigated, their benefit in arithmetical contexts is still debated today. This scoping review aimed to systematically identify and summarize all studies that have investigated the relation between fingers and arithmetic skills in children. An extensive search on Ovid PsycINFO and Ovid Eric was performed. The reference lists of included articles were also searched for relevant articles. Two reviewers engaged in study selection and data extraction independently, based on the eligibility criteria. Discrepancies were resolved through discussion. Of the 4707 identified studies, 68 met the inclusion criteria and 7 additional papers were added from the reference lists of included studies. A total of 75 studies were included in this review. They came from two main research areas and were conducted with different aims and methods. Studies published in the mathematical education field (n = 29) aimed to determine what finger strategies are used during development and how they support computation skills. Studies published in cognitive psychology and neuroscience (n = 45) specified the cognitive processes and neurobiological mechanisms underlying the fingers/arithmetic relation. Only one study combined issues raised in both research areas. More studies are needed to determine which finger strategy is the most effective, how finger sensorimotor skills mediate the finger strategies/arithmetic relation, and how they should be integrated into educational practice.


This paper formulates a simple skill and education model to explain how better access to higher education leads to stronger assortative mating on skills of parents and more polarized skill and earnings distributions of children. Swedish data show that in the second half of the 20th century more skilled students increasingly enrolled in college and ended up with more skilled partners and more skilled children. Exploiting college expansions, we find that better college access increases both skill sorting in couples and skill and earnings inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.


This paper formulates a simple skill and education model to explain how better access to higher education leads to stronger assortative mating on skills of parents and more polarized skill and earnings distributions of children. Swedish data show that in the second half of the 20th century more skilled students increasingly enrolled in college and ended up with more skilled partners and more skilled children. Exploiting college expansions, we find that better college access increases both skill sorting in couples and skill and earnings inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.
inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.

Philippon, A.-L. (2022). Évaluer les futurs médecins en situation simulée dans le contexte de l'urgence vitale: développement d'un outil et réflexions sur son apport dans le cadre d'une approche par compétence(s) (Phdthesis, Université de Strasbourg). Consulté à l'adresse https://theses.hal.science/tel-03965050

Les compétences en médecine d'urgence (MU) devraient pouvoir être évaluées chez les étudiants en médecine et les internes avec des outils valides. L’objectif était de développer des outils d’évaluation par la simulation, dans trois situations cliniques. Une recherche en trois phases a été menée: développement du contenu, évaluation du processus de réponse et des propriétés psychométriques, puis évaluation de leur utilisabilité et de leur acceptabilité auprès des enseignants. Trois scores ont été obtenus après consultation de 51 experts. Après analyse de 43 vidéos et de 104 simulations in-situ, impliquant 144 et 314 apprenants, la fiabilité des scores était bonne avec une reproductibilité excellente et une bonne cohérence. Les enseignants estimaient que les scores ACAT étaient utilisables, mais ont discuté les changements induits avec l’évaluation par la simulation. Trois scores d’évaluation valides et fiables ont pu être développés pour mesurer la performance des apprenants en MU. L’acceptabilité de l’évaluation par la simulation est questionnée et devrait être analysée dans l’optique de son déploiement pour des évaluations à enjeu élevé.


Analogical reasoning is an important type of cognition often used by experts across domains. Little research, however, has investigated how generating analogies can support college students’ self-regulated learning (SRL) of biology. This study therefore evaluated a contextualized cognitive learning strategy intervention designed to teach students to generate analogies as a learning strategy to aid learning within a university biology course. Participants (n = 179) were taught how to generate analogies as a learning strategy to learn about plant and animal physiology. We hypothesized the quality of students’ generated analogies would increase over time, and their analogical reasoning, knowledge of cognition (KOC; a component of metacognitive awareness), and course performance would be higher after intervention, controlling for associated pre-intervention values. Regression analyses and repeated-measures analysis of variance indicated a positive relationship between generated-analogy quality and analogical reasoning, and increased analogy quality after intervention. No change in reported KOC was observed, and analogy quality did not predict course performance. Findings extend understanding of strategies that can support college students’ biology learning. Researchers and practitioners can leverage our approach to teaching analogies in their own research and classrooms to support students’ SRL, analogical reasoning, and learning.

We evaluate the effects of an online self-assessment tool on teachers’ competencies and beliefs about ICT in education. The causal impact of the tool is evaluated through a randomized encouragement design, involving 7,391 lower secondary teachers across 11 European countries. Short-run impact estimates show that the use of the tool led teachers to critically revise their technology-enhanced teaching competencies (-0.14 standard deviations) and their beliefs about ICT in education (-0.35 s.d.), while there is no impact on their probability of taking specific training. The effects are concentrated among teachers in the top-end tail of the distribution of pre-treatment outcomes. We provide suggestive evidence that the feedback score provided by the tool triggered such results by providing a negative information shock.


This paper provides evidence from the US and Denmark that managers with a business degree (“business managers”) reduce their employees’ wages. Within five years of the appointment of a business manager, wages decline by 6% and the labor share by 5 percentage points in the US, and by 3% and 3 percentage points in Denmark. Firms appointing business managers are not on differential trends and do not enjoy higher output, investment, or employment growth thereafter. Using manager retirements and deaths and an IV strategy based on the diffusion of the practice of appointing business managers within industry, region and size quartile cells, we provide additional evidence that these are causal effects. We establish that the proximate cause of these (relative) wage effects are changes in rent-sharing practices following the appointment of business managers. Exploiting exogenous export demand shocks, we show that non-business managers share profits with their workers, whereas business managers do not. But consistent with our first set of results, these business managers show no greater ability to increase sales or profits in response to exporting opportunities. Finally, we use the influence of role models on college major choice to instrument for the decision to enroll in a business degree in Denmark and show that our estimates correspond to causal effects of practices and values acquired in business education—rather than the differential selection into business education of individuals unlikely to share rents with workers.


Many personal and policy decisions turn on perceptions of school effectiveness, defined here as the causal effect of attendance at a particular school or set of schools on student test scores and other outcomes. Widely-disseminated school ratings frameworks compare average student achievement across schools, but uncontrolled differences in means may owe more to selection bias than to causal effects. Such selection problems
have motivated a wave of econometric innovation that uses elements of random and quasi-experimental variation to measure school effectiveness. This chapter reviews these empirical strategies, highlighting solved problems and open questions. Empirical examples are used throughout.


We study whether the completion of an optional professional year placement during undergraduate studies enhances job quality, in terms of earnings, job security and career fit, for economics graduates from a UK university. Using linear and discrete choice models, we estimate the effect of doing a professional year placement on four graduate outcomes that capture job quality and use a rich data set to control for demographics, educational background, academic achievement, degree, and graduate job characteristics. To account for possible self-selection bias, we use propensity score matching. We find that graduates who did a professional year placement earn 6.5% higher salaries than non-placement graduates, but the salary gap becomes statistically insignificant once we control for self-selection. Similarly, a professional year placement has no effect on job security. However, we find a positive effect of professional year placement on career fit: placement graduates are more likely to find jobs that fit their career plans than non-placement graduates, which holds even after controlling for self-selection. The empirical findings also show that job characteristics, like location and type of industry, and school background are also important factors contributing to graduates' employment quality. Finally, we find no differences in job quality due to gender.


Building on cross-sectional data for Austrian high school students from fifth to twelfth grade, we investigate the correlations between socio-economic background variables and a comprehensive set of variables related to financial decision-making (i.e., financial knowledge, behavioral consistency, economic preferences, field behavior, and perception of financial matters). We confirm the findings of previous literature that the male gender is positively associated with financial knowledge and risk-taking and that there is a strong and beneficial correlation between math grades and healthy financial behavior (e.g., saving). Moreover, we find that students' behavioral consistency is positively correlated with measures of financial attitude (e.g., self-assessed future financial well-being and financial education received from parents). Finally, our results indicate that financial education, as perceived by the students, is primarily provided by parents.


We consider priority-based school choice problems with farsighted students. We show that a singleton set consisting of the matching obtained from the Top Trading Cycles (TTC) mechanism is a farsighted stable set. However, the matching obtained from the
Deferred Acceptance (DA) mechanism may not belong to any farsighted stable set. Hence, the TTC mechanism provides an assignment that is not only Pareto efficient but also farsightedly stable. Moreover, looking forward three steps ahead is already sufficient for stabilizing the matching obtained from the TTC.


Over the last two decades, undergraduate university education in England moved from being state-funded and free for students, to costing all students substantial amounts in tuition fees. In this paper, using detailed administrative longitudinal microdata that follow all students attending state schools in England (approximately 95% of student population), we causally show that, despite the substantial reforms, enrollment fell only by 0.5 percentage points, where the effect is largely borne by those in wealthier groups, reducing the enrolment gap across socio-economic groups. Since tuition fees were introduced in conjunction with the government offering generous means-tested maintenance (cash) grants, as well as loans, our results highlight the importance of reducing financing constraints. Beyond enrollment, we find that the reforms have limited impact on students’ higher education choices, such as relocation decisions, university choice, and field of study. Finally, by tracking the students after graduation, we show similarly small effects on labor market outcomes.


We investigate the impact of labour market concentration on two dimensions of job quality, namely wages and job security. We leverage rich administrative linked employer-employee data from Denmark, France, Germany, Italy, Portugal and Spain in the 2010s to provide the first comparable cross-country evidence in the literature. We show that the elasticities of wages with respect to labour market concentration are strikingly similar across countries. Increasing labour market concentration by 10% reduces wages by 0.19% in Germany, 0.22% in France, 0.25% in Portugal and 0.29% in Denmark. We find greater elasticities for job security. An increase in labour market concentration by 10% reduces the probability of being hired on a permanent contract by 0.46% in France, 0.51% in Germany and 2.34% in Portugal. In Italy and Spain, while not affecting this probability, labour market concentration has a strong negative effect on conversions to a permanent contract once hired on a temporary one. Using German and Portuguese data, we provide suggestive evidence that the similarity of our wage elasticities across countries and the greater sensitivity of job security to labour market concentration may be explained by the fact that sector-level collective bargaining is dominant in the countries we study and that it sets wages but usually not contract type.

We conducted an experiment in low-income schools in Chile to test the effects and behavioral changes triggered by a program that sends attendance, grade, and classroom behavior information to parents via weekly and monthly text messages. Our 18-month intervention raised average math GPA by 0.08 of a standard deviation and increased the share of students satisfying attendance requirements for grade promotion by 4.5 percentage points. Treatment effects were larger for students at higher risk of later grade retention and dropout. Leveraging existing school inputs for a light-touch, cost-effective, and scalable information intervention can improve education outcomes in lower-income settings.


Recent research documents a causal impact of place on the long-run outcomes of children. However, little is known about which neighborhood characteristics are most important, and at what scale neighborhood effects operate. By using the random assignment of public housing along with administrative data from Denmark, we get inside the “black box” of neighborhood effects by defining neighborhoods using various characteristics and scales. Results indicate effects on mental health and especially education are large but local, while effects on drug possession operate on a much broader scale. Additionally, unemployment and education are better predictors of outcomes than neighborhood income.


This chapter provides new evidence on educational inequality and reviews the literature on the causes and consequences of unequal education. We document large achievement gaps between children from different socioeconomic backgrounds, show how patterns of educational inequality vary across countries, time, and generations, and establish a link between educational inequality and social mobility. We interpret this evidence from the perspective of economic models of skill acquisition and investment in human capital. The models account for different channels underlying unequal education and highlight how endogenous responses in parents’ and children’s educational investments generate a close link between economic inequality and educational inequality. Given concerns over the extended school closures during the COVID-19 pandemic, we also summarize early evidence on the impact of the pandemic on children’s education and on possible long-run repercussions for educational inequality.


This paper provides representative evidence on the perceived returns to maternal labor supply. We design a novel survey to elicit subjective expectations, and show that a mother’s decision to work is perceived to have sizable impacts on child skills, family outcomes, and the future labor market outcomes of the mother. Examining the channels through which the impacts are perceived to operate, we document that beliefs about
the impact of additional household income can account for some, but not all, of the perceived positive effects. Beliefs about returns substantially vary across the population and are predictive of labor supply intentions under different policy scenarios related to childcare availability and quality, two factors that are also perceived as important. Consistent with socialization playing a role in the formation of beliefs, we show that respondents whose own mother worked perceive the returns to maternal labor supply as higher.


This study examines the gendered effects of early and sustained exposure to high-performing peers on female educational trajectories. Exploiting random allocation to classrooms within middle schools, we measure the effect of male and female high performers on girls' high school placement outcomes. We disentangle two channels through which peers of either sex can play a role: academic performance and school preferences. We also focus on the effects of peers along the distribution of baseline academic performance. Exposure to good peers of either sex reduces the degree to which high-achieving girls seek placement in more-selective schools. High-achieving boys have particularly strong, negative effects on high-performing girls' admission scores and preferences for more-selective schools. By contrast, high-achieving girls improve low-performing girls' placement outcomes, but exclusively through a positive effect on exam scores.


In Fall 2014, Wellesley College began mandating pass/fail grading for courses taken by first-year, first-semester students, although instructors continued to record letter grades. We identify the causal effect of the policy on course choice and performance, using a regression-discontinuity-in-time design. Students shifted to lower-grading STEM courses in the first semester, but did not increase their engagement with STEM in later semesters. Letter grades of first-semester students declined by 0.13 grade points, or 23% of a standard deviation. We evaluate causal channels of the grade effect—including sorting into lower-grading STEM courses and declining instructional quality—and conclude that the effect is consistent with declining student effort.


The three chapters of this thesis study different aspects of skills and human capital across different contexts. The first chapter investigates the question: what drives some young people to choose to attend university while others do not? This chapter focuses on non-pecuniary factors: using detailed survey data from UK cohort studies I compare the expectations of young people who both attend and do not attend university about many different aspects of life at, and after, university. Non-pecuniary, and particularly non-financial, factors are shown to be much more important than wages in determining
the higher education choices of young people. The second chapter moves the focus of the analysis from expected returns from before attending university, to realised returns after university - from ex ante to ex post. Using the same cohort studies as in chapter 1, I study the wage returns to a university degree in the UK as a function of ability on entry to university. I develop a methodology that allows the estimation of both cognitive and non-cognitive prior abilities. I use these estimates to study how the returns to university vary across groups of individuals with different prior ability levels, allowing for interactions between the different components of ability. In chapter 3 the focus switches from higher education to formal training. Using a novel methodology in the spirit of diff-in-diff, we exploit novel French data on training to estimate the wage returns to formal training. We find small estimates in the range of 1-3%, suggesting the larger estimates found in earlier studies may have failed to fully account for unobserved heterogeneity.


This thesis' main objects of interest are the wage returns to education and experience on labor markets, and the earning inequalities these returns generate. It seeks to understand these returns from a matching perspective, by investigating determinants of relationship formation between workers and firms. The first chapter documents flattening wage returns to experience between higher education graduates entering the French labor market in 1998 and 2010. Differences in average wage growth are decomposed by occupation into an extensive and intensive margin. Two potential mechanisms behind the wage growth slow down are explored: access to managerial positions and impact of initial match quality. I find access to managerial positions is more infrequent for recent cohorts. I also find that initial match quality has not worsened between the 1998 and 2010 cohorts, but its impact on future wages has become more enduring. The second chapter studies the decrease in the education wage premium on the Portuguese labor market between 1987 and 2017. I build a model of one-to-many matching with multidimensional types in which several workers are employed by a single firm. I structurally estimate the model on matched employer-employee data. Counterfactual exercises suggest that both changes in worker preferences and the increasing relative productivity of high school graduates over non-graduates act as a mitigating force on the decreasing high school wage premium, but do not fully compensate for high school graduates’ rise in relative supply. In the third chapter, co-authored with Jeremy Fox and Alfred Galichon, we explore how expectations on future returns influence matching decisions. We introduce a model of dynamic matching with transferable utility. We explore aggregate dynamics and show that a stationary equilibrium exists. We propose two algorithms to compute a stationary equilibrium and adapt both methods for estimation.


The transition from higher education to the labour market is considered an important and uncertain life stage wherein young adults exchange an academic environment for an often-chaotic entry into the labour market. Specifically, for graduates with a lower socioeconomic status (SES), this transition involves several difficulties. Investigating these persisting SES differences in the transition is becoming more relevant given the increasing participation of students from lower SES backgrounds in higher education. This systematic
review studies SES differences in the transition by looking through the lens of resource acquisition. The results demonstrate that graduates from lower SES backgrounds have more difficulty finding suitable employment and often experience lower job quality. Moreover, our findings show that the strong interdependence between the importance of different forms of capital and the (implicit) symbolic value attached to these capitals makes it difficult for graduates from lower SES backgrounds to overcome barriers in the transition.


The ambiguity in the relationship between self-employment and educational attainment is well documented in the literature. Using an extensive individual level dataset from Periodic Labor Force Survey, we estimate the probability of being self-employed in India based on educational attainments. Our results suggest that the probability of being self-employed rises for an individual with education but not monotonically so. Indeed, the impact of education on likelihood of self-employment does not convey much information without considering how the effect varies across gender, caste, age, household size, religion, and industry as various cohorts chosen for this study using 418,297 observations. The probability to be self-employed varies considerably based on gender, caste and age when the level of education rises. A cohort based analysis for determination of self-employment is novel for India along with the findings where college educated women show higher probability of self-employment than men, for example. The importance of considering the non-linearity in the relationship between self-employment and education, usually part of analytical frameworks but inadequately addressed empirically, should be useful for better policies on the interaction between human capital and occupational choice. Robustness analysis considering further cohort effects in terms of household size and religion, buttresses our benchmark results.


This article focuses on the impact of education as the most important human capital endowment in the context of migration, religion, gender and ethnic identity from a demographic perspective. It presents research-based evidence to address such key research questions as whether and how significantly women’s education provides equal benefit in the labour market for individuals, based on their migration status, religion, and ethnic identity. The field of this study is the multi-ethnic and multicultural context of Australia with a wide range of ethnic and religious groups of migrants from throughout the world. Preliminary results show that labour market achievement is positively and significantly associated with the educational attainment of individuals, irrespective of their migration status, religious affiliation and ethnicity. However, more comprehensive analysis from comparative perspectives reveals that the positive economic return of education is higher for natives (compared with migrants), for ethnic migrants from developed regions of origin (compared with those from less developed regions of origin) and for non-Muslims (compared with Muslims). The article provides two plausible explanations for these patterns. The first refers to the lack of recognition of overseas qualifications and to the devaluation of foreign education that particularly applies to ethnic migrants from less developed regions. The second relates to disadvantage
through structural discrimination against migrants, particularly when their cultural and religious identity, such as Islamic names and dress codes, are distinctively displayed. In sum, this analysis presents further research-based evidence to go beyond the human capital theory in order to explain more appropriately the economic return of women’s education in the context of religion and migration from a demographic perspective.


We use new administrative data that links detailed information on Canadian student loan recipients with their repayment and income histories from the Canada Student Loans Program (CSLP), income tax filings, and post-secondary schooling records to measure the extent to which student borrowers adjust loan repayments to insure against income variation. Several mechanisms are available for students to adjust loan repayments in response to income fluctuations: formal, like CSLP’s Repayment Assistance Plan; and informal, such as delinquency or default. Borrowers can also make larger payments than required should they experience unexpectedly high income. Indeed, loan payments are shown to increase in income, more so in early years and for individuals with higher initial debt. More formally, we estimate that on average, an unexpected $1,000 change in year-over-year income is associated with a $30 change in loan payment: from a $50 change the year after graduation, declining to a $20 change 5 years after graduation. Loan repayments are also used to absorb income variation that is more permanent in nature: for borrowers whose income is consistently below or above expected income at graduation, the magnitude of average repayment adjustment is similar to the average yearly response.


This paper investigates whether work experience gained through a subsidized job program can improve the employment prospects of young school dropouts. Relying on a correspondence study field experiment conducted in France, we find that the chances to be invited for a job interview are more than doubled (from 7.6 percent to 19.3 percent) when youths signal a one-year job-related experience in their résumé - either in the private or public sector; either certified or not - compared to youths who remained mainly inactive after dropping out from high school. We show that this effect is fairly stable across firm, contract or labor market characteristics, and also when testing another channel of application where resumes were sent spontaneously to firms.


We examined the effectiveness of nudge and boost in environmental education classes on students’™ attitudes toward environmental issues and energy-saving behaviors. We randomly assigned the target of this study, students in 8 primary schools and 6 junior high
schools, with four types of interventions: receiving only environmental education (the control group), education with either nudges (goal-setting of energy-saving actions) or boosts (playing a game with ‘the tragedy of the commons’ setting) only, and education with both nudges and boosts. We confirmed that students subject to boosts significantly became more environmentally conscious in the game and set more goals in the nudge task. The follow-up survey one month after the intervention revealed that students who set more targets in the nudge and boost group showed higher energy-saving awareness and environmental attitudes and took more energy-saving actions and reduced water consumption at home. We also found that even three months after the intervention, students who set more goals in the nudge and boost group were more energy conscious and implemented more energy-saving actions, and reduced water consumption at home.


The number of individuals with student loan debt who do not earn their degrees is on the rise; nevertheless, there is little research that demonstrates their current circumstances and future aspirations. We address this knowledge gap by comparing the financial distresses and re-enrollment aspirations of student debt-holders who started college but did not earn a degree—those with non-degreed debt (NDD)—to (a) individuals who have a high school diploma and no student debt, (b) individuals with some college and no student debt, and (c) individuals with a college degree and no student debt, and (d) individuals with a college degree and student debt. Through these “downwards,” “sideways,” and “upwards” comparisons, we are able to provide a 360 degree view of the unique circumstances and outlooks faced by individuals with non-degreed debt. We find that individuals with NDD had greater odds of experiencing material and healthcare hardships, as well as financial difficulties. Individuals with NDD also had greater levels of financial anxiety and lower levels of financial well-being. Despite these challenges, individuals with NDD were often more optimistic about their future college enrollments and earnings. We discuss the implications of these findings with regards to financial aid policies, debt repayment policies, and college retention and re-enrollment efforts.


Using longitudinal data from the Italian National Institute for the Evaluation of the Education System (INVALSI), this paper investigates whether the ability of classmates affects the educational attainment of immigrant students. We focus not only on the average quality of peers in the class, but we further investigate which part of the ability distribution of peers drives the effect, by assessing the role played by the extreme tails of the ability distribution. Our empirical strategy addresses students’ endogenous sorting into classes by exploiting the within-student across-subjects variation in achievements and the simultaneity problem by using predetermined measures of peers’ ability. We show that peers’ ability matters. While native students are mostly influenced by the average quality of their peers, immigrant children are detrimentally affected by the fraction of very low achievers in the classroom. Our findings provide valuable guidance.
to policymakers concerning the allocation of students to classes in order to foster immigrant students’ integration and learning.


In recent years, the Public Service Loan Forgiveness program has garnered more attention among student loan borrowers in the United States as a potential source of loan relief. However—at least prior to the PSLF Program Overhaul introduced in October 2021—arduous eligibility criteria, opaque communication on the part of the U.S. Department of Education and contracted loan servicers, and ongoing threats to the continuation of the program made for a skittish and frustrated group of enrollees. This article leverages a mixed methods study to explore the meaning borrowers ascribe to prospective loan forgiveness and interrogates how magical thinking contributes to enrollees’ perspectives on prospective loan forgiveness. With several of these sources of meaning standing in conflict with each other and with confidence in personal prospects of loan forgiveness fairly low, we argue that magical thinking overlays the meaning of potential loan forgiveness among some borrowers.


La République démocratique du Congo (RDC) s’est engagée, depuis 2019, à rendre effective la gratuité de l’enseignement primaire sur toute l’étendue du territoire national. Cette réforme trouve son fondement dans l’article 43 de la Constitution de 2006, qui impose à l’État de prendre en charge les frais de scolarité de l’éducation de base dans les établissements publics. Ces frais ont été initialement introduits dans les années 1980 pour couvrir les salaires des enseignants et les coûts de fon...


This paper formulates a simple skill and education model to explain how better access to higher education leads to stronger assortative mating on skills of parents and more polarized skill and earnings distributions of children. Swedish data show that in the second half of the 20th century more skilled students increasingly enrolled in college and ended up with more skilled partners and more skilled children. Exploiting college expansions, we find that better college access increases both skill sorting in couples and skill and earnings inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.


This paper formulates a simple skill and education model to explain how better access to higher education leads to stronger assortative mating on skills of parents and more polarized skill and earnings distributions of children. Swedish data show that in the second half of the 20th century more skilled students increasingly enrolled in college and ended up with more skilled partners and more skilled children. Exploiting college expansions, we find that better college access increases both skill sorting in couples and skill and earnings inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.
up with more skilled partners and more skilled children. Exploiting college expansions, we find that better college access increases both skill sorting in couples and skill and earnings inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.

La manière dont les gouvernements décident du niveau de financement des établissements publics d’enseignement primaire varie considérablement, même si elle répond généralement à des critères réglementés. Des restrictions sont généralement imposées sur les modalités d’utilisation des fonds alloués, qui doivent être affectés à des catégories de dépenses spécifiques. Cette pratique n’est toutefois pas universelle et les établissements de certains pays de l’OCDE disposent d’une très grande autonomie pour l’affectation de leurs ressources, même s’ils n’ont que peu d’influence sur le montant initial des fonds attribués.

OECD. (2022a). How are public primary schools funded? Education Indicators in Focus, 82. 1-6. https://doi.org/10.1787/7564ac6a-en
Governments vary greatly in the way they decide the level of funding for public primary schools, although typically it involves using a combination of rule-based and discretionary criteria. They also tend to place restrictions on how funding is used by earmarking it for particular categories of expenditure. This practice is not universal, however, and schools in some OECD countries have considerable autonomy in how they allocate their resources even if they have little influence over how much they receive.

OECD. (2022b). How are public primary schools funded? Education Indicators in Focus, 82. https://doi.org/10.1787/7564ac6a-en
Coachs et avocats spécialisés dans l’orientation ou les recours juridiques profitent du stress généré autour de la plate-forme d’admission postbac, dont la première phase d’inscription commence le 18 janvier.

Cognitive endurance -- the ability to sustain performance on a cognitively-demanding task over time -- is thought to be a crucial productivity determinant. However, a lack of data on this variable has limited researchers’ ability to understand its role for success in college and the labor market. This paper uses college-admission-exam records from 15 million Brazilian high school students to measure cognitive endurance based on changes in performance throughout the exam. By exploiting exogenous variation in the order of exam questions, I show that students are 7.1 percentage points more likely to correctly answer a given question when it appears at the beginning of the day versus the end (relative to a sample mean of 34.3%). I develop a method to decompose test scores into
fatigue-adjusted ability and cognitive endurance. I then merge these measures into a higher-education census and the earnings records of the universe of Brazilian formal-sector workers to quantify the association between endurance and long-run outcomes. I find that cognitive endurance has a statistically and economically significant wage return. Controlling for fatigue-adjusted ability and other student characteristics, a one-standard-deviation higher endurance predicts a 5.4% wage increase. This wage return to endurance is sizable, equivalent to a third of the wage return to ability. I also document positive associations between endurance and college attendance, college quality, college graduation, firm quality, and other outcomes. Finally, I show how systematic differences in endurance across students interact with the exam design to determine the sorting of students to colleges. I discuss the implications of these findings for the use of cognitive assessments for talent selection and investments in interventions that build cognitive endurance.


Umbricht, M. R., Fernandez, F., & Ortega, G. (2023). The Blind Side of College Athletics: Examining California’s Student Athlete Bill of Rights and Athletic Expenditures. *Research in Higher Education, 64*(1), 33-57. https://doi.org/10.1007/s11162-022-09697-5 Many college athletes suffer career-ending injuries that leave them with expensive medical bills and lost scholarship opportunities. California’s 2012 student athlete bill of rights mandated that the state’s universities continue to care for college athletes by providing access to medical care and equivalent scholarships even if they were injured and could no longer participate in athletics. We analyzed publicly available data from the college athletics financial information database using multiple quasi-experimental approaches, including difference-in-differences with propensity score weights and synthetic control methods. We found evidence that Cal-Berkeley and UCLA increased medical expenditures but not student aid. Our findings were robust across both types of analyses. We discuss implications and offer directions for future research related to policy implementation.


This study aimed to investigate the contribution of teacher support and parental monitoring to academic performance over three years, testing the mediating role of self-determined motivation and academic self-efficacy and establishing whether the role of teachers and parents varies over time. A total of 419 adolescents—201 males (48%) and 218 females (52%)—aged 14.34 years (SD = .90)—attending at T1 the ninth grade of schooling participated in the study. The questionnaires were administered three times over three years in February 2016 (T1), February 2017 (T2), and February 2018 (T3). Specifically, at T1, the students answered questionnaires regarding parental monitoring and teacher support. At T2 and T3, the students completed questionnaires about self-determined motivation and academic self-efficacy. At the end of each school year, in June 2017 (T2b) and June 2018 (T3b), the teachers’ assessments of the students’ academic performance expressed in school marks were collected. A structural equation model was used to test the hypothesised longitudinal relations between the study variables. The results showed that teacher support and parental monitoring directly and positively affected motivation and self-efficacy over time, which, in turn, impacted academic performance positively. The results also indicated that teacher support and parental monitoring indirectly affected academic performance over time through the mediation of motivation and self-efficacy and that the parents’ influence was highest on motivation, while the teachers’ influence was highest on self-efficacy. These results suggest the importance of implementing interventions aimed at enhancing parental monitoring and teacher support to improve students’ academic performance.


Since there has been no clear overview of educational practices that benefit high-ability students in mixed-ability classrooms in grades one to six, this review aims to provide insight into the effects of educational practices on the cognitive and affective-motivational learning outcomes of high-ability students. In order to identify these educational practices, we conducted a review of the existing literature, comprising a systematic search of the Education Resources Information Center and Web of Science databases for studies from the last 25 years. Only empirical studies that investigated the impact of interventions were included. Applying these criteria resulted in the inclusion of seventeen studies. Four different educational practices were shown to have a positive impact on cognitive learning outcomes: providing dynamic feedback, enhancing self-regulated learning, adjusting the curriculum and providing differentiated instruction. The impact of educational practices on affective-motivational learning outcomes was inconclusive. Based on this review, we conclude that teachers can help high-ability students in mixed-ability classrooms in grades one to six across various educational contexts using the educational practices reported in this study.
Online courses have become widespread in higher education. Yet, despite their prevalence, they may not suit all learners. Personality influences learner satisfaction and therefore affects learning experience. This study explores the relation between personality traits (using Costa & McCare’s Big-Five model) and student satisfaction with various learning activities offered in online courses, called Techno-Pedagogical Learning Solutions (TPLS). The tested TPLS were discussion groups, digital books, online assignments, surveys/polls and media. Questionnaires were used to measure personality types and satisfaction of 108 university students enrolled in a credited online academic course. Significant correlations were found between all five personality traits and satisfaction with several TPLS. Cluster analysis method was applied to identify learners with similar personality traits. Four groups were formed and group’s satisfaction score was measured. It was found that learners assigned to the « neurotic » group exhibited low satisfaction with all TPLS, contrary to learners assigned to the « non-neurotic » group. The findings clearly indicate that personality plays a significant role in online learner satisfaction. Thus, personality traits should be considered when designing learning activities for online courses. Such personality-based personalization may ensure that no learner is left behind, regardless of his/her attitude toward online learning.


Quelle est la plus-value des logiciels pédagogiques ? Lors d’une conférence organisée par le Café pédagogique et Evidence B, Rania Abdelghani, chercheuse et doctorante à l’INRIA de Bordeaux explique les bienfaits de la motivation intrinsèque chez les élèves, preuves scientifiques à l’appui. « Contrairement aux motivations générées par des éléments externes comme des récompenses ou des évaluations,…


In this review, we evaluate the claim that translanguaging in the classroom supports the development of the bilingual lexicon by enhancing cross-linguistic transfer. To address this issue, we integrate findings from psycholinguistics and educational sciences in order to identify how effective pedagogical practices for monolingual children can be extended to pedagogical practices for bilingual children. We show that both monolingual and bilingual children benefit from teaching strategies that strengthen the mental connections between semantically and phonologically related words, and that for bilingual children, these strategies should support both within- and cross-language connections. We argue that by stimulating the use of the home language in the classroom, translanguaging strategies like multilingual label quests and multilingual reading and writing can strengthen cross-language connections and, thereby, facilitate cross-linguistic lexical transfer. For closely related languages, stimulation of the home language has the additional benefit of implicitly facilitating the transfer of cognate...
vocabulary. Explicit instruction about cognates could further stimulate the development of cognate awareness, but whether it also enhances vocabulary learning is still an open question.


Depression is one of the leading mental health concerns among science undergraduates, and rates of student depression increased during the COVID-19 pandemic. Revealing one’s depression in an academic science environment can be helpful, because it can result in increased support from others. However, depression is considered a concealable stigmatized identity, meaning that it can be kept hidden and may carry a stigma. A national pivot to online learning owing to COVID-19 not only increased the need to bolster student mental health, but also presented a novel learning environment. However, it is unclear to what extent students revealed their depression in science courses and why. We surveyed 1179 undergraduates with depression at a research-intensive institution about whether they had revealed their depression to an online college science instructor. Very few undergraduates (5.9%) had revealed their depression to online science instructors; students who identify as LGBTQ+, have lower grade point averages, or experience more severe depression were more likely to reveal their depression to an instructor. Undergraduates reported potential benefits from doing so, including building a connection with the instructor and receiving accommodations. This work provides insight into steps science instructors can take to foster inclusive course environments for students with depression.


This study investigated the motivation of Taiwanese undergraduate EFL students in learning English-to-Chinese translation and the intention to use a digital game-based learning app called CHEN-slate. The app, consisting of a learning zone, practice zone, and competition zone and including translation skills needed for actual translation practice, was developed as a supportive learning tool to equip students with the necessary translation skills and to enhance their translation experiences. This study was conducted in spring semester in 2020. The responses to a questionnaire, designed based on theories including Dörnyei’s L2 motivational self-system and the technology acceptance model, were analyzed quantitatively and qualitatively to identify the most prevalent type of motivation among students to learn English-to-Chinese translation (one-way repeated-measures ANOVA), students' perception toward the use of CHEN-slate, and the relationship between students’ intention to use CHEN-slate and their learning motivation (linear regression analysis). Moreover, the pre-test and post-test variables were compared by using a paired-sample t test. The results of the study indicated that achieving the ideal self-image and translation learning experience are the most prevalent motivation types that encourage Taiwanese students to learn translation. The findings of this study also indicate that students have positive attitudes toward the adoption of CHEN-slate and have high intention to use the app facilitate their learning process. Finally, a significant positive relationship was found between students’ intention to use the app and their translation learning experience. This study offers pedagogical
implications for instructors in translation courses to enhance students' learning motivation and effectively use game-based learning apps in translation courses.


This research was designed to examine how teachers and students from various cultures (China vs. USA) might present distinct behavioural features in learner-centred classrooms. The findings of the research would serve the purpose to answer the question regarding whether and how learner-centred instruction could better support the learning of students from non-Western cultures. Chinese students experiencing learner-centred instruction (the experimental group), Chinese students from traditional classrooms (the control group), and American students responded to measures assessing their perceived teacher behaviours, and their own learning behaviours along with other two highly relevant variables, namely academic motivation and self-efficacy. The results indicated that Chinese teachers and students in the experimental group presented certain distinct behavioural features in comparison to both control group and American group. It suggested that the implementation of learner-centred instruction brought certain behavioural changes for Chinese teachers and students. However, on the other hand, their behavioural changes were not completely consistent with expectations. For instance, Chinese teachers in the experiment group did not present better performance in empowerment and individualized instruction, and their students did not exhibit more autonomous and self-directed learning behaviours as expected. The implications of the research were discussed in the paper.


There is today ample evidence that academic achievement depends on individual disparities in socioeconomic status (SES), working memory (WM) and academic self-concept (ASC). However, because these factors were investigated intensively but in separate fields of research in the past four to six decades, their relationships remain largely unknown. The present study investigated whether SES, WM and ASC interact with each other or represent independent contributions to academic achievement in 2379 adolescents in middle and high schools. The findings confirmed previous results showing that students with lower SES, lower WM and lower ASC perform less well on academic tests. Above all, they revealed subtle patterns of mediating processes. Specifically, individual differences in WM processing, and to a lesser extent in ASC, accounted for most part of the negative impact of low SES on academic achievement. These findings indicate that being a member of disadvantaged groups impair both WM processing and ASC and provide a clearer picture of the complex involvements of socioeconomic, cognitive and self-perception factors in academic achievement.

Students, who are trying to complete academic activities in an educational environment, are objected to academic stress. Research results indicated that this stress can be reduced by the individual and psychosocial resources of them. So, this study aimed to determine the mediating role of grit and academic self-efficacy in the relationship between students’ psychological need satisfaction and academic stress. The research was conducted on 967 college students who are studying at education, theology, and medical education faculty. We used serial mediation analysis to determine the mediator effect. Results demonstrated that there are statistically significant positive relationships between autonomy, competence, and relatedness, which are the components of psychological need satisfaction, grit, and academic self-efficacy, and negative relationships between academic stress. Mediation analysis results showed that the serial mediator effect of grit and academic self-efficacy was statistically significant in the relationship between autonomy, competence, relatedness, and academic stress. The research findings were interpreted according to the self-determination theory and positive psychology literature.


Undergraduate research is lauded as a high-impact practice owing to the array of benefits that students can reap from participating. One unexplored construct that may affect student intent to persist in research is research anxiety, defined as the sense of worry or apprehension associated with conducting research. In this study, we surveyed 1272 undergraduate researchers across research-intensive, master’s-granting, and primarily undergraduate institutions to assess the relationship among student demographics, research anxiety, and intent to pursue a research career. Using structural equation modeling, we identified that women and students with higher grade point averages (GPAs) were more likely to report higher levels of research anxiety compared with men and students with lower GPAs, respectively. Additionally, research anxiety was significantly and negatively related to student intent to pursue a research-related career. We coded students’ open-ended responses about what alleviates and exacerbates their anxiety and found that experiencing failure in the context of research and feeling underprepared increased their research anxiety, while a positive lab environment and mentor–mentee relationships decreased their anxiety. This is the first study to examine undergraduate anxiety in the context of research at scale and to establish a relationship between research anxiety and students’ intent to persist in scientific research careers.


The present study focuses on how elementary-level student teachers reacted to difficulties during their first internship experience. More specifically, we analysed how their self-efficacy was affected by (a) their perception of failure during the internship, (b) the importance they assigned to their teacher self-aspect, and (c) the interaction between these two constructs. Using a quantitative design (N = 124), we measured their self-efficacy both before and after a 2-week internship. Results showed an overall increase in self-efficacy, but no such increase for participants with high teacher self-aspect who reported high failure experience, which indicated an amplifying moderation effect of
teacher self-aspect in the relation between failure experience and change in self-efficacy. We discuss the profile of these “high-importance/high-failure” students and the support that can be given to them.


Understanding psychological processes underlying change in teachers’ psychological functioning is crucial to identifying the developmental processes at play. Guided by self-determination theory, this study uses a sample of 330 teachers in the northeastern United States of America to examine if initial levels of teachers’ basic psychological needs (i.e., global psychological need satisfaction, autonomy, competence, relatedness) are associated with change in components of psychological functioning over time. Results indicate that most psychological needs are unassociated with change in psychological functioning, raising questions about how and when those needs are implicated to support teachers. Implications for research and practice are discussed.


Emotion regulation is theorized to shape students’ engagement in learning activities, but the specific pathways via which this occurs remain unclear. This study examined how emotion regulation mechanisms are related to behavioral and emotional engagement as well as relations with peers and teachers. The sample included 136 secondary school students (59.7% girls; Mage = 14.93, SDage = 1.02, range: 13–18 years). Psychometric network models revealed that difficulties in emotional awareness, emotional clarity, and access to emotion regulation strategies were differentially related to behavioral and emotional engagement, establishing an indirect link with teacher and/or peer relations. Nonacceptance of emotional responses, emotional awareness, and impulse control difficulties were uniquely related to teacher and/or peer relations, establishing an indirect link with student engagement. Causal discovery analysis suggested that student emotional engagement is an empirically-plausible direct cause of increased access to emotion regulation strategies. These findings uncover potential pathways through which emotion regulation hampers or facilitates learning at school, providing information useful for the design of school curricula and teacher training programs.


This study investigated motivational and affective processes behind qualitatively different parental involvement practices in children’s homework. Parent motivational beliefs (achievement goals, efficacy beliefs for their children, self-efficacy beliefs) were examined as predictors of parent autonomy support, control and interference, and parent positive and negative affect as mediators between motivational and behavioral parental variables. A total of 807 5th Grade children and one of their parents participated in the sample. Structural equation modeling was utilized for data analysis.
The results showed that mastery goals predicted positively autonomy support and negatively interference, whereas performance goals predicted controlling practices positively. Parent beliefs of children’s efficacy predicted negatively all three parental involvement practices, and parent self-efficacy beliefs positively predicted autonomy support and control. Both positive and negative affect predicted control and interference positively and mediated the relationship between parents’ efficacy beliefs and controlling practices. The results indicate the importance of examining relationships among motivational, affective and behavioral parental variables toward a better understanding of parental homework involvement quality.


The role of soft skills at school is still debated, but they have emerged as important factors for students’ academic achievement and life satisfaction. This study focuses on the combined influence of soft skills (in terms of adaptability, curiosity, leadership, initiative, perseverance, and social awareness), extracurricular activities, achievement emotions, self-regulated learning, motivation, and cognitive abilities on academic achievement and life satisfaction. A sample of 603 students (5th to 12th graders) participated in the study. The results of a Bayesian path analysis based on meta-analytical priors show that soft skills were (i) directly positively associated with students’ achievement emotions, self-regulated learning, motivation, and life satisfaction and (ii) indirectly related with academic achievement through the mediation of self-regulated learning and motivation. On the other hand, only soft skills and achievement emotions were directly related to life satisfaction. Extracurricular activities showed a positive association with both soft skills and cognitive abilities. These results are the first to demonstrate the importance of soft skills and extracurricular activities when integrating all the above-mentioned factors in a model of students’ academic achievement and life satisfaction.


This study examined the factorial and construct validity of a multi-dimensional measure of motives for writing with middle school students. The Writing Motivation Questionnaire included 28 items assessing seven motives for writing. Two motives assessed intrinsic reasons for writing (curiosity, involvement); three motives addressed extrinsic reasons (grades, competition, and social recognition); and two motives apprised self-regulatory reasons (relief from boredom, emotional regulation). A sample of 1983 sixth- (n = 970) and seventh-grade students (n = 1013) from a school district in the USA completed the questionnaire as well as a District writing test administered at the same time and a State writing test administered eight months later. Confirmatory factor analyses supported the hypothesized seven-facet structure of the Writing Motivation Questionnaire as well as second-order models (e.g., three-order factor involving intrinsic, extrinsic, and self-regulatory motives). Measurement invariance was established for grade-level (sixth- vs. seventh), gender, free/reduced lunch status, special education status, and race (White and non-White students). All seven writing motives evidenced adequate reliability for
research purposes. Students’ writing motive scores predicted writing performance on the District and State tests. Recommendations for future research are provided.


When it comes to biology lessons in Germany, girls generally exhibit higher levels of self-determined motivation than boys. Previous research suggests that fostering student autonomy could be a way to effectively address this gender gap. To investigate gender-related effects in biology education, a sample of 303 sixth-grade students (Mage = 11.31 years, SDage = 0.58 years) participated in a 3-h teaching unit on harvest mice that was taught in either an autonomy-supportive or controlling manner. The results revealed a significant effect of the treatment on self-determined motivation, with the effect being stronger for the boys. In the treatment with controlling teaching behavior, gender-related differences in self-determined motivation became apparent. In contrast, the gender gap was mainly smaller in the treatment with autonomy-supportive teaching behavior. Thus, the results suggest that satisfying the need for autonomy appears to be an effective means to help bridge the gender gap in biology lessons.


There is currently renewed interest in transnational education (TNE) amongst UK universities as a means of taking education to the 98% of tertiary students worldwide who are geographically immobile. In this discourse, the home universities are characterised as the dominant players, seeking strategic opportunities to commercially expand into foreign markets. This paper argues that, in contrast, there are four key stakeholders in TNE—the home university, the partner organisation, the host government and students in the host country—and a TNE partnership is shaped by their relative power and motivations. The paper finds that unless the motivations of stakeholders are broadly aligned to the form of TNE partnership, it is unlikely to succeed. It highlights the fluid nature of these motivations which change over time—often slowly, but sometimes abruptly when there is a change in university strategy or policy on the part of the host government.


This study aims at describing differences in internal and external resources of students to handle mathematics learning from home. Based on data from N=223 7th-grade secondary school students gathered via an online survey at the end of the first school year during the COVID-19 pandemic, we used latent profile analysis to identify student profiles defined by the internal factors perceived value and success of students’ math learning from home and the external factors family support and teacher support—all specifically related to home learning. A number of general learning conditions, comprising internal (e.g., sustained attention) and external factors (e.g., socioeconomic status), are included as outcome variables. The best-fitting four-profile solution suggests one profile with comparably unfavorable internal and external resources. About 35% of the students are assigned to that profile. The other three profiles show combinations of, relative to the sample, more and less promising specific home learning and general
learning conditions suggesting that these students have different resources available in the face of learning mathematics from home.


The relationship between students' subject-specific academic self-concept and their academic achievement is one of the most widely researched topics in educational psychology. A large proportion of this research has considered cross-lagged panel models (CLPMs), oftentimes synonymously referred to as reciprocal effects models (REMs), as the gold standard for investigating the causal relationships between the two variables and has reported evidence of a reciprocal relationship between self-concept and achievement. However, more recent methodological research has questioned the plausibility of assumptions that need to be satisfied in order to interpret results from traditional CLPMs causally. In this substantive-methodological synergy, we aimed to contrast traditional and more recently developed methods to investigate reciprocal effects of students' academic self-concept and achievement. Specifically, we compared results from CLPMs, full-forward CLPMs (FF-CLPMs), and random intercept CLPMs (RI-CLPMs) with two weighting approaches developed to study causal effects of continuous treatment variables. To estimate these different models, we used rich longitudinal data of N = 3757 students from lower secondary schools in Germany. Results from CLPMs, FF-CLPMs, and weighting methods supported the reciprocal effects model, particularly when math self-concept and grades were considered. Results from the RI-CLPMs were less consistent. Implications from our study for the interpretation of effects from the different models and methods as well as for school motivation theory are discussed.


The Youth Global Awareness Programme (YGAP) is a 2-week residential ‘popular education’ programme for young, diverse, international, labour movement activists, run by the International Federation of Workers Education Associations in Cape Town, South Africa. In this mixed method study (N = 47), we draw on the Social Identity Approach to Education and Learning. We propose that the participatory, peer-to-peer learning during YGAP leads to activist identity change, where critical consciousness, collective empowerment and global awareness develop as group norms. The first longitudinal questionnaire study found significant increases in activist identity and critical consciousness, which predicted increased collective empowerment. In the second focus group study, data were analysed with reflexive thematic analysis and two themes provide compelling evidence of learning during YGAP as identity change processes. Participants’ commonalities and differences enhanced activist identities with global awareness. Simultaneously, new knowledge, passion, hope and connection to a global activist community created collective empowerment.
The purpose of this study is to investigate how well-being changes over the adult life course from early adulthood in 1998 through to the COVID-19 pandemic in 2021. We identify diverse well-being trajectories over time in a cohort of British Columbians and explore the extent to which changes in well-being associated with the pandemic varied for individuals in these different trajectory groups. Specifically, we ask: what was the effect of the pandemic on the well-being of individuals with different prior well-being trajectories over adulthood and how were these effects related to personal, educational and employment factors? To address this question, we model well-being trajectories over a large span of adulthood from the age of 28 to 51 years old. We find a diversity of distinct patterns in well-being changes over adulthood. The majority experience high well-being over time, while almost one in five experiences either chronically low or drastically decreased well-being in mid-adulthood, which coincides with the pandemic. Notably, those who have completed post-secondary education are less likely to report low well-being trajectories. Those with the lowest well-being over time also report the largest negative effects of the pandemic, which illustrates the compounding effects of the pandemic on existing inequalities.


Many youth experience declines in psychosocial well-being during the transition from high school to postsecondary. Hypothesizing that extracurricular activity involvement in high school functions as a resource factor, the current study examines type and breadth as predictors of psychosocial well-being one year postsecondary. The sample (N = 4070) consisted of students from diverse ethnic-racial and socio-economic status backgrounds (30% Latinx; 60% had a parent without a college degree; 47% cisgender female). Eleventh grade involvement in sports was linked with lower loneliness, social anxiety, and depressive symptoms, and higher self-worth, whereas special interest clubs were associated with lower social anxiety and depressive symptoms. Examining breadth, one or two activities were linked with optimal psychosocial well-being. The results suggest that sports and special interest clubs, and up to two activity domains, are associated with optimal psychosocial well-being, providing recommendations for extracurricular programming and youth involvement.


We propose genetic social psychology as a theoretical framework to render intelligible both the suppression of the expression of prejudice and prejudice reduction in childhood.
In particular, we explore the role of positive in-group norms in prejudice reduction in childhood and adolescence and their interplay with realistic and symbolic threats and subgroup identification in the post-conflict setting of Cyprus in a sample of 303 (51.5% female) 7–12-year-old students (mean age = 8.73 SD = 1.58) and 387 (60.2% female) 12–17-year-old students (mean age = 14.24 SD = 1.45) collected from a random sample of thirty-nine schools in the Greek Cypriot community. The following hypotheses were tested (a) threats and social identification will form a closer link with prejudice in older than younger children (H1), (b) positive in-group norms will “trump” threats in relation to the expression of prejudice in older children (H2), (c) strength of identification would enhance the effect of positive in-group norms in the expression of non-prejudicial views (H3), and finally (d) strength of identification would enhance the impact of positive norms on prejudice reduction in childhood, through a deeper conversion process of threat reduction, whereas on the contrary, it will diminish their impact in adolescence through ideological resistance (H4). We found broad support for our hypotheses and discuss practical implications of the findings for education.


The German Physics Olympiad is an extracurricular science contest for students. Here, they have the opportunity to compete against other talented students, can do physics outside of school, and take a first step to more engagement in the domain. Yet, female students participate in the competition in fewer numbers and are disproportionally more likely to drop out of the contest earlier than the male students.


Ancrée en sciences de l’éducation et de la formation, cette recherche doctorale s’appuie sur un jeu d’hypothèses sur les liens existants entre trois dimensions: (1) le sentiment d’autoefficacité d’étudiants infirmiers à persister en formation; (2) les stratégies volitionnelles qu’ils utilisent durant leurs activités d’apprentissage présentielles et à distance; et (3) leur perception de l’accompagnement mené par leur formateur référent. Le contexte éducatif dans lequel s’inscrivent ces étudiants est hybride, au sens où leur formation allie des séances en présentiel et à distance. Au plan empirique, la démarche s’est déployée en deux phases, chacune renvoyant à des objectifs spécifiques mais reliés entre eux. La première avait pour but de vérifier, au plan statistique, l’existence de lien entre ces trois dimensions et, s’il était avéré, de déterminer la force et la direction de celui-ci. La seconde phase visait, quant à elle, à comprendre la nature de la relation entre les trois dimensions. Les résultats de cette démarche mixte de recherche auprès d’étudiants infirmiers inscrits en 2e année dans un dispositif hybride montrent que trois perceptions soutiennent les stratégies volitionnelles qu’ils utilisent: (1) la perception d’une aide de la part de leur formateur référent afin d’avoir confiance en eux, (2) celle d’un accompagnement de sa part dans leur projet professionnel et (3) la perception que les informations qu’il leur transmet est de qualité. De plus, les résultats révèlent que le sentiment d’autoefficacité de ces étudiants à persister dans leurs études est soutenu par des stratégies volitionnelles regroupées en cinq catégories: (1) un
respect par les étudiants de leur propre fonctionnement personnel, (2) une gestion de leur environnement de travail, (3) une sollicitation de leurs pairs, (4) une motivation intrinsèque à l’égard de leur formation et (5) une gestion personnelle des émotions ressenties en formation. En outre, même si l’accompagnement du formateur référent permet un meilleur vécu de formation, il n’a, selon les étudiants, aucune incidence directe sur leur sentiment de se sentir capables de persister dans leur formation. Enfin, cette recherche tend à montrer, mais de façon moins probante, que leur perception de l’hybridation du dispositif a un effet sur leur sentiment d’autoefficacité à persister en formation, ainsi que sur les stratégies déployées pour concilier la formation avec leur vie personnelle, en particulier pour les étudiants en reprise d’études.


This study analyses academics’ commitment and job satisfaction according to full-time non-tenure-track (FTNT) and full-time tenure-track (FTT) in South Korea’s changing academic environment. Data were collected from the 2018 Academic Profession in the Knowledge-Based Society Survey. One-way analyses of variance show no statistically significant differences in professional commitment (PC) and organisational commitment (OC) between FTNT and FTT academics, but FTNT academics exhibit significantly lower job satisfaction. Hierarchical linear regression models indicate that OC positively relates to job satisfaction, but PC is not statistically significantly associated with job satisfaction. This study argues that work conditions and stable positions are important factors in job satisfaction, though committed academics are likely to remain with the profession and organisation. These findings have implications for the treatment of academics and for university hiring and promotion procedures in today’s changing academic environment.


Transition into higher education (HE) has received increased interest in recent years, since it represents a challenging period for students. The aim of this study was to further understand the associations between self-efficacy, academic achievements, and regulation in first-year university students during their transition into HE. The convenience sample consisted of 374 first-year university students (230 females, 61.5%), aged from 18 to 33 (M = 19.86, SD = 1.51) and recruited from an Italian university. Self-efficacy was assessed using the Motivated Strategies for Learning Questionnaire; regulation strategies were assessed with the Inventory of Learning Patterns of Students; and a self-reported grade point average was taken as an indicator of each student’s academic performance. Result shows that students’ self-efficacy was positively associated with self-regulation and negatively associated with a lack of regulation. Students with higher self-efficacy and self-regulation strategies had better academic performance. Female students performed better in academic activities and adopted more external regulation strategies. The findings represent an opportunity for university institutions to consider the interventions they provide to first-year students in order to facilitate the successful transition from secondary school; they also provide researchers with further knowledge about the effect of self-efficacy, and regulation strategies on students’ adjustment to HE.

Research indicates that to adjust a group’s emotional atmosphere for successful collaborative learning, group members need to engage in group-level emotion regulation. However, less is known about the whys and ways regulation is activated at a group level. This research explores what triggers 12-year-old primary school students’ (N = 37) negative socio-emotional interactions during a collaborative science task and whether the nature of the trigger makes a difference to group-level emotion regulation strategies and their sequential composition in these interactions. Groups’ collaborative working was videotaped, and triggers and strategies were analysed. The results reveal that the triggers of negative interactions are linked to the groups’ activated regulation strategies. Motivation control strategies were more represented in situations where negative interactions were triggered by task-related issues, whereas socially related triggers were associated with behavioural regulation strategies. Furthermore, the results illustrate that strategies are concatenated to a series of strategic actions, which mostly begin with sharing an awareness of the trigger. The results indicate a need to focus on the series of strategic actions activated in group interactions. This will help reveal how socially shared regulatory processes build a group’s emotional atmosphere.


The present contribution reports a systematic review of the literature that analyzed the relationships between teachers’ subjective well-being (SWB) and student school experience (i.e., academic performance, academic engagement, student well-being, and student reports of teacher-student interactions). We categorized teachers’ well-being into hedonic SWB (e.g., experiencing positive emotions, life satisfaction, job satisfaction) and eudaimonic SWB (e.g., experiencing high psychological functioning or high sense of self-realization). An online search yielded 1872 abstracts that were analyzed for eligibility, yielding a number of 26 studies that were included in the meta-analysis. These 26 contributions (i) reported an empirical research study; (ii) collected data from teachers and students; and (iii) reported zero-order standardized correlation coefficients between teacher data and student data. We found that most studies focused on assessing teachers’ psychological functioning (20 studies). Overall results suggested that teachers’ eudaimonic SWB had moderate associations with the quality of student–teacher interactions (r = .243, 95% CI [.045; .422], k = 9), with students’ well-being (r = .280, 95% CI [.117; .428], k = 8), and with student engagement (r = .250, 95% CI [.115; .375], k = 8). We found weaker correlations between teachers’ eudaimonic SWB and student achievement (r = .065, 95% CI [.016; .112], k = 8). Our results suggested that teachers’ eudaimonic SWB is significantly associated with student-related variables, but the directionality of this relationship needs further investigations.

Schools are an ideal setting to base mental health literacy programs as the learning environment is already established. Mental health literacy represents how to obtain and maintain good mental health and should be incorporated into the school curriculum. Collaboration with key stakeholders in youth mental health, such as school staff and allied health professionals, is critical in ensuring needs are addressed, and programs are sustainable. This study aimed to understand the perspectives of school staff and allied health professionals towards mental health literacy within Australian schools. An exploratory qualitative and quantitative survey was completed by 88 participants across Australia. Results indicated that school staff feel less competent to deliver mental health literacy content and perceive their training did not address mental health education compared to allied health professionals. Most mental health programs reported to be implemented within schools were social and emotional learning programs. School staff viewed mental health programs to strengthen academic performance less than allied health professionals. Thematic analysis of qualitative data identified that participants viewed mental health knowledge, where and how to seek help, and coping skills as vital content to cover in a school-based mental health literacy program. This study reveals that school staff need sufficient training and resources to address youth mental health literacy. Though mental health literacy is lacking in the Australian school system, the perspectives of school staff and allied health professionals in this study provide key ideas and considerations for the future development of school-based mental health literacy programs for youth.


Prior research has shown the importance of collaborative culture as well as teacher job satisfaction and commitment in navigating complex school improvement processes. This study investigated the relationship between collaborative culture, affective commitment, and job satisfaction of teachers taking both collaborative cultures in the entire school, as well as in informal subgroups, into account. Survey data of 760 teachers, nested in 136 subgroups and 13 secondary schools, were analyzed using multilevel path analyses. Results show that collaborative culture in the informal subgroup is positively related to teachers’ affective commitment and job satisfaction and that affective commitment is a mediator. The collaborative culture at the school level was not a significant predictor. School leaders need to be aware that there are, to some extent, subgroups within the school which develop their own collaborative culture through social contagion processes which impact job satisfaction and affective commitment to a greater extent than the school-level culture.


Although the roles of symbolic numerical magnitude processing (SNMP) and working memory (WM) in mathematics performance are well acknowledged, studies examining their joint effects are few. Here, we investigated the profiles of SNMP (1- and 2-digit comparison) and WM (verbal, visual and central executive) among Norwegian first graders (N = 256), and how these predict performance in counting, arithmetic facts and
word problem-solving. Using latent class cluster analysis, four groups were identified: (1) weak SNMP (33.6%), (2) strong SNMP (25.8%), (3) weak SNMP and WM (23.4%) and (4) strong WM (17.2%). Group differences in mathematics performance were significant with explained variance ranging from 7 to 16%, even after controlling for relevant demographics and domain-general cognitive skills. Our findings suggest that children may display relative strengths in SNMP and WM, and that they both have a unique, even compensatory role in mathematics performance.


Although the role played by finger use in children’s numerical development has been widely investigated, their benefit in arithmetical contexts is still debated today. This scoping review aimed to systematically identify and summarize all studies that have investigated the relation between fingers and arithmetic skills in children. An extensive search on Ovid PsycINFO and Ovid Eric was performed. The reference lists of included articles were also searched for relevant articles. Two reviewers engaged in study selection and data extraction independently, based on the eligibility criteria. Discrepancies were resolved through discussion. Of the 4707 identified studies, 68 met the inclusion criteria and 7 additional papers were added from the reference lists of included studies. A total of 75 studies were included in this review. They came from two main research areas and were conducted with different aims and methods. Studies published in the mathematical education field (n = 29) aimed to determine what finger strategies are used during development and how they support computation skills. Studies published in cognitive psychology and neuroscience (n = 45) specified the cognitive processes and neurobiological mechanisms underlying the fingers/arithmetic relation. Only one study combined issues raised in both research areas. More studies are needed to determine which finger strategy is the most effective, how finger sensorimotor skills mediate the finger strategies/arithmetic relation, and how they should be integrated into educational practice.


When students are grouped into school tracks, this has lasting consequences for their learning and later careers. In Germany to date, some groups of students (boys, ethnic minority students) are underrepresented in the highest track. Stereotypes about these groups exist that entail negative expectations about their suitability for the highest track. Based on the shifting standards model, the present research examines if and how stereotypes influence tracking recommendations. According to this theory, members of negatively stereotyped groups will be judged more leniently or more strictly depending on the framing of the judgment situation (by inducing minimum or confirmatory standards). N = 280 teacher students participated in a vignette study in which they had to choose the amount of positive evidence for suitability they wanted to see before deciding to recommend a fictitious student to the highest track. A 2 (judgment standard: minimum vs. confirmatory) × 2 (target student’s gender: male vs. female) × 2 (target student’s ethnicity: no migration background vs. Turkish migration background) between-subjects design was used. No effects of target gender occurred, but the
expected interaction of target’s ethnicity and judgment standard emerged. In the minimum standard condition, less evidence was required for the ethnic minority student to be recommended for the highest track compared to the majority student. In the confirmatory standards condition, however, participants tended to require less evidence for the ethnic majority student. Our experiment underlines the importance of the framing of the recommendation situation, resulting in a more lenient or stricter assessment of negatively stereotyped groups.


Le premier confinement dû au virus du COVID-19 a induit des changements importants dans la vie des adolescents, mais on sait peu de choses sur les processus qui ont affecté l’engagement scolaire des jeunes durant cette période. Cette étude aborde la question en testant un modèle de processus de stress explicatif de l’engagement scolaire pendant cette période, fondé sur les stresseurs du confinement et les ressources des adolescents. Des données ont été recueillies auprès de 406 adolescents français et de leurs parents (classes de 6 è à 3 è , 47% de filles). Les résultats montrent que de multiples stresseurs (anxiété parentale, absence d’Internet ou d’ordinateur, activités scolaires peu pertinentes et peu claires) et ressources (concept de soi académique, soutien des parents et soutien des enseignants) ont affecté les niveaux d’engagement, et que certains effets étaient entremêlés (par exemple, les effets des activités scolaires peu pertinentes et peu claires étaient modérés et médiatisés par le concept de soi académique). Des implications sont tirées sur les moyens d’intervenir sur les processus de stress et d’aider les adolescents à rester engagés dans leur travail scolaire en temps de confinement.


Due to rapid developments, mobile technologies started to play an essential role in designing seamless learning environments. Due to the availability of mobile technologies, students can access learning materials without being bound by time and place. On the grounds that these applications allow information exchange, time and space limitations such as classrooms or school bells have been eliminated. Therefore, this study aims to assess mobile-assisted seamless learning environments' effects on students' success and motivation in the secondary school 7th grade mathematics class algebra unit and student opinions about the application. The research is designed using the descriptive pattern of mixed-method research. The sample of the study is 73 middle school students (30 male and 43 female) in Turkey. Augmented Reality (AR) applications developed in teaching algebra to support individual learning and to utilize mobile technologies, WhatsApp groups were created. Algebra Achievement Test (AAT), Mathematics Motivation Scale (MMS), and semi-structured interview forms were used as data collection tools in the research. The results of the study showed that there were statistically significant differences in favor of the experiment group in AAT and MMS scores. However, no significant difference was found between the groups in intrinsic goal orientation and test anxiety scores, which are motivation sub-dimensions. The findings obtained from AAT, MMS, and the students' opinions showed that mobile technology applications used in out-of-school learning environments positively affect the learning process.


Two meta-analyses assessed whether the relations between reading and mathematics outcomes could be explained through overlapping skills (e.g., systems for word and fact retrieval) or domain-general influences (e.g., top-down attentional control). The first (378 studies, 1,282,796 participants) included weighted random-effects meta-regression models to explore and contrast the magnitudes of the links between different reading and mathematical competencies. The second (138 studies, 39,836 participants) used meta-analytic structural equation modeling to determine the influence of a domain-general factor, defined by intelligence, executive functioning, working and short-term memory, and processing speed measures, on the link between reading and mathematics outcomes. The overall relation was significant (r=0.52), as were all associations between specific reading and mathematics measures (rs = 0.23 to 0.61, ps<.05). Most of the correlations were similar across different types of reading and mathematics competencies, although generally smaller than within-domain correlations. The domain-general model explained most of the covariance between reading and mathematics outcomes, with a few modest moderating effects (e.g., age). The results imply correlations between reading and mathematics measures are largely due to domain-general processes, although within-domain correlations confirm the importance of overlapping competencies especially for reading.

Across continental Europe, educational research samples are often divided by ‘migrant background’, a binary variable criticized for masking participant heterogeneity and reinforcing exclusionary norms of belonging. This study endorses more meaningful, representative, and precise research by offering four guiding questions for selecting relevant, social justice oriented, and feasible social categories for collecting and analysing data in psychological and educational research. Using a preregistered empirical example, we first compare selected social categories (‘migrant background’, family heritage, religion, citizenship, cultural identification, and generation status) in their potential to reveal participant heterogeneity. Second, we investigate differences in means and relations between variables (discrimination experiences, perceived societal Islamophobia, and national identity) and academic motivation among 1335 adolescents in Germany (48% female, Mage = 14.69). Regression analyses and multigroup SEM revealed differential experiences with and implications of discrimination for academic motivation. Results highlight the need for a deliberate, transparent use of social categories to make discrimination visible and centre participants’ subjective experiences.


Due to the impact of COVID-19, children and their parents are spending more time at home, which increases parent–child interactions. The goals of the present study were to examine the mediating effects of children’s learning engagement on the relationships of parental involvement in Chinese, English, and math performance and to investigate whether parent-perceived parental involvement and child-perceived parental involvement consistently affected children’s academic performance. Data were collected from 253 Chinese primary school students (117 boys, Mage = 10.53) during the COVID-19 pandemic. We included parental involvement perceived by the parents and by the children to comprehensively describe parental involvement (in wave 2); we collected children’s learning engagement (wave 2); and we compared children’s Chinese, English and math academic performances before (wave 1) and after (wave 3) China’s first wave of COVID-19 in 2020. The results showed that after controlling for gender, age, and SES, the parental involvement perceived by parents could be directly and positively related to children’s learning engagement, and it also indirectly influenced children’s learning engagement through the children’s perceived parental involvement. Learning engagement was a mediator of the relationship between parental involvement and children’s academic performance. Parental involvement significantly predicted children’s Chinese and English performances through their learning engagement, while parental involvement failed to predict children’s mathematics performances during the COVID-19 pandemic. The current research provides insights into the underlying mechanisms of how parental involvement affects children’s academic performances during school closures and hopes to guide parents and schools to consider how to cooperate and continue to use rapidly developing digital education resources amid the long-term impact of COVID-19 to provide children using more effective and suitable guidance in the future.

Nowadays, differentiated instruction (DI) has become a widely discussed topic in many schools and educational institutes. However, whilst the notion of DI is not new, studies on the effectiveness of DI with respect to student outcomes remain relatively unclear. This may be due partly to the operationalization of DI as well as the narrow focus of many studies on academic performance, thus neglecting other pertinent student outcomes. To address this, the current study aims to examine the impact of a specific DI strategy, namely differentiating according to readiness level and student interest, on intrinsic motivation and perceived competence. Two classes of Primary Six (Year 6 equivalent) students participated in the study, of which one class was pre-classified as high readiness, whilst the other class was pre-classified as low readiness. The research design followed a quasi-experimental single group pre–post-test design and took place in English language classes over a period of five lessons. Results indicated that there was an increase in the level of students’ intrinsic motivation and perceived competence in both classes. However, there were no differences in the impact between students with high and low readiness levels. This study demonstrates the effectiveness of a specific DI strategy on intrinsic motivation and perceived competence.


Based on 33 Chinese preschool teachers’ emotional experience, this study developed a taxonomy to specify the functional roles of emotions in Chinese preschool teachers’ identity construction. The analysis shows that emotions played three major functions, including a barometer of identity affirmation and disaffirmation, a pedagogic strategy to display situated identities, and a mediator of identity commitment. The findings also reveal individual differences in the fulfillment of these functions during emotional construction of professional identities. Such differences highlighted the importance of teacher beliefs in being a preschool teacher and teacher self-reflection on the interactive nature of emotions in identity construction.


Coding games are widely used to teach computational thinking (CT). Studies have broadly investigated the role of coding games in supporting CT learning in formal classroom contexts, but there has been limited exploration of their use in informal home-based settings. This study investigated the factors that motivated students to use a coding game called Coding Galaxy in a home-based setting. It explored the connections between the students’ perceptions of and usage of the tool. An 11-day intervention was conducted at a primary school in Hong Kong with 104 participants. The students’ perceptions of the game were collected via questionnaires and information on their use of the tool was extracted from log files. Results indicated that coding motivation and feeling of enjoyment were predictors of the actual use of the game, with coding motivation the dominant factor. Focus group interviews were also conducted to further explore the students’ motivation to play the game. Through comparisons of active and inactive users, the qualitative findings supported the quantitative results, indicating that students who were more intrinsically motivated tended to be more active in using the
Today, the socio-anthropology of education and comparative education constitute an emerging disciplinary field that allows us to understand and interpret more objectively not only local forms of kinship, caring and socialisation but also, and above all, the relationship that certain human groups have with knowledge and the different possible conceptions associated with the notion of education. The research carried out in recent years has enabled us to learn about the organisational models that govern local family and community structures, to understand the mechanisms that give them a certain pedagogical validity and, finally, to understand that each human group uses cultural transmission strategies shaped by the (natural and socio-cultural) context. This scientific production has highlighted the different roles played by parents, families, teachers and communities, contributing to the understanding of this typically human experience that is education. The socio-anthropological approach to educational issues, unlike the cognitive one, has been primarily concerned with comparisons and comparisons, in order to systematically describe and analyse the strategies through which, in the different cultures and subcultures that make up our global village, networks, groups and social institutions pursue the universal goal of educating the members of their communities. The methods at our disposal - ethnography, systematic observation or enquiry, for example - facilitate «contamination» between disciplines, allow us to access both formal educational contexts (teaching and the everyday life of the school community) and informal ones (the transmission of ethical norms, socialisation, language learning, games, intergenerational relations and even household chores) and, above all, allow us to overcome the sterile opposition between qualitative and quantitative methods. In a world that has become multidimensional, in which institutional systems and forms of social organisation at local, national, and supranational levels are juxtaposed, it has become difficult to find common criteria. The coexistence of people with specific needs and from different cultural backgrounds in the same educational environments represents another challenge to the dogmatisms -often implicit- that guide educational action (in the family, at school, or in other spheres) and that every culture tends to assume as absolute and universal. In a planetary context in which walls and barriers seem to rise as normality, the point of view proposed by the socio-anthropology of education therefore has the considerable advantage (but also the responsibility) of confronting us with diversity, with the ethnographic elsewhere, with the margins of our humanity. This special issue of the Italian Journal of Health Education, Sport and Inclusive Didactics brings together thirteen contributions based on this perspective, following disciplinary or transdisciplinary approaches, and offering to our readers the widest and most up-to-date panorama of research. The articles we selected critically discuss a series of fundamental issues: 1. The role of the research terrain (understood as a geographical context, as a human and natural ecosystem or as interactive dynamics); 2. The validity of socio-anthropological research methods for studying educational dynamics; 3. The epistemological reflections inherent to the possibility of proposing didactic solutions that are contextualised, inclusive
and capable of considering our humanity in all its diversity. We are confident that, in this post-pandemic era (so charged with tensions and critical conditions) a more human-centred approach to educational issues would offer food for thoughts (and for action) and that our readers will appreciate our willingness to show, with some optimism, that another world is possible.


Although the positive relationship between social determinants and college attainment is well established, less is known about how social class specifically relates to the linear and timely completion of postsecondary degrees. In this paper, we empirically examine on-time completion of bachelor’s degrees using social class proxies for a national sample of U.S. high school graduates, using the life course perspective and social selection hypothesis to contextualize social effects on the two key transitions—timely full-time enrollment and timely degree completion—that bound the traditional 4-year college pathway. We find strongly positive associations between several social indicators and attainment of both transition events, although effects are larger and more numerous for the initial transition, indicating social selection may be more influential in launching the 4-year college pathway than in completing it. Gradients of social advantage also appear more complexly gendered and racialized at the start of the college pathway than at the end. Finally, we confirm that parenthood is highly incompatible with a 4-year path to a degree regardless of social class and conspicuously more likely to interfere with the timely completion of a bachelor’s degree than other major life transitions.


Over the last two decades, undergraduate university education in England moved from being state-funded and free for students, to costing all students substantial amounts in tuition fees. In this paper, using detailed administrative longitudinal microdata that follow all students attending state schools in England (approximately 95% of student population), we causally show that, despite the substantial reforms, enrollment fell only by 0.5 percentage points, where the effect is largely borne by those in wealthier groups, reducing the enrolment gap across socio-economic groups. Since tuition fees were introduced in conjunction with the government offering generous means-tested maintenance (cash) grants, as well as loans, our results highlight the importance of reducing financing constraints. Beyond enrollment, we find that the reforms have limited impact on students’ higher education choices, such as relocation decisions, university choice, and field of study. Finally, by tracking the students after graduation, we show similarly small effects on labor market outcomes.

L’appréciation de la mobilité sociale et de l’ouverture des élites en France se concentre habituellement sur l’accès des élèves de milieux populaires aux concours des grandes écoles les plus prestigieuses – et ce d’un point de vue politique et scientifique. On tend ainsi à négliger combien les inégalités se reconstituent une fois franchies les portes de ces établissements prestigieux. En analysant les devenirs professionnels des diplômé·es du supérieur français né·es entre 1918 et 1972 à partir de l’exploitation de la série des enquêtes Emploi de l’INSEE, nous proposons de nuancer l’idée selon laquelle l’accès aux grandes écoles serait la « voie royale » pour atteindre les positions supérieures de l’espace social français. Les analyses menées ici nous amènent à montrer combien la fonction publique a pu représenter un refuge pour les ancien·nes élèves de très grandes écoles issu·es de milieux populaires – et combien l’appétence pour le privé chez les ancien·nes élèves de grandes écoles est davantage le fait des élèves les mieux dotés socialement. Ce faisant, elles pointent l’heuristique du croisement entre deux champs sociologiques qui s’ignorent trop souvent encore : la sociologie de la mobilité sociale et la sociologie des élites.


Sorting students on the basis of their academic performance into hierarchically ordered curriculums (i.e., between-school tracking) is common practice in various educational systems. International studies show that this form of tracking is associated with increased educational inequalities. As track placement is often based on teacher recommendations, biased track recommendations may contribute to this inequality. To shed light on the role that teachers play in the reproduction of inequalities in school, we conducted a systematic review of 27 recent articles on teachers’ between-school tracking recommendations and students’ socio-economic or ethnic background. We find that teacher recommendations are biased against students from disadvantaged socio-economic backgrounds, yet evidence with respect to ethnic biases is more mixed. While student, parent, teacher, and contextual factors seem to play a role in tracking recommendations, they cannot account for the biases in tracking recommendations. We discuss promising areas for future studies and argue that research on institutional moderators may have more potential than research on psychological mediators to effectively reduce bias in educational institutions.


The well-being and mental health of principals is being threatened by changing working conditions such as a broader variety of roles and tasks. In this article, we argue that social capital might buffer against declining (mental) health. The purpose of this study was to investigate the potential influence of social capital, including both internal (bonding) and external (bridging and linking) social capital, on principals’ well-being. A longitudinal study was set up across three waves of data. Questionnaires were collected from 2084 Australian principals and 829 Irish principals, across six and two timepoints, respectively. The hypotheses were tested using a longitudinal path model approach using maximum
likelihood estimation in lavaan for R. In line with our hypotheses, the results indicated that principals who reported higher levels of either internal or external social capital also reported higher levels of well-being. More specifically, support from colleagues outside the school and supervisor support (external social capital) and collaboration and trust in management (internal social capital) predicted well-being positively across time. The results of this study highlight the importance of having social support from colleagues and supervisors and possibilities for collaboration to maintain well-being as a school principal.

Une étude commandée par le ministère de l'Éducation nationale démontre que les loisirs pratiqués par les jeunes collégiens de 13-14 ans sont fortement différenciés en fonction de la catégorie socioprofessionnelle des parents mais aussi de leurs revenus mensuels ou de leurs niveaux de diplômes. L'étude distingue six catégories de collégiens selon leur façon d'organiser leur temps libre.

Les origines sociales influencent-elles encore plus qu’on ne l’imagine les chances d’intégrer une grande école? Quelques résultats de recherche alors que s’ouvre Parcoursup.

We conducted an experiment in low-income schools in Chile to test the effects and behavioral changes triggered by a program that sends attendance, grade, and classroom behavior information to parents via weekly and monthly text messages. Our 18-month intervention raised average math GPA by 0.08 of a standard deviation and increased the share of students satisfying attendance requirements for grade promotion by 4.5 percentage points. Treatment effects were larger for students at higher risk of later grade retention and dropout. Leveraging existing school inputs for a light-touch, cost-effective, and scalable information intervention can improve education outcomes in lower-income settings.

Recent research documents a causal impact of place on the long-run outcomes of children. However, little is known about which neighborhood characteristics are most important, and at what scale neighborhood effects operate. By using the random assignment of public housing along with administrative data from Denmark, we get inside...
the “black box” of neighborhood effects by defining neighborhoods using various characteristics and scales. Results indicate effects on mental health and especially education are large but local, while effects on drug possession operate on a much broader scale. Additionally, unemployment and education are better predictors of outcomes than neighborhood income.


This chapter provides new evidence on educational inequality and reviews the literature on the causes and consequences of unequal education. We document large achievement gaps between children from different socioeconomic backgrounds, show how patterns of educational inequality vary across countries, time, and generations, and establish a link between educational inequality and social mobility. We interpret this evidence from the perspective of economic models of skill acquisition and investment in human capital. The models account for different channels underlying unequal education and highlight how endogenous responses in parents’ and children's educational investments generate a close link between economic inequality and educational inequality. Given concerns over the extended school closures during the COVID-19 pandemic, we also summarize early evidence on the impact of the pandemic on children’s education and on possible long-run repercussions for educational inequality.


This study examines the gendered effects of early and sustained exposure to high-performing peers on female educational trajectories. Exploiting random allocation to classrooms within middle schools, we measure the effect of male and female high performers on girls' high school placement outcomes. We disentangle two channels through which peers of either sex can play a role: academic performance and school preferences. We also focus on the effects of peers along the distribution of baseline academic performance. Exposure to good peers of either sex reduces the degree to which high-achieving girls seek placement in more-selective schools. High-achieving boys have particularly strong, negative effects on high-performing girls’ admission scores and preferences for more-selective schools. By contrast, high-achieving girls improve low-performing girls’ placement outcomes, but exclusively through a positive effect on exam scores.


The present study, based on data concerning 2328 immigrant children attending a representative sample of 561 schools, investigates the impact of various group, family and individual characteristics as well as proficiency in the national language on acceptance and friendship among classmates, while controlling for measurement errors.
by means of a structural equation modelling approach. As regards group characteristics, the results indicate that only immigrant density in the classroom has a positive impact on social inclusion, which seems to be limited to peer acceptance. As regards family and individual characteristics, low-SES and female immigrants appear to be doubly vulnerable in class, which specifically affects their friendships. One of our main findings is that proficiency in the national language predicts the social inclusion of immigrant children, while controlling for all the other variables considered. A moderation analysis reveals that this factor also applies to second-generation immigrants. In conclusion, we suggest that interventions aiming to facilitate the social inclusion of immigrant children should take into account the fact that proficiency in the national language appears to be much more important than group, family and individual characteristics, and that low-SES and female immigrants require particular attention, since they are doubly vulnerable.


Les schémas de masculinité qu’incorporent les jeunes garçons au sein des multiples sphères de socialisation, et au cours de leurs dix premières années d’existence, donnent lieu à des niveaux de pluralité contrastés. Selon le nombre et la variété de ces contextes de socialisation, certains d’entre eux sont porteurs d’une pluralité dispositionnelle importante quand d’autres n’ont intériorisé qu’un nombre restreint de schémas de masculinité. A travers l’étude des masculinités plurielles de quinze collégiens en classe de sixième, dans le cadre d’une enquête en immersion dans deux collèges, l’étude s’appuie sur le postulat suivant lequel toutes les pluralités ne sont pas équivalentes et vise à traiter deux enjeux théoriques : 1 - Examiner les différentes formes de pluralités dispositionnelles en s’appuyant sur les expériences de socialisation décrites à travers une série d’indicateurs abordés en entretien (principes éducatifs et définition des rôles de genre au sein de la famille, rapport à la temporalité, pratiques sportives et culturelles, vacances et pratiques touristiques, etc.) et lors d’observations réalisées au cours d’une année scolaire complète dans différents contextes intra-scolaires (salle de classe, cours d’EPS, récréation, cantine, périphérie du collège, bibliothèque, couloirs). 2 - Comprendre comment la pluralité façonnée au cours du processus de socialisation s’actualise et “prend vie” dans les configurations intra-scolaires. L’analyse porte ici sur les variations dispositionnelles. Deux résultats généraux s’en dégagent. Le premier permet de mettre en évidence que les types de pluralité dispositionnelle ne donnent pas lieu aux mêmes dynamiques de variations de masculinité entre les configurations. Le deuxième résultat porte sur les ressorts de ces variations. Malgré la singularité de chaque portrait individuel, des récurrences apparaissent quant aux éléments déclenchant des variations de masculinité. Nous interrogeons à ce titre le rôle des enseignant.es en montrant qu’elles et ils peuvent être à l’origine de variations de masculinité favorables ou non aux apprentissages.


La modification annoncée de la procédure de recrutement des deux prestigieux lycées de la capitale est accusée par ses opposants de « briser l’excellence » et de faire le jeu du privé. L’analyse des données de l’académie de Paris va à l’encontre de ces arguments.

There is today ample evidence that academic achievement depends on individual disparities in socioeconomic status (SES), working memory (WM) and academic self-concept (ASC). However, because these factors were investigated intensively but in separate fields of research in the past four to six decades, their relationships remain largely unknown. The present study investigated whether SES, WM and ASC interact with each other or represent independent contributions to academic achievement in 2379 adolescents in middle and high schools. The findings confirmed previous results showing that students with lower SES, lower WM and lower ASC perform less well on academic tests. Above all, they revealed subtle patterns of mediating processes. Specifically, individual differences in WM processing, and to a lesser extent in ASC, accounted for most part of the negative impact of low SES on academic achievement. These findings indicate that being a member of disadvantaged groups impair both WM processing and ASC and provide a clearer picture of the complex involvements of socioeconomic, cognitive and self-perception factors in academic achievement.


The authors present a systematic review of elementary school universal school-based (USB) social and emotional learning (SEL) interventions from 2008 through 2020 for two groups of minoritized students in education research and practice: students with disabilities and/or minoritized racial identities. Completed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses standards, in this review the authors identified 269 studies for inclusion, which reflected 107 USB SEL interventions. Eleven studies explicitly excluded students with disabilities. Studies varied widely in how disability and racial identity were categorized within and across studies and provided limited evidence of effectiveness through the use of subgroup analyses to support meaningful assessment of how students with disabilities and racially minoritized elementary school age students are benefiting from USB SEL interventions. The authors discuss the limitations of findings, education research best practices, and the minimum reporting standards necessary to ensure ability and racially minoritized youth representation in future USB SEL research.


Raciolinguistic ideologies are sets of beliefs about language which frame racialised communities as displaying linguistic deficiencies which require remediation. These ideologies are tethered to European colonialism and white supremacist logics which have long been normalised and actively written into teacher education policy in England. In this article I argue that raciolinguistic ideologies are integral to the contemporary, state-crafted policy assemblage that pre-service teachers and teacher educators must navigate, including the Teachers’ Standards, the Core Content Framework and various documents produced by Ofsted, the schools inspectorate. I
argue that this policy assemblage represents a form of hostile governance which is attempting to derail and curtail anti-racist efforts. I show how raciolinguistic ideologies surface under guises of career advancement, pedagogical excellence, scientific objectivity, research validity and social justice. These guises operate to coerce pre-service teachers and teacher educators to reproduce raciolinguistic ideologies in their own practice, reduce professional agency and place responsibility on low-income and racialised communities to modify their language towards idealised whiteness. The article ends with some proposals for how teacher educators might find cracks in this oppressive system, in locating spaces for resistance which seek to undo harmful and colonial ideologies about language in the struggle against white supremacy.


There are a disproportionate number of teachers of colour (ToC) in Wales in comparison to pupils of colour. Teachers are less ethnically diverse than the pupils they are teaching with only 1.3% of teachers categorising themselves as being from a non-White background. This paper sets out findings from research investigating recruitment into Initial Teacher Education (ITE) and the career progression of ToC in Wales. Through a qualitative case study approach, employing participant voice, it gives participants a platform to articulate their experiences. Sixty-eight semi-structured interviews took place and participants were a mixture of 14+ learners and serving teachers/leaders, all from diverse backgrounds. As a multi-ethnic research team ourselves, we were aware of issues that participants faced within the Welsh school system, either as pupils or teachers, and were committed to carrying out the research, employing an empathetic lens. This was especially relevant as participants were relaying incidents of racism and racial trauma suffered, as well as sharing their achievements. This provided us with rich data, detailing lived experience and gave an insight into the unique experiences of teachers of colour, within a predominantly White school system in Wales and as a result, suggests what needs to change.


The transition from higher education to the labour market is considered an important and uncertain life stage wherein young adults exchange an academic environment for an often-chaotic entry into the labour market. Specifically, for graduates with a lower socioeconomic status (SES), this transition involves several difficulties. Investigating these persisting SES differences in the transition is becoming more relevant given the increasing participation of students from lower SES backgrounds in higher education. This systematic review studies SES differences in the transition by looking through the lens of resource acquisition. The results demonstrate that graduates from lower SES backgrounds have more difficulty finding suitable employment and often experience lower job quality. Moreover, our findings show that the strong interdependence between the importance of different forms of capital and the (implicit) symbolic value attached to these capitals makes it difficult for graduates from lower SES backgrounds to overcome barriers in the transition.

Police stops often perpetuate racial disparities in academic outcomes, yet few studies have examined factors that mitigate these negative consequences. Using two longitudinal studies (Study 1: n = 483, M-age = 12.88, 53% males; Study 2: n = 131, M-age = 15.11, 34% males), this article tests whether parental and school cultural socialization reduced the negative associations between police stops and youth’s school engagement. Results showed that youth with police encounters reported lower school engagement. Parental cultural socialization conferred protection in one study, while school cultural socialization was a protective factor in both studies. The implications of this work stand to benefit those working to reduce the negative links between policing and African American youth’s school engagement.


La filière, qui forme les professeurs d’éducation physique, des encadrants et des manœuvres sportifs, souffre d’un fort déséquilibre femmes-hommes. Si les acteurs de la filière déplorent cet état de fait, rien ne bouge.


The U@Uni Academy provides a case study of a composite preparation and access programme, integrating key elements of widening participation, alternate entry and enabling schemes. It is offered to students from a low socioeconomic background and focuses on non-traditional indicators of attainment in order to prepare for, access and successfully transition from secondary school to higher education. This article outlines the methodological and theoretical approach, purpose, and context surrounding the programme, as well as its significance within the contemporary Australian and international education systems. The strengthening momentum of alternate entry and enabling schemes within the context of equity and diversity in higher education is illuminated, highlighting the need for innovative approaches in this sector. Such a perspective invites the international education community to reframe how they approach attainment, admissions and success, shifting from a traditional focus on high-stakes, single-mark assessment, to a rich, layered and contextualised representation of a student’s skills and, through this, revealing the often invisible potential of a student. This is timely within the global context of future-focused tertiary education and debate surrounding admissions processes across the Australian higher education sector. Its significance is underscored by potential to influence the landscape of university admissions on a broader scale.

Falanga, K., Gonida, E., & Stamovlasis, D. (2023). *Predicting different types of parental involvement in children’s homework: the role of parent motivational beliefs and parent*
This study investigated motivational and affective processes behind qualitatively different parental involvement practices in children’s homework. Parent motivational beliefs (achievement goals, efficacy beliefs for their children, self-efficacy beliefs) were examined as predictors of parent autonomy support, control and interference, and parent positive and negative affect as mediators between motivational and behavioral parental variables. A total of 807 5th Grade children and one of their parents participated in the sample. Structural equation modeling was utilized for data analysis. The results showed that mastery goals predicted positively autonomy support and negatively interference, whereas performance goals predicted controlling practices positively. Parent beliefs of children’s efficacy predicted negatively all three parental involvement practices, and parent self-efficacy beliefs positively predicted autonomy support and control. Both positive and negative affect predicted control and interference positively and mediated the relationship between parents’ efficacy beliefs and controlling practices. The results indicate the importance of examining relationships among motivational, affective and behavioral parental variables toward a better understanding of parental homework involvement quality.


La lutte contre le changement climatique et l’amélioration de l’éducation des filles sont essentielles pour réduire la pauvreté, pour des économies prospères et résilientes, des sociétés pacifiques et stables. Les systèmes éducatifs doivent s’adapter en urgence à ces changements. Le document appelle à une nouvelle approche des gouvernements, des donateurs bi-/multilatéraux et privés et des organisations de la société civile pour faire face à ce changement dans et par l’éducation. Il donne un cadre d’actions prioritaires, notamment pour les pays à revenu faible et intermédiaire de la tranche inférieure, des connaissances, des compétences et des moyens d’action en matière de climat.


This article focuses on the impact of education as the most important human capital endowment in the context of migration, religion, gender and ethnic identity from a demographic perspective. It presents research-based evidence to address such key research questions as whether and how significantly women’s education provides equal benefit in the labour market for individuals, based on their migration status, religion, and ethnic identity. The field of this study is the multi-ethnic and multicultural context of Australia with a wide range of ethnic and religious groups of migrants from throughout the world. Preliminary results show that labour market achievement is positively and significantly associated with the educational attainment of individuals, irrespective of their migration status, religious affiliation and ethnicity. However, more comprehensive analysis from comparative perspectives reveals that the positive economic return of education is higher for natives (compared with migrants), for ethnic migrants from developed regions of origin (compared with those from less developed regions of origin).
and for non-Muslims (compared with Muslims). The article provides two plausible explanations for these patterns. The first refers to the lack of recognition of overseas qualifications and to the devaluation of foreign education that particularly applies to ethnic migrants from less developed regions. The second relates to disadvantage through structural discrimination against migrants, particularly when their cultural and religious identity, such as Islamic names and dress codes, are distinctively displayed. In sum, this analysis presents further research-based evidence to go beyond the human capital theory in order to explain more appropriately the economic return of women’s education in the context of religion and migration from a demographic perspective.


The impact of colonisation, cognitive imperialism, and Eurocentric modes of knowing, being and doing has had an effect on Higher Education, including teacher education. Colonial epistemologies, epistemicide, academic dependency, disempowerment and intellectual inferiority are challenged by liberatory pedagogies that present opportunities to reconceptualise ontological and epistemic foundations to inform antiracist practice and decolonial praxis. However, prevailing teacher education policies of standardisation in England raise difficult obstacles against decolonial and anti-racist practices. By acknowledging the existence of institutionalised forms of coloniality, which includes the reproduction of colonial-modernist-western modes of thinking and doing, a re-imagined decolonial reality can be envisioned. We argue that this process can engender humanising, antiracist, and epistemically liberating pedagogies within teacher education, which can encourage the co-existence of a diverse plurality of forms of knowing, being and doing. Through conversational semi-structured interviews with nine teacher educators, enriched by a critical analytic ethnographic study, the findings suggest perceptible evidence of teacher educators’ growing curiosity and commitment to exposing ITE’s complicity in the reproduction and sustenance of the logics of coloniality of knowledge and relational inequities.


Cuestión prioritaria para las políticas públicas nacionales y europeas, los jóvenes que no trabajan, no estudian ni reciben formación (NEET) corren un riesgo de exclusión más o menos importante según los países. Si bien el nivel de educación desempeña un papel central en estas situaciones, el enfoque de las competencias básicas permite afinar la mirada. En efecto, los datos internacionales muestran que el mismo nivel de diploma no certifica el mismo nivel de competencias en todas partes. ¿Cómo se explican estas diferencias? ¿Hasta qué punto estas competencias protegen contra las situaciones de NEET independientemente del título?

When it comes to biology lessons in Germany, girls generally exhibit higher levels of self-determined motivation than boys. Previous research suggests that fostering student autonomy could be a way to effectively address this gender gap. To investigate gender-related effects in biology education, a sample of 303 sixth-grade students (Mage = 11.31 years, SDage = 0.58 years) participated in a 3-h teaching unit on harvest mice that was taught in either an autonomy-supportive or controlling manner. The results revealed a significant effect of the treatment on self-determined motivation, with the effect being stronger for the boys. In the treatment with controlling teaching behavior, gender-related differences in self-determined motivation became apparent. In contrast, the gender gap was mainly smaller in the treatment with autonomy-supportive teaching behavior. Thus, the results suggest that satisfying the need for autonomy appears to be an effective means to help bridge the gender gap in biology lessons.


Les technologies numériques peuvent jouer et ont joué un rôle clé dans l’atténuation des effets économiques de la crise. Quatre cents millions de femmes dans les pays à revenu faible et intermédiaire (PRFI) ne sont pas connectées. La pandémie de COVID-19 a exacerbé la fracture numérique entre les sexes. Cette inégalité est exacerbée dans les communautés en situation fragilité, de conflit et de violence (FCV). La Banque mondiale, en partenariat avec la Coalition mondiale EQUALS et GSMA (Global system for mobile communications) a piloté la mise en œuvre de programmes axés sur l’acquisition de compétences numériques en Ouganda, au Nigeria et au Rwanda. Ce rapport met en évidence l’approche unique adoptée dans chaque pays et fournit des recommandations pratiques pour la conception et la mise en œuvre de programmes de formation aux compétences numériques visant à combler la fracture numérique entre les sexes.


This article provides a Bourdieusian analysis of middle-class parents’ investment in private schooling and shadow education (tutoring support) in India, thus contributes to the scholarship of class-based educational advantage. It unveils parents’ aspirations for their children’s education and investigates how these aspirations shape the demand for private education. Bringing into sharp focus the complexity of social privilege, this article discusses how middle-class parents’ articulation of their lack of valued cultural capital informs their decision to invest in private schools. However, parents’ views on their ineffective involvement in their children’s education produce a perceived home disadvantage, which parents compensate for by investing in tutoring services. The article argues that investing in private education – both in formal educational institutions and tutoring centres – is a case of ‘capital exchange’ (transfer of economic capital to secure
cultural capital) exercised by privileged social groups to ‘purchase’ valuable educational resources, thus reproducing their social class position.


Studies regarding school composition have been highly influential in the design of policies. However, methodological and conceptual controversies have hindered the emergence of a consensus on the existence, size, and direction of peer effects. Drawing on four cohorts of Chilean students (n = 620,044), this work analyses the extent to which the socioeconomic and academic classmates’ characteristics are associated with student attainment. The findings suggest a positive medium- to low-magnitude effect of increases in the peers’ academic performance. At the same time, there are almost no effects associated with changes in the classmates’ socioeconomic status. These findings are stable across school types and are not driven by the sorting of students within them. The results are interpreted in the context of a new nationwide reform aiming to foster school integration and taking advantage of peer effects interaction.


S’appuyant sur les données les plus récentes du programme international pour le suivi des acquis des élèves (PISA), cette étude analyse les facteurs les plus fortement liés à la probabilité de quitter prématurément l’éducation et la formation. Elle accorde une attention particulière au statut des migrants, compte tenu des récentes vagues de migration à l’intérieur et à l’extérieur de l’Europe. Les résultats montrent que les élèves migrants ne diffèrent pas structurellement des natifs de l’Union européenne dans leur probabilité de décrochage anticipé, ce qui implique de se concentrer sur des facteurs communs.


Teacher preparation programs are vital to facilitating the development of teacher candidates who have the knowledge, skills, and dispositions that align with a social justice approach to teaching. However, enacting teacher preparation for social justice will necessitate teacher educators with sophisticated expertise. To gain insight into this enactment, we engaged in a qualitative metasynthesis of teacher educator self-studies about teacher preparation for social justice. Teacher educator self-studies serve as a context for teacher educators to study and problematize their practice while also contributing to the larger teacher education literature base. The qualitative metasynthesis examined 65 teacher educator self-studies from 1992 to 2021 across journal articles, books, and conference proceedings. The analysis and synthesis of the teacher educator self-studies resulted in naming three components necessary for facilitating teacher candidate social justice learning within the context of teacher preparation: 1) Centralizing the Lens of Identity, 2) Classroom Environment Conducive to Social Justice Learning, and 3) Pedagogical Practices to Promote Critical Consciousness and Praxis. Within each of these components are high-leverage practices and routines of practice that can be utilized to enact that component. Taken together, the findings
result in a framework for a pedagogy of teacher education for social justice rather than focusing solely on what teacher candidates need to know and be able to do. The findings have implications for teacher educator professional learning, program design, and future approaches to research.


Si dans toutes les sociétés la figure de l’ancien est une composante de la structure sociale, qu’en est-il aujourd’hui dans le champ des pratiques et des établissements qui œuvrent dans le social, le médico-social et le soin ? Explorer l’idée d’« ancien » dans la diversité des sens, en repérer les fondements dans les structures sociales donnera les contours sémantiques pour éclairer la thématique de ce numéro. Au fil de paroles et récits d’anciens – anciens enfants/adolescents –, se profilera en quoi, dans la chaîne des connaissances et des savoirs, les anciens sont, peut-être, maillons de transmission. Si la place des usagers des dispositifs est inscrite dans la loi et fait partie intégrante des projets, de nouvelles formes s’expérimentent. Elles relèvent le défi d’inscrire les savoirs d’expérience vécue dans la mise en œuvre des projets. Dans quelques placards et recoins reposent des dossiers, archives où se côtoient traces de mots, récits de professionnels et d’« usagers », dessins et photos. De temps en temps, un enfant, un adolescent, un adulte, en quelque occasion, demande à rouvrir cet espace de mémoire. Quelle place y ont ces acteurs, que représentent les anciens dans les centres de formation, qui sont par essence des lieux de transmission ?


Using a comparative case study, this paper explores the pedagogic practices for regulating behaviour in two Norwegian primary school classrooms with social compositions that become increasingly contrasted due to an increasing school segregation. Based on classroom observations and teacher interviews and using Bernstein’s concepts of ‘framing’ and ‘classification’, the study has found that working-class students are subjected to a more visible pedagogic practice than middle-class students. The different behavioural expectations in the classrooms shape a passive and receptive learner identity in the former case and a more active learner identity in the latter case. Social class assumptions and neoliberal education policy may underlie the formation of these distinct identities. This paper argues that in an education system that advocates equal opportunities for everyone as the most important value, it is crucial to consider whether visible pedagogic practices promoted through evidence-based programmes rather contribute to reproduction of existing social inequality.


Many youth experience declines in psychosocial well-being during the transition from high school to postsecondary. Hypothesizing that extracurricular activity involvement in high school functions as a resource factor, the current study examines type and breadth as predictors of psychosocial well-being one year postsecondary. The sample (N = 4070)
consisted of students from diverse ethnic-racial and socio-economic status backgrounds (30% Latinx; 60% had a parent without a college degree; 47% cisgender female). Eleventh grade involvement in sports was linked with lower loneliness, social anxiety, and depressive symptoms, and higher self-worth, whereas special interest clubs were associated with lower social anxiety and depressive symptoms. Examining breadth, one or two activities were linked with optimal psychosocial well-being. The results suggest that sports and special interest clubs, and up to two activity domains, are associated with optimal psychosocial well-being, providing recommendations for extracurricular programming and youth involvement.


The German Physics Olympiad is an extracurricular science contest for students. Here, they have the opportunity to compete against other talented students, can do physics outside of school, and take a first step to more engagement in the domain. Yet, female students participate in the competition in fewer numbers and are disproportionately more likely to drop out of the contest earlier than the male students.


In the past two decades, we have seen a renewed interest in decolonisation. A proliferation of literature produced on the topic, the establishment of journals on decolonisation, student protests such as the #RhodesMustFall campaign at universities in South Africa and Oxford University in Britain, French President Emmanuel Macron’s call for the repatriation of African heritage from European museums, the appointment of a Deputy Minister of Decolonisation in Bolivia, bear testimony to a heightened consciousness on the topic. Moreover, we are witnessing the internationalisation of Indigenous knowledge as colonised peoples across the globe use the spaces that globalisation affords to build solidarities in order to resist the homogenising and normalising effects of globalisation and to decentre western epistemologies. In this article, which contributes to the Special Issue on Decolonial and Anti-racist Perceptions in Teacher Training and Education Curricula, I do three things: discuss the concept of decolonisation including its meanings produced in different geographies, discuss the connection between decolonisation and anti-racism, present challenges and opportunities for decolonising (teacher) education programmes through the concepts of currere, complicated conversation and land education. I conclude that decolonisation is not an easy task in the neoliberal university and other institutions offering initial teacher training/education. However, there always exists opportunities for invigorating decolonial desires in such teaching/learning spaces.

Le site d’inscription dans l’enseignement supérieur ouvre mercredi 18 janvier. S’il offre un large accès à l’information pour tous, les élèves sont loin d’être sur un pied d’égalité.


Teachers’ evaluations of students do not consider only academic competence, but are imbued with social considerations related to individual teacher and student characteristics, their interactions, and the surrounding context. The aim of this paper is understanding the extent to which teachers grade girls more generously than boys, and which characteristics of teachers and classrooms are likely to reduce this gender grading gap. We use Italian data from INVALSI-SNV, providing information on 10th-grade students linked with their teachers. The analysis relies on grade equation models in multilevel regression analysis, with students as first level, teachers/classrooms as second level, and schools as third level. Results show that, when comparing students who have identical subject-specific competence, teachers are more likely to give higher grades to girls. Furthermore, they demonstrate for the first time that this grading premium favouring girls is systemic, as teacher and classroom characteristics play a negligible role in reducing it.


The purpose of this study was to analyze the longitudinal causal relationship between gender role attitudes and the labor market participation of young women in Korea. This study used the data of 902 young women from the 2nd to the 7th waves of the Korean Longitudinal Survey of Women and Families. The methods used were the autoregressive cross-lagged model and multivariate latent growth. Women’s participation in the labor market promoted equal gender role attitudes, and the effect had a lasting impact into the future. On the other hand, the fact that women had an equal gender role attitude did not have a significant effect on their subsequent labor market participation. In addition, the experience of pregnancy reduced women’s participation in the labor market, demonstrating women’s career interruption. Through the results of the study, the necessity of an active employment policy to promote women’s entry into the labor market and prevent career interruption was emphasized.


Using longitudinal data from the Italian National Institute for the Evaluation of the Education System (INVALSI), this paper investigates whether the ability of classmates affects the educational attainment of immigrant students. We focus not only on the average quality of peers in the class, but we further investigate which part of the ability distribution of peers drives the effect, by assessing the role played by the extreme tails of the ability distribution. Our empirical strategy addresses students’s endogenous sorting into classes by exploiting the within-student across-subjects variation in achievements and the simultaneity problem by using predetermined measures of peers’s ability. We
show that peers’ ability matters. While native students are mostly influenced by the average quality of their peers, immigrant children are detrimentally affected by the fraction of very low achievers in the classroom. Our findings provide valuable guidance to policymakers concerning the allocation of students to classes in order to foster immigrant students’ integration and learning.


The public funding or even toleration of religious minority schools, particularly Muslim faith schools, is controversial in West European countries. Political theorists often posit that parents’ right to choose these schools conflicts with the equally or more important societal concerns with child autonomy and civic integration or education to liberal-democratic citizenship. Yet, few empirical studies have addressed the issue and findings are mixed. Using unique survey and administrative data on ninth grade pupils in Danish Muslim schools compared to Muslims in state schools, the study finds no indication of lower levels of civic integration in terms of national belonging, social trust and outgroup prejudice, or liberal democratic orientation, indeed Muslim schools seem to do a little better. Different explanations for this are possible, and the findings may not be generalizable to other national contexts, but they do cast some doubt on present political hostility towards the schools.

Contrairement au principe universaliste qu’il défend, l’enseignement supérieur est loin d’être épargné par les discriminations liées aux origines et manque de dispositifs pour les contrer.


When students are grouped into school tracks, this has lasting consequences for their learning and later careers. In Germany to date, some groups of students (boys, ethnic minority students) are underrepresented in the highest track. Stereotypes about these groups exist that entail negative expectations about their suitability for the highest track. Based on the shifting standards model, the present research examines if and how stereotypes influence tracking recommendations. According to this theory, members of negatively stereotyped groups will be judged more leniently or more strictly depending on the framing of the judgment situation (by inducing minimum or confirmatory standards). N = 280 teacher students participated in a vignette study in which they had to choose the amount of positive evidence for suitability they wanted to see before deciding to recommend a fictitious student to the highest track. A 2 (judgment standard: minimum vs. confirmatory) × 2 (target student’s gender: male vs. female) × 2 (target student’s ethnicity: no migration background vs. Turkish migration background)
between-subjects design was used. No effects of target gender occurred, but the expected interaction of target’s ethnicity and judgment standard emerged. In the minimum standard condition, less evidence was required for the ethnic minority student to be recommended for the highest track compared to the majority student. In the confirmatory standards condition, however, participants tended to require less evidence for the ethnic majority student. Our experiment underlines the importance of the framing of the recommendation situation, resulting in a more lenient or stricter assessment of negatively stereotyped groups.


This paper formulates a simple skill and education model to explain how better access to higher education leads to stronger assortative mating on skills of parents and more polarized skill and earnings distributions of children. Swedish data show that in the second half of the 20th century more skilled students increasingly enrolled in college and ended up with more skilled partners and more skilled children. Exploiting college expansions, we find that better college access increases both skill sorting in couples and skill and earnings inequality among their children. All findings support the notion that rising earnings inequality is, at least in part, supply driven by rising skill inequality.

Le niveau de compréhension à l’écrit des élèves de 15 ans dépend fortement de leur milieu social. Année après année, la France figure parmi les pays où l’écart entre élèves très favorisés et très défavorisés est le plus grand.


Academic tutoring as a supplementary form of education has quickly spread across China. Tutoring has attracted young college-educated practitioners and has become a highly organized industry. The industry is fast-churning and opportunistic. This article examines the nature of tutors’ work using the qualitative data of 31 tutors and their managers in Beijing. Characteristics of tutoring are typical of precarious service labor with irregular work schedules, blurred work-life boundaries, and artificial emotional labor. However, we also found that tutors’ work was constrained by their invisible neighbor, schoolteachers, in a linked professional ecology. Tutors have limited jurisdiction over daily tasks and perform reactionary teaching based on school subjects. This lack of control has allowed the industry to rationalize their work, making tutors disposable. Our research offers new insights into the linked professions of tutors and schoolteachers. It enriches the concept of precarious and opportunistic labor practices from the sociology of professions perspective.
Le tissu social et éducatif est marqué par une pluralité dans les formes de socialisation, de culture, d'éducation, de langage, de modes d'être au monde et aux autres... L'autre, l'étranger, l'étrangéité sont omniprésents et font partie de l'environnement proche et du quotidien. L'école est devenue un lieu de confrontation symbolique entre les différentes normes.


This mixed methods study explored German (n = 477) and Finnish (n = 379) student teachers’ color-blind, multiculturalist, and polyculturalist diversity beliefs. Statistical analyses identified polyculturalism and multiculturalism as the most prominent diversity beliefs among the student teachers and detected associations between diversity belief profiles and student teachers’ orientations to teaching for diversity and social justice. Polyculturalism, in particular, emerged as significant predictor of student teachers' orientations to teaching for diversity and social justice. Qualitative analysis of responses to open-ended questions revealed that polyculturalism was internalized by the student teachers superficially. The implications of the findings for further research and teacher education are discussed.


Despite the fact that precarious modes of employment have become increasingly common in academic careers, studies have shown that precarious contracts are often hidden and masked within higher education structures. This has important implications for the identities of those on such contracts. This paper uses Goffman’s work on stigma, ‘spoiled identities’, and identity management, and Archer’s concepts of morphostasis and morphogenesis as heuristic devices to examine the ways in which precariously employed academic staff experience their work and think about their identities. In doing so, the paper maps out the complex relationship between structure, agency, and identity in precarious academic careers and the ways in which participants reproduced embedded career norms and dominant career scripts through the process of masking the stigma of their precarity.


This article examines how the likelihood of pursuing higher education abroad varies with social background and how such possible variations differ across educational fields. We use comprehensive Norwegian population data which allow for examining two dimensions of family background: parents’ education level and income. Our analytical sample comprises five cohorts of first-time students aged 19–24 years. We confirm previous findings that students who study abroad come from families with highly educated parents. Additionally, we find that students abroad have wealthier parents. Interestingly, the relationships between the likelihood of studying abroad and family...
background differ across educational fields. The probability of studying business and administration abroad increases with both parental income and parental education level, whereas it only increases with parental income for fine arts students. For medical students, family background does not correlate with the probability of studying abroad after controlling for grades from upper secondary.


Many institutions have found the strength to name racism and seek space for curriculum and other systemic changes. We argue this is happening against a backdrop of curriculum, regulatory and policy changes in education, and particularly initial teacher education and training (ITE/T), which are de-racialised. We propose that a ‘pocket of possibility’ lies within such divergences, and present research leading to the creation of an anti-racism framework for ITE/T to support action against this emergent landscape. The paper documents each aspect of the research and snapshots of the findings of a global literature review of anti-racism in initial teacher education, which demonstrated the need for an embedded approach to anti-racism, informed by critical understandings of whiteness and racism. We share some of the complexities, obstacles, and effective anti-racism practices revealed in the review. The findings of the review led to the creation and analysis of a survey for ITE/T providers in England, which provided encouraging evidence of useful practice alongside needs of the profession. We conclude with a statement of intent and hope to maximise of the minimum entitlement of the Core Content Framework (CCF) by a purposeful undoing of the perpetual de-racialisation of education.


Many Senior Leadership Teams (SLTs) are engaging in professional development to nurture explicitly anti-racist practice. Teachers’ knowledge gaps about racism, its traumatic, lasting impact and how racism is generated through schooling persist within a cloak of silence. This small-scale study explores interview data from senior leaders in English schools, questioning legacies of colour-evasion and breaking silences to understand the role ‘race’ plays in their schools, appearing exigent due to Black Lives Matter (BLM) movements and the inescapable reality of racism seen in George Floyd’s horrific murder. Using Critical Race Theory (CRT) and Critical Whiteness Studies (CWS) as theoretical tools, we explore negotiations and challenges of leading anti-racist work in systems favouring whiteness as the norm. Findings show senior leaders undertaking the Anti-Racist School Award (ARSA) and/or Race, Identity and School Leadership (RISL) programme are novice ‘race’ practitioners, despite their seniority, wrestling to recognise whiteness and to connect their own ‘race’(d) identities to role-enactment and policy. They must negotiate and make the case for anti-racist leadership to colleagues trained not to notice, and mitigate wider external systems operationalising whiteness, blocking the development of anti-racist practice. We examine resistances to anti-racist work in English school systems that (re)centre whiteness.


Inclusive education is affirmed in Icelandic laws and regulations although, at upper secondary school level, schools can apply to establish special programmes for students who have been labelled as disabled. The application process for these programs differs from the one in the mainstream regarding arrangement and time. In this article, special attention will be paid to the application process for Icelandic students with intellectual disabilities at upper secondary level. We use Alecia Jackson’s and Lisa Mazzei’s methodology of thinking with theory by ‘plugging’ Iris Marion Young’s philosophical concepts of oppression regarding social justice into the text, and vice versa. This approach reveals a discriminatory application process where cultural imperialism has the upper hand causing a denial of group differences. Students are being marginalised based on their support needs which can, among other things, result in systemic violence.


In school systems around the world, countless reform strategies have focused on school and teacher accountability—the process of evaluating schools’ performance on the basis of student measures. Policy and education research has been dominated by debates on its effectiveness, where advocates highlight the positive effects on achievement while critics emphasize the negative consequences on pressure, morale, and autonomy. Yet the question is not so much whether to have accountability, but what form it should take. To answer this, sociologists contribute through their study of accountability’s organizational and ecological dynamics—key facets that are sidelined when researchers only focus on quantitative program evaluation. An organizational perspective highlights the meaning-making school actors and the general public have of the policy, viewing it through technical-rationalist and institutional-performative lenses. An ecological perspective highlights how the form of accountability is a negotiated outcome of larger macrosocial forces, and how accountability is itself contributive to larger social changes. This review suggests a broader conceptualization of accountability regimes, and the unique contribution of critical, organizational, and sociological perspectives to the study of public policies.


Stéphane Vaquero interroge les effets des dispositifs par ateliers interdisciplinaires qui se développent depuis une vingtaine d’années au collège et au lycée, à l’image des Travaux personnels encadrés (TPE). Le recours aux thématiques concrètes et quotidiennes permet-il de réduire les inégalités scolaires et sociales ? L’ouvrage montre que les élèves et enseignants y forgent un type spécifique de discours sur le monde quotidien, sur les références populaire et juvéniles. Il démontre comment la mise en forme scolaire de l’éclectisme culturel ou de la parole critique peut, paradoxalement, nourrir les formes contemporaines de domination scolaire, culturelle et sociale.

Across continental Europe, educational research samples are often divided by ‘migrant background’, a binary variable criticized for masking participant heterogeneity and reinforcing exclusionary norms of belonging. This study endorses more meaningful, representative, and precise research by offering four guiding questions for selecting relevant, social justice oriented, and feasible social categories for collecting and analysing data in psychological and educational research. Using a preregistered empirical example, we first compare selected social categories (‘migrant background’, family heritage, religion, citizenship, cultural identification, and generation status) in their potential to reveal participant heterogeneity. Second, we investigate differences in means and relations between variables (discrimination experiences, perceived societal Islamophobia, and national identity) and academic motivation among 1335 adolescents in Germany (48% female, Mage = 14.69). Regression analyses and multigroup SEM revealed differential experiences with and implications of discrimination for academic motivation. Results highlight the need for a deliberate, transparent use of social categories to make discrimination visible and centre participants’ subjective experiences.


In June 2020, the world witnessed an upsurge in Black Lives Matter (BLM) demonstrations following the murder of George Floyd, an African American, by a White American police officer. The international response called for the global community to reassess the value of black lives blighted by racist social systems. The mass sentiment acted as a catalyst for educational institutions, including those in the UK, to mount a response. It is in this context that a School Partnership Group representing primary and secondary schools in East London embarked on developing a workshop series for the professional development of school leaders. The sessions were aimed at school transformation through anti-racist educational approaches. In this article, we present a discussion of the workshop series held in the academic year 2020–2021, which brought school leaders together in a reflective community of practice. Drawing on data from focus group conversations carried out following the end of the series, this paper argues for school leaders’ professional development that prioritises ‘deep understanding’ supported by reflective communities of practice as a pre-requisite for effective anti-racist practice and sustained school transformation.


Young Aboriginal and Torres Strait Islander or Indigenous Australians experience pervasive marginalisation. Indigenous youth leadership programmes are often positioned as a means of empowering such young people by encouraging and enabling their participation in their communities as well as, by extension, wider social and political contexts. This paper uses a social ecologies lens to highlight the inherent relationality of such programmes, drawing on the data emerging from the evaluation of one specific initiative. It suggests that local social ecologies play a key role in determining young people’s relationship to their communities and wider political processes, but it also raises the question of whether feeling empowered to participate or lead is the same as being
empowered. It highlights the ways in which educational efforts to foster Indigenous young people’s participation and leadership are informed and constituted by interrelated, interwoven and interdependent factors that include historical and contemporary racialisation and racism.


Due to the impact of COVID-19, children and their parents are spending more time at home, which increases parent–child interactions. The goals of the present study were to examine the mediating effects of children’s learning engagement on the relationships of parental involvement in Chinese, English, and math performance and to investigate whether parent-perceived parental involvement and child-perceived parental involvement consistently affected children’s academic performance. Data were collected from 253 Chinese primary school students (117 boys, Mage = 10.53) during the COVID-19 pandemic. We included parental involvement perceived by the parents and by the children to comprehensively describe parental involvement (in wave 2); we collected children’s learning engagement (wave 2); and we compared children’s Chinese, English and math academic performances before (wave 1) and after (wave 3) China’s first wave of COVID-19 in 2020. The results showed that after controlling for gender, age, and SES, the parental involvement perceived by parents could be directly and positively related to children’s learning engagement, and it also indirectly influenced children’s learning engagement through the children’s perceived parental involvement. Learning engagement was a mediator of the relationship between parental involvement and children’s academic performance. Parental involvement significantly predicted children’s Chinese and English performances through their learning engagement, while parental involvement failed to predict children’s mathematics performances during the COVID-19 pandemic. The current research provides insights into the underlying mechanisms of how parental involvement affects children’s academic performances during school closures and hopes to guide parents and schools to consider how to cooperate and continue to use rapidly developing digital education resources amid the long-term impact of COVID-19 to provide children using more effective and suitable guidance in the future.


Mothers and adolescents often perceive parenting differently, but it is unclear how different profiles of mother-adolescent perceived parenting and developmental transitions of such profiles would influence adolescent academic performance longitudinally. The current study adopted a three-wave dataset of 604 Mexican-origin adolescents (54% female; Mwave1.age = 12.92 years) and 595 mothers. Adolescents who agreed on high levels of positive parenting with their mothers in early adolescence (i.e., the Both High group) and stayed in the Both High group demonstrated the best academic performance in late adolescence. However, adolescents who changed from the Both High group in early adolescence and ended with discrepancies in perceived parenting or an agreement on low positive parenting with mothers in late adolescence had the worst academic performance. The findings suggest the plasticity of mother-
adolescent relationships during adolescence, which can be an intervention target to improve Mexican-origin adolescent academic performance.


Private schools have long played a crucial role in male elite formation but their importance to women's trajectories is less clear. In this paper, we explore the relationship between girls' private schools and elite recruitment in Britain over the past 120 years – drawing on the historical database of Who's Who, a unique catalogue of the elite. We find that alumni of elite girls schools have been around 20 times more likely than other women to reach elite positions. They are also more likely to follow particular channels of elite recruitment, via the universities of Oxford and Cambridge, private members clubs and elite spouses. Yet such schools have also consistently been less propulsive than their male-only counterparts. We argue this is rooted in the ambivalent aims of girls elite education, where there has been a longstanding tension between promoting academic achievement and upholding traditional processes of gendered social reproduction.


This paper tells a story of Israeli male high schoolers who spend their adolescent years preparing for service in elite military units in the Israeli Defense Force (IDF). They dream of serving in special units and begin training at 15 or 16 years old. After years of taxing preparations, at the age of 17 they arrive at the grueling military exams. They are at their peak – potent and energized, motivated, and in the best shape of their lives. Yet most high schoolers return from the examinations psychologically broken. Having imagined their future selves as virile commandos, they return humiliated for cowering during the tough assignments. The paper draws on interviews with 40 adults who failed the exams 10 to 15 years after the event. Using Bourdieu’s theory of symbolic violence, it shows that youthful failure at 17 continues to send debilitating messages for years after the event. Those who fail continually tell themselves that they are not worthy, not good enough, that they do not have enough character or strength. Consequently, they abandon possible life trajectories and possible selves. They surrender to the exam, and then remain prisoners of a cultural ethos they have failed to embody.

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way. (Charles Dickens, *A Tale of Two Cities*)


Against the backdrop of teaching being downplayed in higher education, this study unravels how the university faculty members’ implementation of teaching excellence is influenced by the interplay of objective structural conditionings and subjective internal deliberations, drawing upon Margaret Archer’s social realist framework and her distinction between human reflexive modalities. By exploring 21 faculty members from
three Chinese universities with different structural constraints and enablements, the study shows that dual modalities are manifest in all faculty members, among which meta-
reflexivity applies to everyone. However, autonomous reflexivity and communicative reflexivity play more dominant roles in generating purposeful actions under the same structure. Furthermore, some structural forces are non-negotiable constraints, and people having the same reflexivity modality may act differently under different structural conditionings. The study calls for universities to cater to both structural arrangements and reflexive deliberations to transform constraints into enablements for teaching excellence.


This study examines the classroom environment for students with disabilities in five pre-
primary classrooms in Nairobi, Kenya. Creating an analytical framework based on CLASS, a classroom observation tool, we looked at the types of interactions children with disabilities had with their teachers and peers, using classroom observations and teacher interviews. The majority (63%) of interactions had a positive emotional tone for students with disabilities, and most (54%) were focused on instructional support. Teachers with more than three years of teaching experience had more positive emotional tone interactions and a higher incidence of instructional support. All five teachers displayed an effort to differentiate their instruction, and all teachers expressed an interest in additional training to help them support students with disabilities. Though a small sample, this finding suggests a counter-narrative to the assumption that teachers, particularly in sub-Saharan Africa, are not motivated to teach children with disabilities within mainstream classrooms. The sampled teachers were enthusiastic about teaching kids with disabilities and were building a warm, welcoming classroom environment through their daily interactions with these children. This created a strong foundation that teachers can build on, with support and training, to continue to differentiate instruction for children with disabilities.


In the digitally empowered society, increased internet utilization leads to potential harm to the youth through cyberbullying on various social networking platforms. The cyberbullying stats keep on rising each year, leading to detrimental consequences. In response to this online threat, the Indian Government launched different helplines, especially for the children and women who need assistance, various complaint boxes, cyber cells, and made strict legal provisions to curb online offenses. This research evaluates the relevant initiatives. Additionally, a survey is conducted to get insights into cyberbullying in higher education institutions, discussing multiple factors responsible for youth and adolescents being cyberbullied and a few measures to combat it in universities/colleges.

Many youth experience declines in psychosocial well-being during the transition from high school to postsecondary. Hypothesizing that extracurricular activity involvement in high school functions as a resource factor, the current study examines type and breadth as predictors of psychosocial well-being one year postsecondary. The sample (N = 4070) consisted of students from diverse ethnic-racial and socio-economic status backgrounds (30% Latinx; 60% had a parent without a college degree; 47% cisgender female). Eleventh grade involvement in sports was linked with lower loneliness, social anxiety, and depressive symptoms, and higher self-worth, whereas special interest clubs were associated with lower social anxiety and depressive symptoms. Examining breadth, one or two activities were linked with optimal psychosocial well-being. The results suggest that sports and special interest clubs, and up to two activity domains, are associated with optimal psychosocial well-being, providing recommendations for extracurricular programming and youth involvement.


Under current test-driven educational accountability policies, there has been a debate about school effectiveness. As conventionally measured by test scores in academic subjects, school effectiveness is often limited and potentially biased. With increasing emphasis on preparing students with both cognitive and noncognitive competencies, educational leaders demand « whole child » approaches for schooling. This study examines whether and how different types of school climate in Eastern versus Western school systems affect whole child development. It applies multivariate multilevel models of school effects using the PISA 2015 datasets from B-S-J-G (China), Korea, Finland, and the U.S., which vary in science achievement and life satisfaction. The study results show cross-national differences in these relationships between Eastern and Western school systems. It sheds new light on the need to balance academic and emotional learning goals and develop a whole school climate with culturally appropriate mixes of both « high expectations/discipline » and « high caring/support » toward whole child development.


Student voice has been heralded as a practice that provides all children with the opportunity to exercise their right to participate in matters affecting them. However, a common research concern is that not all student voices are consistently or comprehensively attended to. What is often under scrutinised is how this uneven distribution of opportunities that students have to voice may be felt by students, in particular by those who have the opportunity to voice. This paper examines a point of perplexity in data generated with members of student representative councils who participated in focus groups. These focus groups were conducted as part of a study that evaluated a primary school student voice programme facilitated by an external
provider. We found that participants’ feelings about the ‘privilege’ of being involved in student voice practice belied their assertions about student voice as a ‘right’ that all students have. Claire Hemmings’ concept of affective dissonance is used to guide our thinking about this disparity between what students think and feel about voicing. We argue for the importance of attending to how students feel about voicing as how they feel may impact on their potential to act as agents of change.


Il y a dix ans maintenant, Ma thèse en 180 secondes® faisait son entrée dans les mondes francophones de la recherche et de l’enseignement supérieur. Inspiré d’un dispositif Australien, Three Minutes Thesis (3MT), cette compétition de communications pour doctorants porte les candidats à s’affronter les uns aux autres à coups de speechs de trois minutes censés rendre compte de leurs travaux de recherche. Il pourrait, en somme, s’agir d’une sorte de concours de vulgarisation visant à mettre en lumière « la relève de la recherche ». Or, à étudier précisément ce qui se dit et se joue au MT180® (Corsi et al.), il est permis d’en douter. Et, à demander à d’anciens lauréats ce qu’ils pensent de leur passage sur les planches du concours, l’analyse selon laquelle Ma thèse en 180 secondes® servirait premièrement à faire sortir les sciences des laboratoires et à valoriser les chercheurs en devenir demande à être réexaminée de près. Ce que nous proposons de faire ici.


Notre recherche a pour objectif de comprendre et d’expliquer les dynamiques individuelles de personnes engagées dans des formations de type « micro-accréditations », nouvelles certifications rassemblant plusieurs cours sur un sujet donné, à partir d’un cas d’étude : une série de 3 cours en ligne en finance d’entreprise, ICCF @ HEC Paris. Ces formations dérivent des MOOC, en étant plus conséquentes, avec une valeur certifiante plus importante et potentiellement davantage valorisables professionnellement. Nous avons développé un cadre conceptuel, articulé autour de la notion de projet de formation individuel et de sa mise en œuvre, tenant compte de l’engagement en formation (entrée en formation et conduites adoptées pour la suivre) et des effets du suivi de cette formation. Notre méthode d’investigation était mixte, rétrospective et longitudinale, associant entretiens (dont 38 avec d’anciens participants de la formation), observations (8 séances de travail en groupe de 3 heures), questionnaires en ligne, collecte et analyse de traces d’activité sur une promotion de 706 participants, suivie in extenso. Nous avons articulé différentes formes de présentation des résultats : une série de 18 portraits inspirés de la démarche de Lahire (2016), mettant en évidence la singularité des projets de formation des individus ; une analyse croisant les résultats statistiques tirés des réponses aux questionnaires, diffusés aux anciens participants et les résultats issus de l’analyse des traces d’activité, tout cela complété et illustré par les témoignages recueillis. Parmi les principaux résultats, nous avons constaté que les individus s’engagent selon des motifs opératoires professionnels et des motifs économiques ou vocationnels (Carré, 2001), parfois reconstruits entre le début et la fin de la formation. Les profils de participation adoptés sont quant à eux relativement
stables ou parfois sujets à de faibles mobilités. On retrouve par ailleurs, les effets du suivi de la formation, issus des travaux sur les MOOC, autant de FUN MOOC que de Coursera (Zhenghao et al., 2015) ; plus d’un tiers de participants déclarent des effets tangibles (par exemple une mobilité) et plus des trois quarts disent se sentir compétents dans la discipline de la formation, du fait de l’avoir suivie. Ces effets déclarés sont par ailleurs en partie conformes aux attentes qu’avaient les participants en s’engageant dans la formation. Certains effets tangibles s’expliquent, en partie, par le fait d’avoir démontré sa capacité à se former (augmentation de salaire/ mobilité interne), ou encore par la mobilisation du réseau, créé pendant la formation ou celui y étant associé (développement de sa propre activité professionnelle, augmentation de salaire, promotion).


This report from the Research Alliance for New York City Schools and MDRC examines the impact of 37 CTE-dedicated high schools in New York City on a range of outcomes, including academic engagement, high school graduation, and college enrollment. During the last decade, career and technical education (CTE) has retaken a prominent place in federal, state, and local education policies. The New York City Department of Education (NYCDOE) oversees one of the largest and most diverse CTE systems in the country. In collaboration with researchers from MDRC, Boston College, and the University of Connecticut, the Research Alliance for New York City Schools has undertaken a multiyear study of CTE that is informing policy decisions in New York City and nationally. Findings from the study are particularly relevant to the work of the NYCDOE’s Office of Student Pathways, which is overseeing a large expansion of “career-connected learning opportunities” across New York City’s high schools. This report is one of several that will emerge from the ongoing study. It focuses on 37 CTE-dedicated high schools, which are structured to ensure that all enrolled students participate in a CTE Program of Study from 9th through 12th grade. These programs are organized around an industry-aligned theme (for instance, construction, IT, and health services) and offer a sequence of career-focused courses, work-based learning opportunities, and access to aligned college-level coursework. This study uses an especially rigorous approach to compare the experiences and outcomes of nearly 19,000 NYC students who were assigned to a CTE-dedicated high school between 2013 and 2016 with those of similar students who also applied to CTE programs but were assigned to another high school during the same period. Among the key findings: A majority of students assigned to CTE-dedicated high schools completed the required number of CTE credits, and about one-quarter participated in a work-based internship. While these rates are substantially higher than for the non-CTE group, many students in CTE-dedicated high schools were not completing the most intensive aspects of a CTE Program of Study. It is important to note that the internship data only include students who received course credit or were paid through the DOE’s Internship Management System. This highlights the need for better, more consistent tracking of students’ participation in work-based learning. The CTE-dedicated schools produced modest but positive impacts on student engagement, including staying on track for a New York State Regents diploma. One concern about CTE generally has been
the idea that requiring students to complete career-specific courses and internships might distract them from other academic requirements and impede their progress through high school. This study found no evidence of this. While students in CTE-dedicated high schools earned somewhat fewer credits in academic subjects, they earned substantially more CTE course credits—and more credits overall—than their non-CTE counterparts. Students in CTE-dedicated high schools had higher attendance and were consistently more likely to be on track for a Regents diploma. CTE students graduated from high school and enrolled in college at rates that were similar, on average, to their non-CTE counterparts. Although students in the CTE-dedicated high schools were more likely to be on track in 9th through 11th grades, the findings show that non-CTE students were equally likely to graduate. This appears to be due to the non-CTE students “catching up” in the 12th grade. The non-CTE group had slightly higher immediate college enrollment rates, but this difference disappeared when students were into the second year after their scheduled high school graduation. There was a great deal of variation in both programming conditions and impacts across the 37 CTE-dedicated high schools. In general, the study found that smaller, nonselective schools with a single or coherent set of career themes appear to have produced meaningful improvements in high school graduation and college enrollment rates—particularly in programs focused on occupations requiring a bachelor’s degree for entry-level jobs. In contrast, larger, more selective schools with a range of programs focused on occupations that often require limited postsecondary education had null or negative effects on graduation and college enrollment. The study does not yet have data to determine whether students in these schools opted for employment immediately after high school or if they enrolled in postsecondary education later on. The study team is working to obtain data on students’ employment and earnings, as well as on longer-term college enrollment, persistence, and completion outcomes. This information will be crucial to fully understand the impacts of NYC’s diverse CTE options. Upcoming reports from this study will assess the costs associated with CTE and the implementation and impact of CTE programs in comprehensive (that is, non-CTE-dedicated) high schools.


This investigation studied the effects of the Multiple Literacies in Project-Based Learning science intervention on third graders’ academic, social, and emotional learning. This intervention includes four science units and materials, professional learning, and post-unit assessments; features of project-based learning; three-dimensional learning (National Research Council, 2012); and the performance expectations from the Next Generation of Science Standards (NGSS Lead States, 2013). The intervention was evaluated with a cluster randomized control trial in 46 Michigan schools with 2,371 students. Results show that students who received the intervention had higher scores on a standardized science test (0.277 standard deviation) and reported higher levels of self-reflection and collaboration when involved in science activities.

It is expected that all students in the United States learn to read English well. This task is more complex for emergent bilinguals (EBs), the majority of whom speak Spanish, who are simultaneously developing their English language proficiency. Although several syntheses have documented the positive effects of shared book reading (SBR) in school settings on students’ language growth, the majority of these have either not included EBs or addressed their participants’ language learner status. In this review, we sought to identify all peer-reviewed experimental study reports examining the effects of SBR on language-related outcomes for Spanish-speaking EBs. We identified 17 relevant studies, 11 of which we determined met What Works Clearinghouse™ (WWC) quality standards with or without reservations. Of these, 10 also demonstrated statistically significant effects on at least one language-related outcome. Included studies primarily examined vocabulary outcomes, with mostly medium to large effect sizes found on researcher-designed (RD) measures. We reported on components found across different SBR interventions, and made recommendations for practice and future research.


Improv theater has expanded beyond a popular American form of entertainment into an educational experience for students and teachers. It may be difficult to imagine that an interactive, joyful, and collaborative improv workshop might be harmful, but our own experiences as professional improvisers led us to observe that even well-intentioned, antiracist improv theater interventions tend to reflect Whiteness more than democratic values. We investigate this observation through a systematic review of education research articles. Our review of 30 studies reveals that, to varying degrees, researchers have regarded improvisation as an instrumental practice to improve some other activity or as metaphor for the activity of teaching. We found that Whiteness has been central to the use of improvisation in educational contexts. Finally, this study illustrates that a turn toward disciplined improvisation or an improvisational ethos offers one way to practice the ideals of democratic education.


This paper provides evidence from the US and Denmark that managers with a business degree ("business managers") reduce their employees’ wages. Within five years of the appointment of a business manager, wages decline by 6% and the labor share by 5 percentage points in the US, and by 3% and 3 percentage points in Denmark. Firms appointing business managers are not on differential trends and do not enjoy higher output, investment, or employment growth thereafter. Using manager retirements and deaths and an IV strategy based on the diffusion of the practice of appointing business managers within industry, region and size quartile cells, we provide additional evidence that these are causal effects. We establish that the proximate cause of these (relative) wage effects are changes in rent-sharing practices following the appointment of business managers. Exploiting exogenous export demand shocks, we show that non-
business managers share profits with their workers, whereas business managers do not. But consistent with our first set of results, these business managers show no greater ability to increase sales or profits in response to exporting opportunities. Finally, we use the influence of role models on college major choice to instrument for the decision to enroll in a business degree in Denmark and show that our estimates correspond to causal effects of practices and values acquired in business education—rather than the differential selection into business education of individuals unlikely to share rents with workers.


We investigate the impact of labour market concentration on two dimensions of job quality, namely wages and job security. We leverage rich administrative linked employer-employee data from Denmark, France, Germany, Italy, Portugal and Spain in the 2010s to provide the first comparable cross-country evidence in the literature. We show that the elasticities of wages with respect to labour market concentration are strikingly similar across countries. Increasing labour market concentration by 10% reduces wages by 0.19% in Germany, 0.22% in France, 0.25% in Portugal and 0.29% in Denmark. We find greater elasticities for job security. An increase in labour market concentration by 10% reduces the probability of being hired on a permanent contract by 0.46% in France, 0.51% in Germany and 2.34% in Portugal. In Italy and Spain, while not affecting this probability, labour market concentration has a strong negative effect on conversions to a permanent contract once hired on a temporary one. Using German and Portuguese data, we provide suggestive evidence that the similarity of our wage elasticities across countries and the greater sensitivity of job security to labour market concentration may be explained by the fact that sector-level collective bargaining is dominant in the countries we study and that it sets wages but usually not contract type.


This paper provides representative evidence on the perceived returns to maternal labor supply. We design a novel survey to elicit subjective expectations, and show that a mother’s decision to work is perceived to have sizable impacts on child skills, family outcomes, and the future labor market outcomes of the mother. Examining the channels through which the impacts are perceived to operate, we document that beliefs about the impact of additional household income can account for some, but not all, of the perceived positive effects. Beliefs about returns substantially vary across the population and are predictive of labor supply intentions under different policy scenarios related to childcare availability and quality, two factors that are also perceived as important. Consistent with socialization playing a role in the formation of beliefs, we show that respondents whose own mother worked perceive the returns to maternal labor supply as higher.

This thesis' main objects of interest are the wage returns to education and experience on labor markets, and the earning inequalitiesthese returns generate. It seeks to understand these returns from a matching perspective, by investigating determinants of relationshipformation between workers and firms. The first chapter documents flattening wage returns to experience between higher educationgraduates entering the French labor market in 1998 and 2010. Differences in average wage growth are decomposed by occupation intoan extensive and intensive margin. Two potential mechanisms behind the wage growth slow down are explored: access to managerialpositions and impact of initial match quality. I find access to managerial positions is more infrequent for recent cohorts. I also find thatinitial match quality has not worsened between the 1998 and 2010 cohorts, but its impact on future wages has become more enduring.

The second chapter studies the decrease in the education wage premium on the Portuguese labor market between 1987 and 2017. I build a model of one-to-many matching with multidimensional types in which several workers are employed by a single firm. I structurallyestimate the model on matched employer-employee data. Counterfactual exercises suggest that both changes in worker preferences andthe increasing relative productivity of high school graduates over non-graduates act as a mitigating force on the decreasing high schoolwage premium, but do not fully compensate for high school graduates' rise in relative supply. In the third chapter, co-authored with JeremyFox and Alfred Galichon, we explore how expectations on future returns influence matching decisions. We introduce a model of dynamic matching with transferable utility. We explore aggregate dynamics and show that a stationary equilibrium exists. We propose twoalgorithms to compute a stationary equilibrium and adapt both methods for estimation.


Cuestión prioritaria para las políticas públicas nacionales y europeas, los jóvenes que no trabajan, no estudian ni reciben formación (NEET) corren un riesgo de exclusión más o menos importante según los países. Si bien el nivel de educación desempeña un papel central en estas situaciones, el enfoque de las competencias básicas permite afinar la mirada. En efecto, los datos internacionales muestran que el mismo nivel de diploma no certifica el mismo nivel de competencias en todas partes. ¿Cómo se explican estas diferencias? ¿Hasta qué punto estas competencias protegen contra las situaciones de NEET independientemente del título?


Pour les femmes les moins qualifiées et les plus précaires, les inégalités sociales et économiques commencent par l’accès au marché du travail, avant même de pouvoir envisager une retraite digne.


Cognitive endurance -- the ability to sustain performance on a cognitively-demanding task over time -- is thought to be a crucial productivity determinant. However, a lack of data on this variable has limited researchers’ ability to understand its role for success in
college and the labor market. This paper uses college-admission-exam records from 15 million Brazilian high school students to measure cognitive endurance based on changes in performance throughout the exam. By exploiting exogenous variation in the order of exam questions, I show that students are 7.1 percentage points more likely to correctly answer a given question when it appears at the beginning of the day versus the end (relative to a sample mean of 34.3%). I develop a method to decompose test scores into fatigue-adjusted ability and cognitive endurance. I then merge these measures into a higher-education census and the earnings records of the universe of Brazilian formal-sector workers to quantify the association between endurance and long-run outcomes. I find that cognitive endurance has a statistically and economically significant wage return. Controlling for fatigue-adjusted ability and other student characteristics, a one-standard-deviation higher endurance predicts a 5.4% wage increase. This wage return to endurance is sizable, equivalent to a third of the wage return to ability. I also document positive associations between endurance and college attendance, college quality, college graduation, firm quality, and other outcomes. Finally, I show how systematic differences in endurance across students interact with the exam design to determine the sorting of students to colleges. I discuss the implications of these findings for the use of cognitive assessments for talent selection and investments in interventions that build cognitive endurance.


In recent years, student-centered learning has undergone significant changes influenced by the introduction of the competency-based approach to the digital learning environment. The new approach places a teacher at the center of the educational process taking into account professional competencies and personal interests of educators to foster the improvements of methodological, organizational, and technological support of personalized learning. The sample (N = 36) consists of the 3rd year students of University (KazNPU). The research methodology uses the following metrics to test the psychological and emotional characteristics of students: Communication Skills Assessments and Analysis of Cultural and Value Orientations. The study revealed a background of discomfort with the current system of education - about half of the respondents experience psychological and emotional stress due to the current education format. In addition, after the implementation of the program it was found that the SCL configuration model, applied to distance learning, had a significant impact on students. Statistical analysis of the chi-square indices of general fit ($\chi^2 = 122.77$) shows a good fit to the set of data points. The results can be used by educators and in future research to analyze the feasibility and advantages of digital educational processes in other geographical regions.


Cet article s’intéresse au travail accompli par les syndicats d’enseignants en Ontario – la province la plus peuplée du Canada – pendant la pandémie de Covid-19, entre mars 2020 et février 2022. Si cette crise sanitaire a constitué un moment exceptionnel dans l’histoire de l’éducation en Ontario, elle illustre de manière frappante le cadre contraint dans lequel les organisations d’enseignants évoluent depuis longtemps. Dans ce système éducatif hiérarchisé et très centralisé où les décisions en matière de politique éducative sont prises en toute méconnaissance des réalités du terrain, la pandémie n’a fait qu’exacerber des dysfonctionnements persistants.


The well-being and mental health of principals is being threatened by changing working conditions such as a broader variety of roles and tasks. In this article, we argue that social capital might buffer against declining (mental) health. The purpose of this study was to investigate the potential influence of social capital, including both internal (bonding) and external (bridging and linking) social capital, on principals’ well-being. A longitudinal study was set up across three waves of data. Questionnaires were collected from 2084...
Australian principals and 829 Irish principals, across six and two timepoints, respectively. The hypotheses were tested using a longitudinal path model approach using maximum likelihood estimation in lavaan for R. In line with our hypotheses, the results indicated that principals who reported higher levels of either internal or external social capital also reported higher levels of well-being. More specifically, support from colleagues outside the school and supervisor support (external social capital) and collaboration and trust in management (internal social capital) predicted well-being positively across time. The results of this study highlight the importance of having social support from colleagues and supervisors and possibilities for collaboration to maintain well-being as a school principal.


This study examined bias reduction in the eight nonequivalent comparison group designs (NECGDs) that result from combining (a) choice of a local versus non-local comparison group, and analytic use or not of (b) a pretest measure of the study outcome and (c) a
rich set of other covariates. Bias was estimated as the difference in causal estimate between each NECGD and a carefully appraised randomized experiment with the same intervention, outcome, and estimand. Results indicated that bias generally declined with the number of design elements in an NECGD, that combining all three sufficed to eliminate bias but was not necessary for it, and that this pattern of results was largely replicated across five different replication factors.


Souvent heurtés par les annonces gouvernementales, les enseignants se demandent comment tenir dans un métier qu’on démarre de plus en plus tard, et dont la pénibilité est sous-estimée.

Emotions hover like a shadow over the lives and work of school principals. This study aimed to build an understanding of principals’ emotional trajectories across principalship career stages by investigating the life stories of four excellent principals from China who were approaching retirement. The major data source was semi-structured interviews conducted with the participating principals. This study is a first to attempt to capture the dynamic emotional trajectory of excellent principals. The results show that the principals experienced more negative emotions than positive emotions during the earlier stages of their careers, but fewer negative and more positive emotions during the later stages. The principals tended to adopt genuine expressions throughout their principalship in order to achieve desirable consequences. They were more likely to utilise surface acting strategies during earlier career stages, but more deep acting strategies to achieve emotional consonance later in their careers as they became more confident about accomplishing professional goals. The study offers fresh insights into principals’ emotional trajectories. The findings aim to better inform principals, scholars and policy makers about the place and shape of principal emotional leadership.

Understanding psychological processes underlying change in teachers’ psychological functioning is crucial to identifying the developmental processes at play. Guided by self-determination theory, this study uses a sample of 330 teachers in the northeastern United States of America to examine if initial levels of teachers’ basic psychological needs (i.e., global psychological need satisfaction, autonomy, competence, relatedness) are associated with change in components of psychological functioning over time. Results indicate that most psychological needs are unassociated with change in psychological
functioning, raising questions about how and when those needs are implicated to support teachers. Implications for research and practice are discussed.


Cette étude se propose d’analyser l’action du principal syndicat des enseignants du Pérou pour la construction d’un ensemble de politiques publiques mises en place dans ce pays au cours des vingt dernières années. L’article se concentre sur la période qui couvre les années 2001 à 2017, et examine plus précisément la participation du syndicat à la phase de conception de ces politiques éducatives. Le SUTEP a été un acteur constant des dernières réformes péruviennes, même lorsqu’il a adopté une posture d’opposant, face à des sujets variés, et parfois critique dans certains contextes.


There are a disproportionate number of teachers of colour (ToC) in Wales in comparison to pupils of colour. Teachers are less ethnically diverse than the pupils they are teaching with only 1.3% of teachers categorising themselves as being from a non-White background. This paper sets out findings from research investigating recruitment into Initial Teacher Education (ITE) and the career progression of ToC in Wales. Through a qualitative case study approach, employing participant voice, it gives participants a platform to articulate their experiences. Sixty-eight semi-structured interviews took place and participants were a mixture of 14+ learners and serving teachers/leaders, all from diverse backgrounds. As a multi-ethnic research team ourselves, we were aware of issues that participants faced within the Welsh school system, either as pupils or teachers, and were committed to carrying out the research, employing an empathetic lens. This was especially relevant as participants were relaying incidents of racism and racial trauma suffered, as well as sharing their achievements. This provided us with rich data, detailing lived experience and gave an insight into the unique experiences of teachers of colour, within a predominantly White school system in Wales and as a result, suggests what needs to change.


Malgré les progrès réalisés en matière de parité des genres, en milieu universitaire, les femmes demeurent désavantagées sur plusieurs plans. En tant que professeures, chercheuses ou étudiantes, elles ne bénéficient pas des mêmes possibilités que leurs confrères. Dans cet article, nous présentons les résultats d’une étude de cas mettant en exergue l’accompagnement par les pairs entre doctorantes devant s’approprier des compétences rédactionnelles pour s’insérer dans leur champ de recherche. En nous appuyant sur le cadre théorique de socialisation au métier de chercheur développé par Skakni (2011), nous analysons des extraits d’entrevues semi-dirigées menées auprès de 25 doctorantes provenant d’universités canadiennes. Les résultats révèlent une préférence des participantes de s’associer à leurs semblables dans des groupes de rédaction académique afin de normaliser les défis auxquels elles font face en milieu universitaire. De plus, elles semblent accorder autant de valeur à l’accompagnement
dont elles bénéficient de leurs pairs que du soutien qu’elles offrent à leurs consœurs. En définitive, il en ressort des collaborations, autant professionnelles que personnelles, par l’établissement d’un réseau de chercheuses novices qui privilégient la solidarité, plutôt que la compétitivité habituellement observée aux cycles supérieurs. La discussion porte sur la perspective féminine de cette culture de compétitivité et des différences de genre menant à une disparité dans les besoins de socialisation qui règnent en milieu universitaire. Enfin, des suggestions sont offertes pour l’exploration d’actions sociales étudiantes, en complémentarité à l’encadrement institutionnel, afin d’optimiser la socialisation des doctorantes, et par le fait même, leur professionnalisation au monde de la recherche.


There is a gap in the literature for how organizational and individual factors affect teachers’ adjustment. This study, focused on teachers, attempts to fill this lack by examining the extents to which psychological need satisfaction acts as a mediator between organizational justice, resilience, and teachers’ adjustment to work. We based this study on the predictive model of psychological health at work, psychological adjustment theory, and self-determination theory which argue that individuals have a sense of well-being at work if it promotes the satisfaction of their needs for autonomy, competence, and relatedness. We tested our model in the education sector. Using a cross-sectional design, we asked French teachers (N = 393) to fill in a one-step self-report questionnaire. Mediation analyses showed that satisfaction of the three needs played a mediating role between organizational justice and job adjustment, and between resilience and job adjustment.


Si dans toutes les sociétés la figure de l’ancien est une composante de la structure sociale, qu’en est-il aujourd’hui dans le champ des pratiques et des établissements qui œuvrent dans le social, le médico-social et le soin ? Explorer l’idée d’« ancien » dans la diversité des sens, en repérer les fondements dans les structures sociales donnera les contours sémantiques pour éclairer la thématique de ce numéro. Au fil de paroles et récits d’anciens – anciens enfants/adolescents –, se profilera en quoi, dans la chaîne des connaissances et des savoirs, les anciens sont, peut-être, maillons de transmission. Si la place des usagers des dispositifs est inscrite dans la loi et fait partie intégrante des projets, de nouvelles formes s’expérimentent. Elles relèvent le défi d’inscrire les savoirs d’expérience vécue dans la mise en œuvre des projets. Dans quelques placards et recoins reposent des dossiers, archives où se côtoient traces de mots, récits de professionnels et d’« usagers », dessins et photos. De temps en temps, un enfant, un adolescent, un adulte, en quelque occasion, demande à rouvrir cet espace de mémoire. Quelle place y ont ces acteurs, que représentent les anciens dans les centres de formation, qui sont par essence des lieux de transmission ?


À partir d’une enquête auprès des professeur.e.s des écoles qui ont démissionné, l’autrice met en cause les transformations rythmées par la casse des services publics qui entraînent alourdissement et intensification du travail pédagogique, et multiplication de nouvelles missions compliquant toujours plus le métier. Ces transformations, qui s’imposent dans un contexte d’austérité et de contrôle croissants des activités professionnelles, nourrissent le sentiment d’un décalage entre les investissements exigés et les satisfactions que les enseignants peuvent escompter de leur métier.


It has been known for some time that academic researchers are subject to diverse relations of production that influence the direction and ultimately the value of their scientific work. In this context, this study examines how the field of educational administration is practiced at higher education institutions in Turkey, how these practices have become socially integrated over the years and how a structurally cohesive core characterizes the discipline’s research activity. The study reviews 609 doctoral dissertations concerning educational administration from a longitudinal perspective (1988 to 2020) using a two-tier theoretical path: the role of academic familism and disciplinary cohesion in the field. The findings reveal that academic familism and disciplinary cohesion are interrelated and interdependent. Together they impact the formation of monolithic gendered, epistemic, and academic communities, consolidate gendered and monolithic academic networking, and limit cross-disciplinary interaction in the educational administration field.


La contribution aborde l’évolution historique et la situation actuelle des différentes formes de représentation dans l’enseignement public autrichien. On trouve, à côté des associations politiques fondées à la fin du xixe siècle, le Syndicat unitaire de la fonction publique, créé en 1945 en tant que syndicat sectoriel de la Confédération autrichienne des syndicats. En 1967 ont été créées des représentations des personnels dans tous les
services du système éducatif. En montrant la polarisation idéologique sur les questions scolaires et en analysant la structure de gouvernance complexe de l’État fédéral autrichien, l’article met en évidence les forces, mais également les limites de l’influence que peuvent exercer les représentations des enseignants.


This paper examines the influence of professional learning communities (PLCs) on informal teacher leadership in Hong Kong schools to overcome issues reported in the literature on the challenges to teacher leadership posed by Chinese hierarchical school contexts. We test the relations among PLC, informal teacher leadership, teacher focus on improving student learning, principal instructional leadership, and middle leadership (e.g., subject heads) with structural equation modeling of survey responses from 638 teachers of primary and secondary schools in Hong Kong. The results show an overall positive influence among all factors in the study. PLCs have the highest positive influence among the factors considered in this study. PLCs are highly influential in promoting informal teacher leadership, which in turn has a high positive linkage to teachers’ focus on improving student learning. In addition, principal instructional leadership has a high positive influence on PLCs, while middle leadership has a moderate positive influence on PLCs. To further enhance teacher leadership capabilities that promote teachers’ focus on improving student learning, we provide recommendations to boost PLC and middle leadership capacities in schools.


This study analyses academics’ commitment and job satisfaction according to full-time non-tenure-track (FTNT) and full-time tenure-track (FTT) in South Korea’s changing academic environment. Data were collected from the 2018 Academic Profession in the Knowledge-Based Society Survey. One-way analyses of variance show no statistically significant differences in professional commitment (PC) and organisational commitment (OC) between FTNT and FTT academics, but FTNT academics exhibit significantly lower job satisfaction. Hierarchical linear regression models indicate that OC positively relates to job satisfaction, but PC is not statistically significantly associated with job satisfaction. This study argues that work conditions and stable positions are important factors in job satisfaction, though committed academics are likely to remain with the profession and organisation. These findings have implications for the treatment of academics and for university hiring and promotion procedures in today’s changing academic environment.


School middle leadership is a complex and increasingly important school leadership position, with research showing the significance of middle leadership to school improvement and teacher development. The purpose of this article is to identify and analyse empirical peer reviewed articles on middle leadership from 2006 to 2020, to understand how middle leaders are defined, the responsibilities they hold, the impact
and professional development they are afforded, and to discover lacunae in studies to support further research. The review was conducted using Scopus and ERIC; a total of 35 articles across 14 countries were selected. Using Nvivo, narrative synthesis was utilised to analyse the articles resulting in four conclusions: 1) middle leadership is difficult to define; 2) middle leadership positions and responsibilities vary considerably and are best understood in context; 3) middle leaders directly and indirectly impact teacher practice, team development, school reform and professional learning, although there is limited direct research into their impact; and 4) middle leadership professional learning has not progressed to the point to adequately equip middle leaders for the complexity of their positions. The article highlights two distinguishable differences to separate teachers and middle leaders, and provides an operational definition, elaborated description and set of middle leadership characteristics to guide future research and policy advancement.


This study tested a moderated-mediation model of the processes linking principal ethical leadership and professional learning communities in China, in which teacher obligation is included as a mediator, and teacher participation in school decision making is considered as a moderator. The results from 3374 teachers revealed significant direct and indirect effects of ethical leadership on the professional learning communities via teacher obligation. Teacher participation in decision making significantly moderated the effects of ethical leadership on both teacher obligation and on the professional learning communities. The positive effects of principal ethical leadership were strengthened when teachers perceived high participation in school decision making.


The present contribution reports a systematic review of the literature that analyzed the relationships between teachers’ subjective well-being (SWB) and student school experience (i.e., academic performance, academic engagement, student well-being, and student reports of teacher-student interactions). We categorized teachers’ well-being into hedonic SWB (e.g., experiencing positive emotions, life satisfaction, job satisfaction) and eudaimonic SWB (e.g., experiencing high psychological functioning or high sense of self-realization). An online search yielded 1872 abstracts that were analyzed for eligibility, yielding a number of 26 studies that were included in the meta-analysis. These 26 contributions (i) reported an empirical research study; (ii) collected data from teachers and students; and (iii) reported zero-order standardized correlation coefficients between teacher data and student data. We found that most studies focused on assessing teachers’ psychological functioning (20 studies). Overall results suggested that teachers’ eudaimonic SWB had moderate associations with the quality of student–teacher interactions ($r = .243$, 95% CI [.045; .422], $k = 9$), with students’ well-being ($r = .280$, 95% CI [.117; .428], $k = 8$), and with student engagement ($r = .250$, 95% CI [.115; .375], $k = 8$). We found weaker correlations between teachers’ eudaimonic SWB and student achievement ($r = .065$, 95% CI [.016; .112], $k = 8$). Our results suggested that teachers’
eudaimonic SWB is significantly associated with student-related variables, but the directionality of this relationship needs further investigations.


Schools are an ideal setting to base mental health literacy programs as the learning environment is already established. Mental health literacy represents how to obtain and maintain good mental health and should be incorporated into the school curriculum. Collaboration with key stakeholders in youth mental health, such as school staff and allied health professionals, is critical in ensuring needs are addressed, and programs are sustainable. This study aimed to understand the perspectives of school staff and allied health professionals towards mental health literacy within Australian schools. An exploratory qualitative and quantitative survey was completed by 88 participants across Australia. Results indicated that school staff feel less competent to deliver mental health literacy content and perceive their training did not address mental health education compared to allied health professionals. Most mental health programs reported to be implemented within schools were social and emotional learning programs. School staff viewed mental health programs to strengthen academic performance less than allied health professionals. Thematic analysis of qualitative data identified that participants viewed mental health knowledge, where and how to seek help, and coping skills as vital content to cover in a school-based mental health literacy program. This study reveals that school staff need sufficient training and resources to address youth mental health literacy. Though mental health literacy is lacking in the Australian school system, the perspectives of school staff and allied health professionals in this study provide key ideas and considerations for the future development of school-based mental health literacy programs for youth.


Entre une organisation pyramidale et des collectifs de travail réduits à peau de chagrin, le mal-être des enseignants est profond, selon une enquête menée pour l’Autonome de solidarité laïque (ASL).


Les progrès de l’agenda politique néolibéral ont conduit à la fermeture et à la privatisation de nombre d’écoles publiques aux États-Unis. Face à cela, un nombre croissant de syndicats d’enseignants choisissent d’adopter un modèle de « syndicalisme de justice sociale » afin de lutter pour la sauvegarde de l’éducation publique. Le syndicalisme de justice sociale est un modèle syndical émergent qui s’oppose au syndicalisme corporatiste, en donnant la priorité aux modes d’action contestataires, en plaçant au cœur des préoccupations la justice sociale et raciale et en renforçant les alliances communautaires. Cet article aborde les différentes méthodes par lesquelles les syndicats se transforment, la gamme des enjeux et des tactiques mobilisés et, plus généralement, la manière dont l’évolution vers un syndicalisme de justice sociale a conduit à un militantisme accru parmi les syndicats d’enseignants américains.

This paper considers teacher education for teachers of learners with severe to profound disabilities (SPD) in South Africa, in both formal and non-formal learning programmes within a disability studies in education framework. Qualitative data were collected from a range of education stakeholders including non-governmental (NGOs) and disabled people organisations (DPOs). Based on a thematic analysis, findings show limited pre-service teacher education programmes focused on teaching learners with SPD. In-service teacher training through education departments and NGOs and DPOs, is usually through basic short courses or workshops and are not complemented by on-going support. We argue for a reconceptualization of teacher education in South Africa to prepare teachers to meet the diverse needs of learners, including those with SPDs within an inclusive education context. Skills in addressing barriers to learning should be infused throughout initial teacher education, in line with the principles of universal design for learning while impairment-specific knowledge can be offered in related modules that focus on reasonable accommodation for children with disabilities. In-service education can occur in formal and informal programmes and should empowers teachers to become lifelong learners.


Prior research has shown the importance of collaborative culture as well as teacher job satisfaction and commitment in navigating complex school improvement processes. This study investigated the relationship between collaborative culture, affective commitment, and job satisfaction of teachers taking both collaborative cultures in the entire school, as well as in informal subgroups, into account. Survey data of 760 teachers, nested in 136 subgroups and 13 secondary schools, were analyzed using multilevel path analyses. Results show that collaborative culture in the informal subgroup is positively related to teachers’ affective commitment and job satisfaction and that affective commitment is a mediator. The collaborative culture at the school level was not a significant predictor. School leaders need to be aware that there are, to some extent, subgroups within the school which develop their own collaborative culture through social contagion processes which impact job satisfaction and affective commitment to a greater extent than the school-level culture.


Many studies claim the importance of goal-setting for school improvement but few outline specific practices. This study highlights specific goal-setting practices associated with successful school improvement efforts. It reports on a 2-year collaborative research project, which closely examined three principals’ goal-setting practices in the context of their schools. It documents principals’ and staffs’ efforts to improve equity in outcomes through detailed case studies. Case studies drew on principal and teacher interview
data, workshop artifacts and discussion recordings, observations, school reports and school achievement data. The in-depth case and cross-case analyses focused on micro-level leadership practices and their impact on school-wide practices. This study highlights four key leadership drivers for improvement. These include: justifying goals in ways that challenge teachers’ beliefs about current achievement to raise commitment; embedding tight and rigorous monitoring practices with a focus on problem-solving and improvement; distributing responsibility and leadership; and developing the capability and collective responsibility of middle leaders. Our discussion highlights how leaders’ belief systems can enable or constrain their ability to influence their schools’ cultures.

This study examines policies of English language teacher recruitment in Iran as part of broader education policies reflected in official national documents, and briefly investigates the implementation of these policies in selected educational institutions. Seven major documents are scrutinised using qualitative content analysis revealing three major categories of English language teacher recruitment policies: prioritising Islamic values and perspectives; emphasising commitment to the goals of the educational system; and focusing on recruited teachers’ knowledge and expertise. Moreover, interviews with three groups of participants at public schools, private language institutes, and universities showed clear discrepancies in translating the official policies into actual recruitment practices. In addition to considerations related to our local context, more broadly, we argue that language education policy as a rich research area, should be further studied in more specific sub-areas such as language teacher education policies, policies of language teaching materials development, and language assessment policies.

This study reports on the professional development and school leadership programmes requested by principals in Malaysian schools. A total of 557 principals provided feedback on their preferred school leadership and professional development programmes which they believed as essential to be effective school leaders. Based on their feedback, mentoring was named the most needed leadership development programme as it allowed access to the guidance, knowledge and skills of senior principals. As for school leadership courses mentioned by school principals, financial management was considered as most useful. The study concludes by recommending suggestions to improve principals’ professional development programmes in Malaysia.

The study sought to explore rural and urban primary school heads’ perspectives on staff appraisal systems in Masvingo Province, Zimbabwe and utilised a qualitative approach
based on a phenomenological design. Five rural primary school heads and five urban primary school heads with at least 14 years of experience were purposely selected. In-depth, face-to-face phenomenological interviews were conducted to collect the lived experiences of participants in relation to performance appraisal systems for teachers. Data were transcribed verbatim and analysed thematically. Three major themes emerged: (a) implementation of performance appraisals; (b) feedback and professional development; and (c) challenges with regard to the implementation of performance appraisals. The economic crisis in Zimbabwe has had a negative impact on school performance appraisal systems. Both school locations had implemented such systems, but were faced with limited resources, time constraints and teachers’ lack of interest in being promoted. In looking at the differences between rural and urban school head participants, the focus was on observation and feedback processes. This study has important implications for staff appraisal systems in Zimbabwe.


Les femmes sont largement surreprésentées dans le corps enseignant primaire et secondaire. Ce déséquilibre peut s’expliquer, du moins en partie, par les stéréotypes de genre, mais aussi par l’attrait de la profession pour les mères qui travaillent et les différences de niveaux de salaire relatif entre hommes et femmes dans l’enseignement. La reconnaissance de la contribution des enseignants à la société pourrait contribuer à attirer les candidat(e)s les plus qualifié(e)s dans la profession, et ce quel que soit leur sexe.


Academic tutoring as a supplementary form of education has quickly spread across China. Tutoring has attracted young college-educated practitioners and has become a highly organized industry. The industry is fast-churning and opportunistic. This article examines the nature of tutors’ work using the qualitative data of 31 tutors and their managers in Beijing. Characteristics of tutoring are typical of precarious service labor with irregular work schedules, blurred work-life boundaries, and artificial emotional labor. However, we also found that tutors’ work was constrained by their invisible neighbor, schoolteachers, in a linked professional ecology. Tutors have limited jurisdiction over daily tasks and perform reactionary teaching based on school subjects. This lack of control has allowed the industry to rationalize their work, making tutors disposable. Our research offers new insights into the linked professions of tutors and schoolteachers. It enriches the concept of precarious and opportunistic labor practices from the sociology of professions perspective.


Alors que l’éducation fait face à de très grands défis, les syndicats d’enseignants ont un rôle essentiel à jouer. Cet article traite de la manière dont ces organisations ont réagi aux réformes en éducation que la Suède a successivement entreprises et du type de carrière qu’elles cherchent à promouvoir pour leurs adhérents. Est examinée en particulier la réforme de la formation initiale des enseignants de 2011, au cours de laquelle les syndicats se sont engagés pour que soit renforcée la légitimité professionnelle de leurs...
membres. Les arguments sous-tendant cette réforme sont étudiés ici en tant qu’expression d’un processus idéologique. L’analyse des idées et des idéologies permet d’observer la façon dont une telle politique émerge au fil de la relation que tissent représentants syndicaux et responsables politiques, et dont des messages sont formulés et transmis entre les parties prenantes. Cet article s’appuie sur les recherches de ses autrices.


L’article interroge la question des identités professionnelles des enseignants français des premier et second degrés au prisme des appartenances et influences syndicales. Le détour par l’histoire de la seconde moitié du xxe siècle constitue une clé de compréhension pour mesurer le passage d’une situation de forte hégémonie syndicale à celle d’un net affaiblissement contemporain. Est ensuite analysé comment celui-ci se traduit dans les résultats aux élections professionnelles et comment, dans le contexte d’une offre syndicale démultipliée, le syndicalisme s’avère plus difficilement lisible aux yeux des enseignants, comment sa baisse d’influence procède aussi des changements intervenus dans les modalités administratives de gestion des carrières. Sont examinées pour conclure quelques questions syndicales vives, autour de la « reconnaissance » professionnelle, du répertoire de l’action revendicative et de l’exercice du métier proprement dit.


Despite the fact that precarious modes of employment have become increasingly common in academic careers, studies have shown that precarious contracts are often hidden and masked within higher education structures. This has important implications for the identities of those on such contracts. This paper uses Goffman’s work on stigma, ‘spoiled identities’, and identity management, and Archer’s concepts of morphostasis and morphogenesis as heuristic devices to examine the ways in which precariously employed academic staff experience their work and think about their identities. In doing so, the paper maps out the complex relationship between structure, agency, and identity in precarious academic careers and the ways in which participants reproduced embedded career norms and dominant career scripts through the process of masking the stigma of their precarity.


Teachers’ emotional competence predicts teachers’ mental health and the teacher-student relationship. Therefore, training pre-service teachers’ emotional competence seems important. In the present study, we evaluated a training of emotional competence comprising elements of emotion knowledge, emotion awareness, and emotion regulation training. We report on data of 186 participants and compared 71 trained subjects to two comparison groups. We found some effects of the training on both self-estimated and objectively measured emotion regulation ability. These effects
remained stable over time. Furthermore, we found that the in-situation emotion insecurity decreased only in the training group. Future implications of these results are discussed.


The increase of resignations in education has continued to trend upwards, particularly during the COVID-19 pandemic. The present study’s aim was to develop a comprehensive investigation of key predictors and motivations for leaving academia. The key factors associated with intent-to-quit were: low perceived organizational support, high exhaustion, and low compassion satisfaction. Additionally, high rates of depression and anxiety were worse for faculty intending to leave academia. To improve retention, it is recommended that higher education institutions commit to increase support to faculty and to improve overall working conditions, in order to advert the predicted impending Great Resignation within academia.


Cet article revient sur l’histoire du système éducatif mexicain et de la création d’un syndicat unique de travailleurs au service de l’éducation, qui garantit les droits des enseignants et les différentes missions éducatives qu’ils remplissent. Il présente également la structure et la fonction de ce syndicat en tant que défenseur des droits des travailleurs et entité qui veille sur l’école publique, orientations qui lui ont permis de développer de manière considérable son niveau d’influence jusqu’à peser sur la vie politique du pays. Au Mexique, pays fédéral composé de trente-deux États, la gouvernance de l’éducation requiert des efforts de compréhension, de négociation et de permanence des structures afin de construire collectivement un programme éducatif pertinent.


There has been an increased push for science, technology, engineering, and mathematics (STEM) students and scientists to be trained in science communication. Science communication researchers have outlined various models of how scientists interact with nonscientists—including deficit, dialogue, and inclusive approaches. We wanted to analyze whether published science communication curricula for STEM students and scientists exhibit features of inclusive science communication. We analyzed n = 81 published science communication trainings. We found an increase in such publications over the past two decades. We coded the trainings according to the science communication model they most closely follow, finding 40.7% deficit, 39.5% dialogue, and 19.8% inclusive. Trainings for STEM undergraduates were the least likely to provide training in the inclusive model. Finally, only 27.2% of publications included evaluation of the efficacy of the curriculum using an external scale or framework. These findings present opportunities: while it is positive that there are more published science communication curricula, science education and communication researchers should develop and publish more-inclusive science communication trainings for STEM students.
Additionally, undergraduate students can and should begin their training in science communication with a focus on inclusivity not deficits. Finally, science education researchers should develop more standards for evaluating the efficacy of inclusive science communication training.


In June 2020, the world witnessed an upsurge in Black Lives Matter (BLM) demonstrations following the murder of George Floyd, an African American, by a White American police officer. The international response called for the global community to reassess the value of black lives blighted by racist social systems. The mass sentiment acted as a catalyst for educational institutions, including those in the UK, to mount a response. It is in this context that a School Partnership Group representing primary and secondary schools in East London embarked on developing a workshop series for the professional development of school leaders. The sessions were aimed at school transformation through anti-racist educational approaches. In this article, we present a discussion of the workshop series held in the academic year 2020–2021, which brought school leaders together in a reflective community of practice. Drawing on data from focus group conversations carried out following the end of the series, this paper argues for school leaders’ professional development that prioritises ‘deep understanding’ supported by reflective communities of practice as a pre-requisite for effective anti-racist practice and sustained school transformation.


Les premières organisations internationales d’enseignants ont été de type « professionnel » ; le souci premier était l’échange de réflexions et d’expériences sur l’éducation. Les syndicats, plus soucieux de liens avec les autres salariés, ont émergé dans un deuxième temps. Que peuvent attendre les syndicats de leur affiliation internationale ? Elle permet de peser auprès des institutions exerçant une influence dans le domaine de l’éducation, comme l’ONU ou l’Unesco. Mais le répertoire d’actions est très limité et se résume pour l’essentiel au lobbying. Reste donc la conviction que dans le monde actuel une bonne compréhension des enjeux de l’éducation passe par les échanges internationaux.


De par le monde, les syndicats enseignants sont-ils affaiblis ou connaissent-ils un processus de renouveau face aux transformations en cours dans les systèmes éducatifs ? Pour permettre la comparaison des dix études proposées dans ce dossier, une grille de lecture composée de quatre axes d’analyse du syndicalisme enseignant est proposée : 1) en tant qu’organisation qui exprime ou représente les intérêts des enseignants ; 2) en tant qu’organisation qui participe à la gouvernance du système éducatif ; 3) en tant que voix collective des enseignants qui souhaite agir sur la politique éducative ; et 4) en tant qu’acteur sociopolitique qui participe au jeu politique au niveau national.

The present study explored the relationship between elementary school students’ mindfulness and academic burnout from dynamic and longitudinal perspectives, as well as the mediating role of perceived teacher support. A total of 193 elementary school students in grades 3–6 were recruited. The results of the follow-up survey showed that one dimension of perceived teacher support, i.e. learning support, mediated the relationships between mindfulness and academic burnout. The results of the daily diary showed that perceived teacher support mediated the dynamic relationship between the observing dimension of state mindfulness and academic burnout.


Educational leadership is essential to implement information and communications technologies in schools but the leadership practice of information and communications technologies coordinators, a position role that supports teachers to implement information and communications technologies, appears limited. The present study applies a distributed perspective to leadership and investigates aspects of information and communications technologies coordinator context that would facilitate leadership. Twenty-seven information and communications technologies coordinators were surveyed on their schools’ structures and mechanisms that mediate their leadership practice. Descriptive statistics show that a wide range of structures and mechanisms in different quantities and with different qualities can be available to coordinators. The majority of coordinators have neither additional position roles nor a teaching load, but the coordinators have organizational unit assignments and attend daily, routine interactions. A case study illustrates how specific structures and mechanisms would facilitate leadership for information and communications technologies implementation. It is recommended to design an information and communications technologies coordinator role as a formal position role, for a school to employ more than one information and communications technologies coordinator, and to develop an information and communications technologies coordinator’s teaching load, organizational unit assignments and routine interactions according to school needs. Several possible populations of information and communications technologies coordinators are identified for further research.


This essay draws together the range of insights that we have gained from a programme of research funded by the Nuffield Foundation. The essay discusses the implications of the research findings for teacher supply policy in England within the landscape in early 2023. We explore the key trends in teacher recruitment, retention and working conditions over the last decade, assessing what progress has been made in addressing the growing
teacher supply challenge and where future policy attention could best be focussed to continue addressing the challenges. Key Findings: High teacher workload and a lack of pay competitiveness are each likely to be contributing to teacher leaving rates remaining high. A reduced pace and volume of policy change since 2016 may have contributed to a slight improvement in the retention rate. The rapid growth of flexible working opportunities in the wider labour market since the pandemic represents an important new threat to the overall attractiveness of teaching relative to other careers for new recruits, but most importantly for retaining existing teachers. The Government needs to take urgent action to address issues on all these fronts. NFER recommend that this includes developing a long-term pay and financial incentives strategy and redoubling efforts to ensure the recommendations of the independent workload review groups are implemented in more schools.


This article presents findings from a representative case study of a typical childcare centre in Singapore that achieved an emerging level of quality certification despite being under-resourced as a non-profit centre. Like other centres, it was navigating a climate of early childhood care and education (ECCE) policy reforms and teacher shortage. Given that quality rating has existed for a few years, the study aimed to explore centre-based conditions that could hinder or facilitate teachers’ distributed pedagogical leadership and the development of a community of practice – both assumed to be necessary for teachers’ continued learning and improvement of centres’ practices. Qualitative data were generated across 10 months through observations, individual interviews and focus group discussions to journey with the teaching team as they negotiated relationships and built a shared vision for their practices. Results are presented here as three overarching themes that explicate: (a) the inevitable influences of the national context of the sector’s workforce; (b) organisational culture and power relations; and (c) pedagogical vision. These illustrate the intricacies involved in centre-based quality improvement work, signalling the need for more investigations into the everyday realities of ECCE reforms as experienced by teachers-as-learners and leaders.


Following social cognitive theory, this study examined the longitudinal relationships between kindergarten teachers’ psychological well-being, self-efficacy, and commitment to children via a two-wave longitudinal design. Based on a sample of 782 Hong Kong kindergarten teachers, the results of the half-longitudinal mediation analysis showed that teachers’ psychological well-being enhanced their commitment to children through the mediation of self-efficacy over time. However, longitudinal reverse mediation and reciprocal relationships were not confirmed. These results support the significance of supplementing social cognitive theory with positive psychology and adopting longitudinal research to detect the direction of prediction of self-efficacy. The practical implications are finally discussed.

Based on 33 Chinese preschool teachers’ emotional experience, this study developed a taxonomy to specify the functional roles of emotions in Chinese preschool teachers’ identity construction. The analysis shows that emotions played three major functions, including a barometer of identity affirmation and disaffirmation, a pedagogic strategy to display situated identities, and a mediator of identity commitment. The findings also reveal individual differences in the fulfillment of these functions during emotional construction of professional identities. Such differences highlighted the importance of teacher beliefs in being a preschool teacher and teacher self-reflection on the interactive nature of emotions in identity construction.


We evaluate the effects of an online self-assessment tool on teachers’ competencies and beliefs about ICT in education. The causal impact of the tool is evaluated through a randomized encouragement design, involving 7,391 lower secondary teachers across 11 European countries. Short-run impact estimates show that the use of the tool led teachers to critically revise their technology-enhanced teaching competencies (-0.14 standard deviations) and their beliefs about ICT in education (-0.35 s.d.), while there is no impact on their probability of taking specific training. The effects are concentrated among teachers in the top-end tail of the distribution of pre-treatment outcomes. We provide suggestive evidence that the feedback score provided by the tool triggered such results by providing a negative information shock.


In recent years, student-centered learning has undergone significant changes influenced by the introduction of the competency-based approach to the digital learning environment. The new approach places a teacher at the center of the educational process taking into account professional competencies and personal interests of educators to foster the improvements of methodological, organizational, and technological support of personalized learning. The sample (N = 36) consists of the 3rd year students of University (KazNPU). The research methodology uses the following metrics to test the psychological and emotional characteristics of students: Communication Skills Assessments and Analysis of Cultural and Value Orientations. The study revealed a background of discomfort with the current system of education - about half of the respondents experience psychological and emotional stress due to the current education format. In addition, after the implementation of the program it was found that the SCL configuration model, applied to distance learning, had a significant impact on students. Statistical analysis of the chi-square indices of general fit ($\chi^2 = 122.77$) shows a
good fit to the set of data points. The results can be used by educators and in future research to analyze the feasibility and advantages of digital educational processes in other geographical regions.


Abstract

The flipped classroom (FC) is becoming an increasingly popular teaching method in mathematics education. However, few studies have rigorously evaluated its effectiveness, and less so in countries where students’ level of mathematics achievement is low. In this study, we evaluated the impact of an FC intervention in Saudi Arabia, the country with the lowest level of maths achievement in the last iteration of the Trends International Mathematics and Science Study TIMSS. A total of 281 secondary school students received eight weeks of algebra training using either FC or traditional instruction, and were tested on algebra problems taken from past national standardised tests, as well as on a measure of self-efficacy. Students who received the intervention showed higher self-efficacy but no significant difference in maths achievement was observed. Students’ and teachers’ perceptions of the intervention were positive. Practitioner notes

What is already known about this topic

The flipped classroom is an increasingly popular teaching method in mathematics education. There is evidence that the method is beneficial for students. However, there have been very few rigorous evaluation studies of flipped classrooms and most were conducted in the US, Taiwan and China. Whether the beneficial impact of flipped classrooms can be generalised to other countries, particularly countries with low proficiency in mathematics, remains unclear. What this paper adds

We evaluated the impact of the flipped classroom in Saudi Arabia, a country with low proficiency in mathematics and limited technological resources. We used a rigorous design (with a control group) and educationally relevant outcome measures. We found that a flipped classroom can have a positive impact on students’ self-efficacy, and that the method was perceived positively by both teachers and students. Based on interview data, we also documented the perceptions and concerns of the participating teachers. Implications for practice and/or policy

Flipped classrooms showed promising results in a context which differs markedly from previous evaluations, suggesting that the method can be beneficial in a range of contexts. This positive impact was observed despite the intervention being relatively short (six weeks) and implemented by teachers previously unfamiliar with the flipped classroom method.


This study investigates the level of readiness for massive open online courses (MOOCs) of students in Oman. It compares the readiness of ordinary students in the Omani higher education institutions (HEIs) and those outside HEIs who took a MOOC from the larger Omani society and tests for the differences between their levels of readiness. Additionally, it tests for the best predictor for future participation in MOOCs. In this study, readiness is defined as the possession of three sets of skills: technological, metacognitive, and motivational. A sequential two-phase research approach was used by first collecting data from 428 students in different HEIs and then collecting the same data from 253 non-HEI students from the general public who were offered and took a MOOC specifically designed for this study. While high levels of the three sets of skills were found in both study...
samples, the MOOC students were found to have significantly higher motivational and metacognitive skills than the higher education students. In this study, binary regression results indicate that comfort with eLearning is the best predictor for future participation in MOOCs. Given the high student readiness for MOOCs in Oman in this study, some recommendations are provided for higher education institutions to benefit from the fast-moving MOOC phenomenon.


This research examines the effect of having a tracking technology in a learning management system (LMS) that reports the effect of perceiving other students’ interactions on a learner’s intention to keep using LMS in the future. The main underlying theory is herd behaviour theory which argues that crowd behaviour affects the perceptions of the observers. In this paper, we proposed and found that tracking technology will affect a learner’s perceptions of cognitive absorption and that perception of self-regulation from using an LMS. These perceptions are found to influence the learner’s intention to keep using the LMS in the future positively. This research developed a new tracking technology in response to weaknesses noted in the literature and validated by interviewing teachers. Its effects were tested on 151 university students taking a computer science module. This research contributes to knowledge by integrating herd behaviour theory into the design of LMS and offers a new perspective on learners’ interactions with educational technologies.


Abstract Providing coaching to participants in inquiry-based online discussions contributes to developing cognitive presence (CP) and higher-order thinking. However, a primary issue limiting quality and timely coaching is instructors’ lack of tools to efficiently identify CP phases in massive discussion transcripts and effectively assess learners’ cognitive development. This study examined a computational approach integrating text mining and co-occurrence analysis for assessing CP and cognitive development in online discussions based on the community of inquiry (CoI) framework. First, text classifiers trained on different language models were evaluated for identifying and coding the CP phases. Second, epistemic network analysis (ENA) was employed to model cognitive patterns reflected by co-occurrences between the coding elements. Results indicated that text classifiers trained on the state-of-the-art language model Bidirectional Encoder Representations from Transformers (BERT) can address the efficiency issue in coding CP phases in discussion transcripts and obtain substantial agreements (Cohen’s k = 0.76) with humans, which outperformed other baseline classifiers. Furthermore, compared to traditional quantitative content analysis, ENA can effectively model the temporal characteristics of online discourse and detect fine-grained cognitive patterns. Overall, the findings suggest a feasible path for applying learning analytics to tracking learning progression and informing theory-based assessments. Practitioner notes What is already known about this topic Cognitive presence is an important construct describing the progression of thinking in online inquiry-based discussions. Most studies used self-report instruments or quantitative content analysis to measure and assess cognitive presence. More efficient and effective approaches were needed by instructors to support
assessment of cognitive development and determine coaching strategies. What this paper adds An integrated computational approach for the developmental and formative assessment of cognitive presence was proposed and evaluated. A BERT-based text classification model could efficiently code massive transcripts and achieve substantial agreements with human coders. Epistemic network analysis effectively revealed the process of cognitive development and identified representative discussion patterns and behaviours. Implications for practice and/or policy The proposed approach can considerably reduce the pressure on instructors, enabling them to focus on quality coaching and feedback. Compared to frequencies of individual codes, the connective features between codes carry more insights for assessing cognitive patterns. Learners in a discussion group play different roles and produce diverse paths of cognitive development.

Baruth, O., & Cohen, A. (2023). Personality and satisfaction with online courses: The relation between the Big Five personality traits and satisfaction with online learning activities. Education and Information Technologies, 28(1), 879-904. https://doi.org/10.1007/s10639-022-11199-x

Online courses have become widespread in higher education. Yet, despite their prevalence, they may not suit all learners. Personality influences learner satisfaction and therefore affects learning experience. This study explores the relation between personality traits (using Costa & McCare’s Big-Five model) and student satisfaction with various of learning activities offered in online courses, called Techno-Pedagogical Learning Solutions (TPLS). The tested TPLS were discussion groups, digital books, online assignments, surveys/polls and media. Questionnaires were used to measure personality types and satisfaction of 108 university students enrolled in a credited online academic course. Significant correlations were found between all five personality traits and satisfaction with several TPLS. Cluster analysis method was applied to identify learners with similar personality traits. Four groups were formed and group’s satisfaction score was measured. It was found that learners assigned to the « neurotic » group exhibited low satisfaction with all TPLS, contrary to learners assigned to the « non-neurotic » group. The findings clearly indicate that personality plays a significant role in online learner satisfaction. Thus, personality traits should be considered when designing learning activities for online courses. Such personality-based personalization may ensure that no learner is left behind, regardless of his/her attitude toward online learning.


Educational data mining is an emerging interdisciplinary research area involving both education and informatics. It has become an imperative research area due to many advantages that educational institutions can achieve. Along these lines, various data mining techniques have been used to improve learning outcomes by exploring large-scale data that come from educational settings. One of the main problems is predicting the future achievements of students before taking final exams, so we can proactively help students achieve better performance and prevent dropouts. Therefore, many efforts have been made to solve the problem of student performance prediction in the context of educational data mining. In this paper, we provide readers with a comprehensive understanding of student performance prediction and compare approximately 260 studies in the last 20 years with respect to i) major factors highly affecting student
performance prediction, ii) kinds of data mining techniques including prediction and feature selection algorithms, and iii) frequently used data mining tools. The findings of the comprehensive analysis show that ANN and Random Forest are mostly used data mining algorithms, while WEKA is found as a trending tool for students' performance prediction. Students' academic records and demographic factors are the best attributes to predict performance. The study proves that irrelevant features in the dataset reduce the prediction results and increase model processing time. Therefore, almost half of the studies used feature selection techniques before building prediction models. This study attempts to provide useful and valuable information to researchers interested in advancing educational data mining. The study directs future researchers to achieve highly accurate prediction results in different scenarios using different available inputs or techniques. The study also helps institutions apply data mining techniques to predict and improve student outcomes by providing additional assistance on time.


Decision-making is key for teaching, with informed decisions promoting students and teachers most effectively. In this study, we explored data-driven decision-making processes of K-12 teachers (N=302) at times of emergency remote teaching, as experienced during the COVID-19 pandemic outbreak in Israel. Using both quantitative and qualitative methodologies, and a within-subject design, we studied how teachers' data use had changed during COVID-19 days, and which data they would like to receive for improving their decision-making. We based our analysis of the data on the Universal Design of Learning (UDL) model that characterizes the diverse ways of adapting teaching and learning to different learners as a means of understanding teachers' use of data. Overall, we found a decline in data use, regardless of age or teaching experience. Interestingly, we found an increase in data use for optimizing students' access to technology and for enabling them to manage their own learning, two aspects that are strongly connected to remote learning in times of emergency. Notably, teachers wished to receive a host of data about their students' academic progress, social-emotional state, and familial situations.


Abstract As universities around the world have begun to use learning management systems (LMSs), more learning data have become available to gain deeper insights into students’ learning processes and make data-driven decisions to improve student learning. With the availability of rich data extracted from the LMS, researchers have turned much of their attention to learning analytics (LA) applications using educational data mining techniques. Numerous LA models have been proposed to predict student achievement in university courses. To design predictive LA models, researchers often follow a data-driven approach that prioritizes prediction accuracy while sacrificing theoretical links to learning theory and its pedagogical implications. In this study, we argue that instead of complex variables (e.g., event logs, clickstream data, timestamps of learning activities), data extracted from online formative assessments should be the starting point for building predictive LA models. Using the LMS data from multiple offerings
of an asynchronous undergraduate course, we analysed the utility of online formative assessments in predicting students’ final course performance. Our findings showed that the features extracted from online formative assessments (e.g., completion, timestamps and scores) served as strong and significant predictors of students’ final course performance. Scores from online formative assessments were consistently the strongest predictor of student performance across the three sections of the course. The number of clicks in the LMS and the time difference between first access and due dates of formative assessments were also significant predictors. Overall, our findings emphasize the need for online formative assessments to build predictive LA models informed by theory and learning design.

Practitioner notes

What is already known about this topic

Higher education institutions often use learning analytics for the early identification of low-performing students or students at risk of dropping out. Most predictive models in learning analytics rely on immutable student characteristics (e.g., gender, race and socioeconomic status) and complex variables extracted from log data within a learning management system. Prioritizing prediction accuracy without theory orientation often yields “black-box” models that fail to inform educators on what remedies need to be taken to improve student learning.

What this paper adds

Predictive models in learning analytics should consider learning theory, pedagogy and learning design to identify key predictors of student learning. Online formative assessments can be a starting point for building predictive models that are not only accurate but also provide educators with actionable insights on how student learning can be improved. Time-related and score-related features extracted from online formative assessments are particularly useful for predicting students’ course performance.

Implications for practice and/or policy

This study provides strong evidence for using online formative assessments as the foundation for predictive models in learning analytics. Student data from online formative assessments can help educators provide students with feedback while informing future formative assessment cycles. Higher education institutions should avoid the hype around complex data from learning management systems and instead rely on effective learning tools such as online formative assessments to revolutionize the use of learning analytics.


Dans quels environnements les chargés d’ingénierie pédagogique exercent-ils aujourd’hui et comment cette activité a-t-elle évolué ? En quoi la diffusion du numérique dans la formation professionnelle continue nécessite-t-elle la mise en œuvre de capacités spécifiques dans la conception de formation ? L’objectif de la thèse est de repérer, dans différents contextes et situations, la manière dont des personnes en charge d’ingénierie pédagogique sont mises en capacité d’utiliser le numérique en formation continue des adultes. La revue de question sur la professionnalisation digitale de la formation et de ses acteurs montre que les recherches portent principalement sur le développement professionnel dans l’enseignement supérieur en lien avec les TICE. La revue de la littérature scientifique sur l’ingénierie pédagogique situe cette dernière comme une activité distribuée qui s’est complexifiée avec le développement du numérique en formation. Pour étudier la digitalisation de l’ingénierie pédagogique, nous adoptons une démarche inductive à partir de deux corpus : 212 offres de stages en ingénierie pédagogique et des parcours professionnels de chargé-e-s d’ingénierie pédagogique (entretiens auprès de 21 professionnel-le-s et spécialistes). Le premier
corpus nous permet de mettre au jour les activités formelles et les profils attendus par les entreprises en ingénierie pédagogique, ainsi que la part croissante du numérique dans ces activités, le second corpus de montrer comment les professionnels sont effectivement mis en capacité d’introduire le numérique dans leur ingénierie, en termes de ressources, d’opportunité et de choix. Sur le plan méthodologique, nous mobilisons le cadre de l’approche par les capacités, issu initialement des travaux de Sen (1999b).


This study aims to explore the significant variables affecting online knowledge-sharing and the hierarchical structure, from the perspective of online learners. To comprehensively discuss the relationship between these variables, binary logit regression and interpretative structural model (ISM) was used. Based on literature analysis, the data of 29 candidates were obtained, and 670 valid data was acquired through an electronic questionnaire. A total of 13 significant variables were also obtained using the Logit model of SPSS 22, with an 8-layer ISM program established by MATLAB 2017A software. The results showed that six of the 13 variables had positive effects on online knowledge-sharing behavior, with the remaining seven having a negative impact. The ISM model also proved that trust and delete/block, reward, and the remaining elements were shallow, deep, and intermediate variables, respectively. Combining the Logit and ISM advantages, these results strengthened the reports on online knowledge-sharing behavior, subsequently obtaining five suggestions for its development. This study is expected to help teachers and online course developers design better digital programs, as well as ensure the accurate decision-making of students in knowledge sharing activities.


This study investigated the motivation of Taiwanese undergraduate EFL students in learning English-to-Chinese translation and the intention to use a digital game-based learning app called CHEN-slate. The app, consisting of a learning zone, practice zone, and competition zone and including translation skills needed for actual translation practice, was developed as a supportive learning tool to equip students with the necessary translation skills and to enhance their translation experiences. This study was conducted in spring semester in 2020. The responses to a questionnaire, designed based on theories including Dörnyei’s L2 motivational self-system and the technology acceptance model, were analyzed quantitatively and qualitatively to identify the most prevalent type of motivation among students to learn English-to-Chinese translation (one-way repeated-measures ANOVA), students’ perception toward the use of CHEN-slate, and the relationship between students’ intention to use CHEN-slate and their learning motivation (linear regression analysis). Moreover, the pre-test and post-test variables were compared by using a paired-sample t test. The results of the study indicated that achieving the ideal self-image and translation learning experience are the most prevalent motivation types that encourage Taiwanese students to learn translation. The findings of this study also indicate that students have positive attitudes toward the adoption of CHEN-slate and have high intention to use the app facilitate their learning process. Finally, a significant positive relationship was found between students’ intention
to use the app and their translation learning experience. This study offers pedagogical implications for instructors in translation courses to enhance students’ learning motivation and effectively use game-based learning apps in translation courses.


Recent advances in sensor technology, including eye-gaze tracking, have introduced the opportunity to incorporate gaze into student modelling within an embodied learning context. The produced multimodal data is used to uncover cognitive, behavioural, and affective processes during the embodied learning activity. However, the use of eye-tracking data presenting visual attention to understand students’ behaviours and learning performance during engagement with tangible learning activity is rather unexplored. Therefore, this paper explores the integration of eye-gaze features to predict students’ learning performance during an embodied activity. We present an in-situ study where 110 primary school students (aged 8–9 years), solved a tangible learning activity for learning human body anatomy. During the experiment, students’ learning experience was monitored by collecting their eye-tracking data, learning profiles, academic performances, and time to complete the activity. We applied predictive modelling to identify the synergies between eye-gaze features and students’ learning performance. The obtained results suggest that combining eye-gaze tracking with learning traces and behaviour attributes may support an accurate prediction of students’ learning performance. This research sheds light on the opportunities offered in the intersection of eye-gaze tracking with learning traces, and its possible contribution to investigating students’ behaviour within an embodied learning context.


To ensure the validity of an assessment programme, it is essential to align it with the intended learning outcomes (LO). We present a model for ensuring assessment validity which supports this constructive alignment and uses learning analytics (LA). The model is based on LA that include a comparison between ideal LO weights (expressing the prioritization of LOs), actual assessment weights (maximum assessment points per LO), and student assessment results (actually obtained assessment points per LO), as well as clustering and trace data analysis. These analytics are part of a continuous improvement cycle, including strategic planning and learning design (LD) supported by LO prioritization, and monitoring and evaluation supported by LA. To illustrate and test the model, we conducted a study on the example of a graduate-level higher education course in applied mathematics, by analysing student assessment results and activity in a learning management system. The study showed that the analyses provided valuable insights with practical implications for the development of sound LD, tailored educational interventions, databases of assessment tasks, recommendation systems, and self-regulated learning. Future research should investigate the possibilities for automation of such LA, to enable full exploitation of their potential and use in everyday teaching and learning. Practitioner notes What is already known about this topic To develop sound, student-centred learning design (LD), it is essential to ensure that assessment is constructively aligned with the intended learning outcomes (LO). This constructive alignment is crucial for ensuring the validity of an assessment program. Learning analytics
(LA) can provide insights that help develop valid assessment programs. What this paper adds As not all LOs are equally important, assessment programs should reflect the prioritization of LOs, which can be determined by using various multi-criteria decision-making (MCDM) methods. This article presents and illustrates, based on an empirical case, a model of continuous improvement of LD, which uses LA to compare how LOs are reflected in (actual) students’ results, in an (actual) assessment program, and in the (ideal) prioritization of LOs based on MCDM. The study presents how clustering of students based on their assessment results can be used in LA to provide insights for educational interventions better targeted to students’ needs. Implications for practice and/or policy The proposed LA can provide important insights for the development (or improvement) of LD in line with the intended course LOs, but also study program LOs (if course and study program LOs are properly aligned). The LA can also contribute to the development of databases of assessment tasks aligned with course LOs, with ensured validity, supporting sharing and reusing, as well as to the development of tailored educational interventions (eg, based on clustering). The proposed LA can also contribute to the development of recommendation systems, with recommendations for the improvement of LD for teachers or learning suggestions for students, as well as students’ meta-cognition and self-regulated learning.


Game based learning have been widely promoted to overcome the difficulties encountered by beginners to learn programming. However, there are many issues to address for the implementation of game-based learning. Indeed, game-based learning is not limited to adding game elements such as rewards to a learning situation, but it rather consists of transforming the learning situation so that it becomes playful. This work contributes to computer science education research, especially to game design for learning programming. We design a novel environment dedicated to learning object-oriented programming for beginners called Progo. It is based on a metaphor of a three-dimensional (3D) construction and animation game. We present an a priori analysis of the Progo environment on the basis of a didactic transposition framework. The framework highlights the ludicisation and metaphorisation process by which educational content is integrated into the game. This allows for the analysis of the transformation of the computing knowledge by the game design, and to verify whether analogies are maintained between the knowledge and what the learner should experience through play. This work contributes to a framework for the integration of educational content during learning game design.


Collaborative design approaches have been increasingly adopted in the design of learning technologies since they contribute to develop pedagogically inclusive and appropriate learning designs. Despite the positive reception of collaborative design strategies in technology-enhanced learning, little attention has been dedicated to analyzing the challenges faced in design processes using a collaborative approach. In this paper, we disclose the collaborative design of a chatbot for self-regulated learning in higher education using an action research approach. We analyze the design process of EDUguia chatbot, which includes diverse evidence from questionnaires and workshops with students and lecturers, as well as intermediary design objects. Based on the qualitative analysis, we identify several challenges that are transversal to the co-design work, as well as specific to the design phases. We critically reflect on the strategies deployed to overcome these challenges and how they relate to decision-making processes, highlighting the need to make stakeholders’ tacit knowledge explicit, cultivate trust-building and support democratic decision-making in technology design processes. We believe that the recommendations we present in this paper contribute to developing best practices in the collaborative design of chatbots for the self-regulation of learning, as well as learning technology in general.


Abstract Game-based learning environments hold significant promise for facilitating learning experiences that are both effective and engaging. To support individualised learning and support proactive scaffolding when students are struggling, game-based learning environments should be able to accurately predict student knowledge at early points in students' gameplay. Student knowledge is traditionally assessed prior to and after each student interacts with the learning environment with conventional methods, such as multiple choice content knowledge assessments. While previous student modelling approaches have leveraged machine learning to automatically infer students’ knowledge, there is limited work that incorporates the fine-grained content from each question in these types of tests into student models that predict student performance at early junctures in gameplay episodes. This work investigates a predictive student modelling approach that leverages the natural language text of the post-gameplay content knowledge questions and the text of the possible answer choices for early prediction of fine-grained individual student performance in game-based learning environments. With data from a study involving 66 undergraduate students from a large public university interacting with a game-based learning environment for microbiology, Crystal Island, we investigate the accuracy and early prediction capacity of student models that use a combination of gameplay features extracted from student log files as well as distributed representations of post-test content assessment questions. The results demonstrate that by incorporating knowledge about assessment questions, early prediction models are able to outperform competing baselines that only use student game trace data with no question-related information. Furthermore, this approach achieves high generalisation, including predicting the performance of students on unseen questions. Practitioner notes What is already known about this topic A distinctive characteristic of game-based learning environments is their capacity to enable fine-grained student assessment. Adaptive game-based learning environments offer individualisation based on specific student needs and should be able to assess student
competencies using early prediction models of those competencies. Word embedding approaches from the field of natural language processing show great promise in the ability to encode semantic information that can be leveraged by predictive student models. What this paper adds Investigates word embeddings of assessment question content for reliable early prediction of student performance. Demonstrates the efficacy of distributed word embeddings of assessment questions when used by early prediction models compared to models that use either no assessment information or discrete representations of the questions. Demonstrates the efficacy and generalisability of word embeddings of assessment questions for predicting the performance of both new students on existing questions and existing students on new questions. Implications for practice and/or policy Word embeddings of assessment questions can enhance early prediction models of student knowledge, which can drive adaptive feedback to students who interact with game-based learning environments. Practitioners should determine if new assessment questions will be developed for their game-based learning environment, and if so, consider using our student modelling framework that incorporates early prediction models pretrained with existing student responses to previous assessment questions and is generalisable to the new assessment questions by leveraging distributed word embedding techniques. Researchers should consider the most appropriate way to encode the assessment questions in ways that early prediction models are able to infer relationships between the questions and gameplay behaviour to make accurate predictions of student competencies.


Several instructional approaches have been advanced for learning programming. However, effective ways of engaging beginners in programming in K–12 are still unclear, especially among low socioeconomic status learners in technology-deprived learning environments. Understanding the learning path of novice programmers will bridge this gap and explain what constitutes an effective learning path for novice. Thirty-eight students from technology-deprived schools participated in a 10-h project-first constructionist learning. Using the Friedman test of repeated measures and Spearman’s rank correlation, trends in the students’ programming ability were evaluated. The findings showed that the students’ programming ability increased on the first day, remained stable throughout the intervention, and were not affected by either semantics or syntax of the Python programming language. However, the features of a program were inconclusive determinants of programming skills. The irregular patterns of programming concepts within and between the learners’ programming solutions suggest focusing on pedagogies that encourage project-first learning. A constructionist model of learning and the challenges educators may encounter amongst novice learners with low socioeconomic status are highlighted.


The increasing development in smart and mobile technologies transforms a learning environment into a smart learning environment that can support diverse learning styles and skills development. An online learner needs to be supported for an engaging and
active learning experience. Previously, this progressive research developed and implemented a self-regulated smart learning environment (mobile app) among final-year undergraduate students to support online learning experiences. To understand students' experiences, there is a need to evaluate the mobile app. However, there is a lack of a well-documented study investigating students' experiences in terms of usability, challenges, and factors influencing satisfaction to inform a decision regarding future implementation. This study attempts to fill these gaps by exploring these experiences for sustainable future implementation. The study used cyclical mixed-method evaluations to explore the experiences of 85 final-year undergraduate students. The quantitative data were collected using a survey on the constructs of the research model previously developed to evaluate factors influencing students' satisfaction, and the qualitative used focus group discussions to explore usability experiences and challenges of implementations. The quantitative data were analyzed using SPSS 25 to confirm the structural equation model's relationship. The qualitative data were analyzed using a thematic process to understand students' experiences. The findings from the first mixed-method evaluation show that students were able to follow the learning process, and the application supported their online learning experiences. However, a student expressed the need to improve user functionalities to motivate and engage them in the learning process. The suggestions were incorporated into the mobile app development for the second evaluation. The findings from the second evaluation revealed similar support. However, students suggested a web-based version to support different operating systems and improve interactions. Furthermore, the information system qualities and moderating factors investigated supported students' satisfaction. Future research could explore facilitators' experiences in the mobile app for sustainable development and implementation for engaging online learning experiences and skills development.


The purpose of this research is to study the effectiveness of using the specialized interactive environment Revit Architecture for creativity development. The study methodology relies on an empirical approach, including a sample of students from three Chinese colleges (n = 319) divided into two groups based on learning approach. Accordingly, the first group consisted of students who practiced their design skills under the conventional program (Group A) and the second group included students who additionally used Revit Architecture for their practice (Group B). The Torrance Tests of Creative Thinking (TTCT) facilitated the identification of the creative thinking development level among participants. The present paper also seeks to determine if there is a connection between creative thinking and design training program effectiveness in architecture education (null hypothesis). According to the final assessment results, Group B performed better than Group A; the difference in the average performance score was 10.9% between the two groups. As a result, it proves that interactive learning environments have a positive impact on the level of creativity skills development. Consequently, this study proves that using interactive learning environments in architectural design education contributes to better learning outcomes.

Garnier, P. (2022). *Chapitre 12: Cheminements d'enseignantes dans l'utilisation pédagogique de tablettes numériques auprès d’élèves avec un trouble du spectre de*

Interdisciplinary team communication in eHealth development is challenging because all disciplines have unique, intrinsic discursive practices, theories and artefacts. Due to these factors, members of interdisciplinary teams can experience problems in communication and collaboration. Through a centered focus, members can benefit individually, inspire one another, and ultimately reach a timely delivery of their common pedagogical goal(s). Using the lens of dialogism, this paper aims to identify the conceptual considerations that arose during the development of a Massive Open Online Course (MOOC) for higher education in eHealth. Methods included auto-ethnography and interdisciplinary dialogue supported by literacy artefacts, including visual material. Results yielded a visual tool for meta-assessment of team communication, and an organizing principle for topics in the MOOC. A major implication is that especially for eHealth, scientific communicative competence of experts—while establishing a common understanding—can lead to a unique and meaningful delivery of high pedagogical quality.


Quelles sont actuellement les principales initiatives mondiales de développement de certifications numériques et de dossiers d’apprentissage et d’emploi (« Learning and employment records » - RELs) ? Où sont-elles situées ? Quelles sont les principales parties prenantes impliquées et quels problèmes tentent-elles de résoudre ? Ce rapport examine de quelle manière les certifications numériques et les dossiers d’apprentissage et d’emploi facilitent l’accès à l’éducation et à l’emploi dans le monde. Il présente un cadre conceptuel destiné à faciliter leur développement. Ce cadre s’appuie sur trois principes clés de la Convention mondiale sur l’enseignement supérieur - équité, souveraineté et mobilité – ainsi qu’un quatrième principe, la confiance. Chaque principe comprend des recommandations favorisant le développement d’écosystèmes technologiques éducatifs plus éthiques et plus équitables.

Grassin, J.-F. (2022, juillet 6). A video conferencing platform as a co-constructed learning space: a spatial analysis. Présenté à Colloque IMPEC 2022. L’espace au prisme des écrans. Consulté à l’adresse [https://hal.science/hal-03907445](https://hal.science/hal-03907445)

Les cours de langues dans des environnements numériques hybrides et/ou en ligne se sont développés ces derniers temps, voire systématisés depuis la crise du COVID-19. Les cours de langue se sont donc déplacés de la salle de cours physique à d’autres espaces d’enseignement/apprentissage en ligne. Alors que nos espaces d’apprentissage évoluent, nous devons repenser notre conception de l’espace. Comment déterminer ce que nous entendons par espace spécifiquement dans ces environnements en ligne et comment examiner si nos intentions liées à l’apprentissage dans ces espaces sont pertinentes ? Bien que les chercheurs se soient déjà intéressés aux interactions en ligne dans des situations d’apprentissage par visioconférence (Peraya et Dumont, 2003 ;
Savarieau & Daguet, 2020, il y a encore peu de choses sur la façon dont les espaces d’apprentissage sont créés dans le déploiement des pratiques mêmes. La recherche-action en cours que nous évoquons ici concerne l’appropriation d’un espace de visioconférence par de futurs enseignants de Français Langue Etrangère et des enseignants en activités. La plateforme de visioconférence étudiée propose des espaces de travail organisés autour de tables et permettant le déplacement autonome des participants dans ces espaces. L’expérimentation consiste à étudier les affordances de l’environnement proposées par la plateforme Glowbl pour l’apprentissage des langues. On s’intéresse ainsi à l’ergonomie de la plateforme et aux formes d’actions affordées, et à savoir notamment si 1/ l’espace et les déplacements qui y sont permis, 2/ les formes de mises en présence (avatar et visio notamment), 3/ les formes de mise à disposition de ressources et d’objets pour le travail en commun, sont favorables à la construction d’un espace d’enseignement/apprentissage par les participants au projet.


The design of the flipped classroom (FC) as a pedagogical approach is becoming increasingly prevalent in mathematics education. However, although many studies have been conducted on whether FCs are more effective in improving mathematics achievement compared to traditional lectures, the results are not consistent. To address this issue, this meta-analysis examined the overall effect of flipped mathematics classrooms on student achievement, in addition to a set of moderating variables. Our analysis included thirty-seven experimental studies with forty effect sizes, comparing flipped and traditional classrooms in K-12 and tertiary mathematics education. The meta-analysis revealed an overall statistically significant FC effect of $g = 0.402$, indicating a marginally moderate effect size. The effect sizes were also significantly moderated by education level and mathematics content area. No evidence of publication bias was found in the data set. We concluded by discussing employment of the FC model in the contexts of mathematics education and offering suggestions for future research.


Machine Learning concept learns from experiences, inferences and conceives complex queries. Machine learning techniques can be used to develop the educational framework which understands the inputs from students, parents and with intelligence generates the result. The framework integrates the features of Machine Learning (ML), Explainable AI (XAI) to analyze the educational factors which are helpful to students in achieving career placements and help students to opt for the right decision for their career growth. It is supposed to work like an expert system with decision support to figure out the problems, the way humans solve the problems by understanding, analyzing, and remembering. In this paper, the authors have proposed a framework for career counseling of students using ML and AI techniques. ML-based White and Black Box models analyze the educational dataset comprising of academic and employability attributes that are important for the job placements and skilling of the students. In the proposed framework, White Box and Black Box models get trained over an educational dataset taken in the study. The Recall and F-Measure score achieved by the Naive Bayes
for performing predictions is 91.2% and 90.7% that is best compared to the score of Logistic Regression, Decision Tree, SVM, KNN, and Ensemble models taken in the study.

Si les réseaux sociaux multiplient les opportunités d’échanges entre diplômés et camarades de promotion, ils sont loin d’avoir remplacé les associations d’anciens.

Systematic evidence reviews draw together findings from multiple studies, helping researchers and decision makers to understand patterns of research and findings across varying contexts and research methodologies. They have become more popular over the last twenty years, with various guides discussing the different ways in which they can be conducted and the issues arising in this process. This case study of a systematic review of the factors shaping children’s digital skills explores the challenges, risks and potential strategies in this process, as those involved in that review reflect upon the various judgements involved in choosing inclusion criteria, filtering and coding studies and synthesising the material collected.

SELFIE (Self-reflection on effective learning by fostering innovation through educational technologies) est un outil européen gratuit, destiné à aider les établissements d’enseignement à intégrer les technologies numériques dans leurs méthodes d’enseignement, d’apprentissage et d’évaluation. Ses questionnaires interrogent les chefs d’établissement, les enseignants et les élèves sur l’utilisation des technologies numériques. Les compétences numériques des élèves varient-elles davantage au niveau national, régional, local ou au niveau individuel ? Quels sont les facteurs associés aux différences de compétences à chaque niveau ? Ce document de recherche montre que les compétences numériques des élèves sont associées aux les infrastructures numériques, à la pédagogie et aux évaluations. Les variations liées aux enseignants sont pour la plupart insignifiantes et les différences entre les pays ne sont pas importantes. C’est au niveau individuel que les différences sont les plus importantes.

SELFIE (Self-reflection on effective learning by fostering innovation through educational technologies) est un outil européen destiné à aider les établissements d’enseignement à intégrer les technologies numériques dans leurs méthodes d’enseignement, d’apprentissage et d’évaluation. Ce document se concentre sur l’utilisation de cet outil pour les établissements d’enseignement et de formation professionnels. En utilisant la psychométrie, il vise à valider SELFIE pour le secteur de l’EFP. Les auteurs constatent que
les questionnaires de l’outil sont très fiables. SELFIE contribue à la prise de décision fondée sur des données probantes dans le domaine de l’éducation.


Abstract Reading motivation can greatly impact reading comprehension, but it tends to diminish in and beyond elementary school. This study employs knowledge building pedagogy to advance reading motivation and comprehension in an elementary Chinese language arts class. Participants were twenty-four third graders who spent one class period (ie, 40 minutes) for 18 weeks in Knowledge Forum to study 10 lessons in a reading textbook. Data mainly came from: a reading motivation questionnaire, online interaction logs, online discourse and PILRS reading comprehension assessments. It was found that knowledge building enhanced children’s reading motivation (particularly in terms of reading competence) and reading comprehension (especially at the higher levels). Most students demonstrated spontaneous engagement in advanced online activities demanding high-level agency. A correlation was also identified between children’s motivation to read and more advanced online discourse behaviours requiring higher agency, leading to a deeper understanding of reading. Implications for fostering a motivated reading community that values collective knowledge advancement are discussed. Practitioner notes What is already known about this topic Innovating classroom-based instruction for enhancing learners’ reading motivation and comprehension has been an important challenge in reading education. Reading motivation is positively associated with reading comprehension but tends to diminish in and beyond elementary school. Technology-supported reading and learning are further enhanced by interactive online discussions among learners. Engaging learners in collective knowledge building activities can facilitate their reading comprehension. What this paper adds Learner engagement in knowledge building activities, particularly advanced online activities, is associated with higher reading motivation (especially intrinsic reading competence). The process analysis shows that learners’ online discourses focus more on higher-level reading comprehension with extended use of knowledge building pedagogy. Learners exhibit better reading comprehension across all levels of reading comprehension with the implementation of knowledge building pedagogy. Implications for practice and/or policy Knowledge building pedagogy, featuring assuming agency, working with ideas, and fostering community practices, can be a viable approach to reading motivation and comprehension. The design of digital platforms should aim not just to foster knowledge-acquiring and -sharing from reading but also to extend reading into knowledge building activities that highlight idea improvement.


A multitude of studies have suggested potential factors that influence internet security awareness (ISA). Some, for example, used GDP and nationality to explain different ISA levels in other countries but yielded inconsistent results. This study proposed an extended knowledge-attitude-behaviour (KAB) model, which postulates an influence of the education level of society at large is a moderator to the relationship between knowledge
and attitude. Using exposure to a full-time working environment as a proxy for the influence, it was hypothesized that significant differences would be found in the attitude and behaviour dimensions across groups with different conditions of exposure and that exposure to full-time work plays a moderating role in KAB. To test the hypotheses, a large-scale survey adopting the Human Aspects of Information Security Questionnaire (HAIS-Q) was conducted with three groups of participants, namely 852 Year 1–3 students, 325 final-year students (age = 18–25) and 475 full-time employees (age = 18–50) in two cities of China. MANOVA and subsequent PROCESS regression analyses found a significant negative moderating effect of work exposure, which confirmed the proposed model. However, the effect was more pervasive than expected and moderation was found in the interaction between work exposure and all three ISA dimensions. The social influence does not only reshape the cybersecurity attitude of the highly educated, but also knowledge and behaviour. Findings contribute theoretically, methodologically and practically, offering novel perspectives on ISA research and prompting new strategies to respond to human factors.


Automated writing evaluation (AWE) systems are developed based on interdisciplinary research and technological advances such as natural language processing, computer sciences, and latent semantic analysis. Despite a steady increase in research publications in this area, the results of AWE investigations are often mixed, and their validity may be questionable. To yield a deeper understanding of the validity of AWE systems, we conducted a systematic review of the empirical AWE research. Using Scopus, we identified 105 published papers on AWE scoring systems and coded them within an argument-based validation framework. The major findings are: (i) AWE scoring research had a rising trend, but was heterogeneous in terms of the language environments, ecological settings, and educational level; (ii) a disproportionate number of studies were carried out on each validity inference, with the evaluation inference receiving the most research attention, and the domain description inference being the neglected one, and (iii) most studies adopted quantitative methods and yielded positive results that backed each inference, while some studies also presented counterevidence. Lack of research on the domain description (i.e., the correspondence between the AWE systems and real-life writing tasks) combined with the heterogeneous contexts indicated that construct representation in the AWE scoring field needs extensive investigation. Implications and directions for future research are also discussed.


In the digitally empowered society, increased internet utilization leads to potential harm to the youth through cyberbullying on various social networking platforms. The cyberbullying stats keep on rising each year, leading to detrimental consequences. In response to this online threat, the Indian Government launched different helplines, especially for the children and women who need assistance, various complaint boxes, cyber cells, and made strict legal provisions to curb online offenses. This research evaluates the relevant initiatives. Additionally, a survey is conducted to get insights into cyberbullying in higher education institutions, discussing multiple factors responsible for
youth and adolescents being cyberbullied and a few measures to combat it in universities/colleges.


University students’ expectations of digital technologies in their studies are greatly influenced by their previous exposure both within the secondary school classroom and in their private lives. These expectations often play a powerful role in their approaches and learning strategies in their first-year university classes. In this work, we investigated students’ expectations and utilisation of digital technologies in their transition from high school to tertiary studies. A survey encompassing the Expectancy-Disconfirmation Paradigm was conducted amongst second year students across the university. The results showed students expected to use advanced IT technologies and equipment at university. The high expectations were similar regardless of demographic parameters, such as gender, school type or field of studies. The findings also indicated that most students perceived little disconnection between the technology they used in high school and that of university. The majority of students seemed satisfied and even positively surprised by the use of technology in their university courses.


The application of augmented reality games (ARG) as an emerging innovative technology has become a significant component of instructional learning contexts in recent years. ARG-based education as a form of student-centered learning situates students in a learning environment that integrates virtual elements with physical environments through three-dimensional pictures and videos on mobile devices for educational purposes. To connect the use of digital tools into the language classrooms and allow learners to view the real world, this study examined the viability of ARG-enhanced education on English foreign language (EFL) learners’ learning of giving and asking for directions in flipped and blended contexts. The study involved 60 EFL elementary students of homogenous English proficiency, organized into two comparative and one control group, with 20 participants in each group. For the pre-test, an 18-item multiple-choice test with one written and oral question was administered to assess the learners’ knowledge of asking for and giving directions. After taking the pre-test, the two comparative groups received 16 sessions of ARG-enhanced education (one with a blended and the other with a flipped classroom approach), while the control group received placebo instructions. The flipped group received the instructional materials preceding the online group, while the blended group received instruction in both online and face-to-face classes. The control group received instruction in a face-to-face context. After 8-weeks of treatment sessions, all participants of the study took the post-test. According to the results, both flipped and blended groups receiving ARG-enhanced education performed better than the control group in learning how to give and ask for directions. The results of this study may pave the way for EFL teachers and students to use ARG-based technology in online and traditional classes.

Abstract: Game-based assessment (GBA), a specific application of games for learning, has been recognized as an alternative form of assessment. While there is a substantive body of literature that supports the educational benefits of GBA, limited work investigates the validity and generalizability of such systems. In this paper, we describe applications of learning analytics methods to provide evidence for psychometric qualities of a digital GBA called Shadowspect, particularly to what extent Shadowspect is a robust assessment tool for middle school students’ spatial reasoning skills. Our findings indicate that Shadowspect is a valid assessment for spatial reasoning skills, and it has comparable precision for both male and female students. In addition, students’ enjoyment of the game is positively related to their overall competency as measured by the game regardless of the level of their existing spatial reasoning skills. Practitioner notes: What is already known about this topic: Digital games can be a powerful context to support and assess student learning. Games as assessments need to meet certain psychometric qualities such as validity and generalizability. Learning analytics provide useful ways to establish assessment models for educational games, as well as to investigate their psychometric qualities. What this paper adds: How a digital game can be coupled with learning analytics practices to assess spatial reasoning skills. How to evaluate psychometric qualities of game-based assessment using learning analytics techniques. Investigation of validity and generalizability of game-based assessment for spatial reasoning skills and the interplay of the game-based assessment with enjoyment. Implications for practice and/or policy: Game-based assessments that incorporate learning analytics can be used as an alternative to pencil-and-paper tests to measure cognitive skills such as spatial reasoning. More training and assessment of spatial reasoning embedded in games can motivate students who might not be on the STEM tracks, thus broadening participation in STEM. Game-based learning and assessment researchers should consider possible factors that affect how certain populations of students enjoy educational games, so it does not further marginalize specific student populations.


Nowadays, hardly anyone working in the field of foreign language teaching and learning can imagine life without machine translation (MT) tools. Thanks to the rapid development of artificial intelligence, MT now most widely assumes a new form, the so-called Neural Machine Translation (NMT), which offers the potential for a wide application in foreign language learning (FLL). Therefore, the purpose of this review study is to explore different approaches to the efficient implementation of NMT into FLL and provide specific pedagogical implications for best practices. The PRISMA methodology for systematic reviews and meta-analyses was strictly followed. The search was conducted in two well-established databases, specifically Scopus and Web of Science, to generate sufficient data from research articles for further analysis. The findings of this systematic review indicate that NMT is an efficient tool for developing both productive (speaking and writing) and receptive (reading and listening) language skills, including mediation skills,
which are relevant for translation. Moreover, the results show that NMT tools are especially suitable for advanced learners of L2, whose higher proficiency level enables them to critically reflect on the output of NMT texts more than beginners or lower-intermediate learners. Thus, the findings of this review study reveal that NMT has valuable implications for L2 pedagogy since it can serve as a very powerful online reference tool for FLL provided that teachers introduce students to its benefits but also limitations by implementing various teaching approaches.


This article reports on a trace-based assessment of approaches to learning used by middle school aged children who interacted with NASA Mars Mission science, technology, engineering and mathematics (STEM) games in Whyville, an online game environment with 8 million registered young learners. The learning objectives of two games included awareness and knowledge of NASA missions, developing knowledge and skills of measurement and scaling, applying measurement for planetary comparisons in the solar system. Trace data from 1361 interactions were analysed with nonparametric multidimensional scaling methods, which permitted visual examination and statistical validation, and provided an example and proof of concept for the multidimensional scaling approach to analysis of time-based behavioural data from a game or simulation. Differences in approach to learning were found illustrating the potential value of the methodology to curriculum and game-based learning designers as well as other creators of online STEM content for pre-college youth. The theoretical framework of the method and analysis makes use of the Epistemic Network Analysis toolkit as a post hoc data exploration platform, and the discussion centres on issues of semantic interpretation of interaction end-states and the application of evidence centred design in post hoc analysis. Practitioner notes What is already known about this topic Educational game play has been demonstrated to positively affect learning performance and learning persistence. Trace-based assessment from digital learning environments can focus on learning outcomes and processes drawn from user behaviour and contextual data. Existing approaches used in learning analytics do not (fully) meet criteria commonly used in psychometrics or for different forms of validity in assessment, even though some consider learning analytics a form of assessment in the broadest sense. Frameworks of knowledge representation in trace-based research often include concepts from cognitive psychology, education and cognitive science. What this paper adds To assess skills-in-action, stronger connections of learning analytics with educational measurement can include parametric and nonparametric statistics integrated with theory-driven modelling and semantic network analysis approaches widening the basis for inferences, validity, meaning and understanding from digital traces. An expanded methodological foundation is offered for analysis in which nonparametric multidimensional scaling, multimodal analysis, epistemic network analysis and evidence-centred design are combined. Implications for practice and policy The new foundations are suggested as a principled, theory-driven, embedded data collection and analysis framework that provides structure for reverse engineering of semantics as well as pre-planning frameworks that support creative freedom in the processes of creation of digital learning environments.

Chatbots hold the promise of revolutionizing education by engaging learners, personalizing learning activities, supporting educators, and developing deep insight into learners' behavior. However, there is a lack of studies that analyze the recent evidence-based chatbot-learner interaction design techniques applied in education. This study presents a systematic review of 36 papers to understand, compare, and reflect on recent attempts to utilize chatbots in education using seven dimensions: educational field, platform, design principles, the role of chatbots, interaction styles, evidence, and limitations. The results show that the chatbots were mainly designed on a web platform to teach computer science, language, general education, and a few other fields such as engineering and mathematics. Further, more than half of the chatbots were used as teaching agents, while more than a third were peer agents. Most of the chatbots used a predetermined conversational path, and more than a quarter utilized a personalized learning approach that catered to students' learning needs, while other chatbots used experiential and collaborative learning besides other design principles. Moreover, more than a third of the chatbots were evaluated with experiments, and the results primarily point to improved learning and subjective satisfaction. Challenges and limitations include inadequate or insufficient dataset training and a lack of reliance on usability heuristics. Future studies should explore the effect of chatbot personality and localization on subjective satisfaction and learning effectiveness.


Abstract Traditional item analyses such as classical test theory (CTT) use exam-taker responses to assessment items to approximate their difficulty and discrimination. The increased adoption by educational institutions of electronic assessment platforms (EAPs) provides new avenues for assessment analytics by capturing detailed logs of an exam-taker’s journey through their exam. This paper explores how logs created by EAPs can be employed alongside exam-taker responses and CTT to gain deeper insights into exam items. In particular, we propose an approach for deriving features from exam logs for approximating item difficulty and discrimination based on exam-taker behaviour during an exam. Items for which difficulty and discrimination differ significantly between CTT analysis and our approach are flagged through outlier detection for independent academic review. We demonstrate our approach by analysing de-identified exam logs and responses to assessment items of 463 medical students enrolled in a first-year biomedical sciences course. The analysis shows that the number of times an exam-taker visits an item before selecting a final response is a strong indicator of an item’s difficulty and discrimination. Scrutiny by the course instructor of the seven items identified as outliers suggests our log-based analysis can provide insights beyond what is captured by traditional item analyses. Practitioner notes What is already known about this topic Traditional item analysis is based on exam-taker responses to the items using mathematical and statistical models from classical test theory (CTT). The difficulty and discrimination indices thus calculated can be used to determine the effectiveness of each item and consequently the reliability of the entire exam. What this paper adds Data extracted from exam logs can be used to identify exam-taker behaviours which complement classical test theory in approximating the difficulty and discrimination of an
item and identifying items that may require instructor review. Implications for practice and/or policy Identifying the behaviours of successful exam-takers may allow us to develop effective exam-taking strategies and personal recommendations for students. Analysing exam logs may also provide an additional tool for identifying struggling students and items in need of revision.

Liang, Z., Mu, L., Chen, J., & Xie, Q. (2023). Graph path fusion and reinforcement reasoning for recommendation in MOOCs. *Education and Information Technologies, 28*(1), 525-545. [https://doi.org/10.1007/s10639-022-11178-2](https://doi.org/10.1007/s10639-022-11178-2)

In recent years, online learning methods have gradually been accepted by more and more people. A large number of online teaching courses and other resources (MOOCs) have also followed. To attract students’ interest in learning, many scholars have built recommendation systems for MOOCs. However, students need a variety of different learning resources, such as courses, videos, concepts, etc., and it is difficult to find suitable resources by themselves. So we propose a resource recommendation method called Multi-path Embedding and User-centric Reasoning (MEUR), which embeds multiple paths and searches with users as the center, innovatively combining the advantages of graph convolution network and reinforcement learning, ultimately shows the path of the knowledge graph. First, we put forward the problem to solve, which is to recommend multiple types of learning resources for users at the same time and show the corresponding reasoning path as the reason for the recommendation. Second, we propose an embedding model that integrates multi-path and graph convolution network, embedding entities in the knowledge graph into vectors. Third, we use reinforcement learning and combine user-centric reasoning to make recommendations for users. Finally, we use datasets from a real MOOC platform to evaluate our model through experiments and compare it with other methods.


This article presents a study of an educational experiment conducted at the early childhood education programme at UiT, the Arctic University of Norway. As COVID-19 made social distancing an issue, the traditional practicum in kindergartens was moved to online platforms. Constructive alignment was used as an analytical framework to investigate the possibilities and limitations of student teachers’ learning outcomes in a collaborative online learning activity. Overall, 8 out of 9 practicum teachers found the online practicum form a better alternative than supplying the student teacher with a written assignment, and 72.7% of the student teachers agreed or somewhat agreed with facilitating learning outcomes from the online practicum regardless of social distancing. The need for professional digital competence is central, as digital technology is not simply part of pedagogical practices but is becoming an integrated part of communicating and collaborating with colleagues and parents. This study broadens the understanding of how collaborative online learning can facilitate unintended valuable learning outcomes and critically debates the limitations related to emphasising a too-strong focus on intended learning outcomes as a premise for constructive alignment in education.

This paper introduces a computer application, based on The Alphabet Game, designed to assist students of all disciplines understand the key academic concepts used in their respective fields, with specific application to economics and the study of national accounts. This approach offers a valuable contribution, in view of the difficulties often encountered in presenting key national accounting concepts in a dynamic and appealing manner. Due to the flexibility of the application, it can also be adapted to other fields of knowledge requiring the use of specialized or technical concepts. To assess the game’s impact on enhancing learning, students of national accounts in economics were asked to assess their participation by means of an attitudinal survey focusing on motivation, quality of learning, and the effective use of time. The survey was completed by 60 students from two Spanish universities. The overall assessment of the game was strongly correlated with its contribution to the memorization of concepts, usefulness, and enjoyment ability. The second evaluation assessed the impact of the game through measurement of its effect on academic performance, with students’ academic records related to the scores from both individual and group gameplay. The assessment was done using a multivariate analysis consisting of a set of semi-logarithmic regression models in which the exam score was the dependent variable and a combination of game results according to the version played (individual, group, or both) were the explanatory variables. All combinations indicated that the individual game is much more strongly related to overall academic performance than the group score. However, to better assess the game, a control group, homogeneous samples, or pre- and post-tests should be used. Finally, to improve the game’s impact on learning, it can be used as a compulsory scoring activity, or a badge system could be implemented. Nonetheless, this tool should only be understood as an inextricable part of other assessment and learning activities.


Financé par le Royaume de Bahreïn, le Prix UNESCO-Roi Hamad bin Isa Al-Khalifa a été créé en 2005 afin de récompenser des innovations qui, dans le domaine de l’enseignement et de l’apprentissage, emploient les technologies pour améliorer l’éducation. Cette publication présente les 24 projets issus de 19 pays primés entre 2006 à 2020. Les auteurs montrent comment ces projets se sont emparés des principaux défis en matière d’éducation, ont priorisé les groupes les plus marginalisés utilisé des solutions numériques pour le bien commun.


Mobile learning and gamification are becoming increasingly popular, especially in education. Numerous researches suggest that mobile learning apps with gamification can improve student learning. However, there are fewer studies that analyze the gamification effects and usability of mobile apps for middle-aged women. The aim of this study is to propose a new mobile learning app with gamification aspects for the use
of middle-aged women in memorizing Arabic words. In the preliminary study, pre and post-tests were conducted to determine the effect of the use of the gamification application on 61 middle-aged women using Kahoot! game. The results from the Kahoot! game shows that participants enjoy learning and can memorize Arabic words effectively, indicating that gamification can motivate learning among middle-aged women. Then the usability of a new mobile app prototype containing learning notes and quizzes for user self-learning purposes was evaluated using three (3) criteria namely effectiveness, efficiency, and satisfaction. The considered indicators to measure the application's effectiveness are (a) tapping behaviour (number of taps used to perform a specific task), (b) number of attempts (how many times users tried to complete the task successfully), and (c) quiz score (score obtained by user after self-learning using the mobile app). Two variables were used to measure the efficiency of the application: the duration of task completion and the number of requests for help. In order to evaluate the satisfaction, a questionnaire was used to determine how respondents rated the mobile app’s usability. The usability evaluation results show that the proposed mobile app was effective as users could utilize all the modules provided and successfully answer the quiz questions.


The adaptation of traditional systems to service-oriented architectures is very frequent, due to the increase in technologies for this type of architecture. This has led to the construction of frameworks or methodologies for adapting computational projects to service-oriented architecture (SOA) technology. In this work, a framework for adaptation to SOA in an educational organization is presented, through a specific case of adaptation of an autonomous recommendation system. The framework has a business model that extracts the specific needs of the organization and that will help to project the service architecture from an administrative perspective for a generation of value. The framework has components that conform to the organizational governance of Information Technology (IT) linked to the control mechanisms managed by any IT government of the organization. Finally, the framework has a self-management process that integrates intelligent mechanisms or paradigms for any autonomous process that manages the SOA. In general, the framework describes a methodological process of four general phases, allowing to identify requirements, design services, develop them, and deploy them in an organization, to be managed through control mechanisms through governance. The framework was tested in the adaptation of an autonomous recommendation system for virtual learning environments (VLE), which has two main processes, the creation of an academic course and the use of the course.

Moreau, C., & Arneton, M. (2022, octobre 20). *La réalité virtuelle au service d’une situation de handicap partagée en formation*. Présenté à *La formation à distance, résolument ? / Distance education: a brave new world ?* Consulté à l’adresse [https://hal-inshea.archives-ouvertes.fr/hal-03887898](https://hal-inshea.archives-ouvertes.fr/hal-03887898)

Le projet VetReality questionne l’intérêt potentiel que peut fournir la réalité virtuelle dans l’encouragement des mobilités étudiantes par les enseignants et les formateurs en filières professionnelles ou professionnalisantes. Ce projet financé dans le cadre de l’agence européenne Erasmus+ a été lancé avant la pandémie mais l’intérêt de son objet d’étude a crû au fur à mesure que les mobilités de chacun se sont réduites. En effet, pensée
initiallement pour inclure dès le départ la réponse aux besoins éducatifs particuliers des étudiants en situation de handicap, la conduite à tenir face à la situation sanitaire liée au covid-19 a permis de porter un regard singulier sur la pertinence de la réalité virtuelle en formation (Chevalier, 2020). Ainsi, lors des différentes phases de la pandémie, lors des confinements ou lors des fortes vagues de contamination de la population, le concept d’accessibilité des formations ne concernait non plus une minorité d’étudiants mais bien une majorité de la population. Chacun d’entre nous vivait une situation de handicap propre : en se trouvant dans une situation nouvelle privée de mobilités, d’échanges, de communications... C’est au travers ce prisme d’observation que portera le témoignage analytique de la conduite d’un projet mené avec et pour les acteurs de la formation professionnelle. Nous décrirons tout d’abord dans cette contribution les leviers et les obstacles auxquels peuvent être confronté les utilisateurs de la réalité virtuelle lors de la mise en place d’une formation. La dimension expérimentale dans le recours à des technologies éducatives dans la formation de formateurs sera évoquée (O’Sullivan, Bird et Marshall, 2021). Nous mentionnerons aussi l’intérêt et les difficultés de proposer des applications de réalité virtuelle correspondant au projet (e.g. Chiron, Guidoni-Stoltz et Mayen, 2019 ; Ferrand et Sarralié, 2018 ; Mengue-Topio, Courbois et Sockeel, 2015). Nous aborderons ensuite la dimension européenne du projet et ces effets sur la conception d’un programme de formation nécessitant de prendre en compte les spécificités des partenariats de l’accompagnement à la destination d’étudiants en situation de handicap. Concevoir un projet de mobilité de formation mobilise en effet les entreprises de stage, les centres de formation ainsi que les structures d’accompagnement linguistiques et culturelles. De plus, quand les élèves présentent des besoins spécifiques, la collaboration nécessite également de solliciter les partenaires des pays d’accueil et de départ. Il peut s’agir en fonction des pays et des territoires d’associations, coopératives, associations à but non lucratif ou encore de centres de formation (Pallisera & al., 2018 ; Poirier et al., 2020). Dans une approche de didactique professionnelle (Pastré, Mayen et Vergnaud, 2006), nous analyserons subséquemment la médiation des savoirs opérée auprès des formateurs par le prisme de la mise en place et du déroulement d’une formation hybride pendant laquelle quatre espaces de formations parallèles vont se côtoyer : • l’espace physique du lieu de formation, • l’espace de la visioconférence pour celles et ceux ne pouvant venir, • celui des applications en ligne à disposition, dont une développée spécialement pour l’occasion, • le monde de réalité virtuel dans lequel certains apprenants étaient plongés. Nous conclurons notre travail par une réflexion quant à l’usage de la réalité virtuelle pour la formation et sur la façon de penser la transmission des savoirs à l’aube du metavers dans le cadre d’une société inclusive.


Abstract Socially shared regulation contributes to the success of collaborative learning. However, the assessment of socially shared regulation of learning (SSRL) faces several challenges in the effort to increase the understanding of collaborative learning and support outcomes due to the unobservability of the related cognitive and emotional processes. The recent development of trace-based assessment has enabled innovative opportunities to overcome the problem. Despite the potential of a trace-based approach to study SSRL, there remains a paucity of evidence on how trace-based evidence could be captured and utilised to assess and promote SSRL. This study aims to
investigate the assessment of electrodermal activities (EDA) data to understand and support SSRL in collaborative learning, hence enhancing learning outcomes. The data collection involves secondary school students (N = 94) working collaboratively in groups through five science lessons. A multimodal data set of EDA and video data were examined to assess the relationship among shared arousals and interactions for SSRL. The results of this study inform the patterns among students’ physiological activities and their SSRL interactions to provide trace-based evidence for an adaptive and maladaptive pattern of collaborative learning. Furthermore, our findings provide evidence about how trace-based data could be utilised to predict learning outcomes in collaborative learning. Practitioner notes What is already known about this topic Socially shared regulation has been recognised as an essential aspect of collaborative learning success. It is challenging to make the processes of learning regulation visible to better understand and support student learning, especially in dynamic collaborative settings. Multimodal learning analytics are showing promise for being a powerful tool to reveal new insights into the temporal and sequential aspects of regulation in collaborative learning. What this paper adds Utilising multimodal big data analytics to reveal the regulatory patterns of shared physiological arousal events (SPAEs) and regulatory activities in collaborative learning. Providing evidence of using multimodal data including physiological signals to indicate trigger events in socially shared regulation. Examining the differences of regulatory patterns between successful and less successful collaborative learning sessions. Demonstrating the potential use of artificial intelligence (AI) techniques to predict collaborative learning success by examining regulatory patterns. Implications for practice and/or policy Our findings offer insights into how students regulate their learning during collaborative learning, which can be used to design adaptive supports that can foster students’ learning regulation. This study could encourage researchers and practitioners to consider the methodological development incorporating advanced techniques such as AI machine learning for capturing, processing and analysing multimodal data to examine and support learning regulation.


With the advent of smartphones and fourth generation mobile technologies, the effect of social media on society has stirred up some debate and researchers across various disciplines have drawn different conclusions. Social media provides university students with a convenient platform to create and share educational content. However, social media may have an addicting effect that may lead to poor health, poor concentration in class, poor time management and consequently poor academic performance. Using a random sample of 623 students from the University of Professional Studies Accra, Ghana, this paper presents a social media influence factor (SMIF) model for measuring the effect of social media on student academic performance. The proposed model is examined using linear regression analysis and the results show a statistically significant negative relationship between SMIF variables and student grade point average (GPA). The model accounted for 30.7% of the variability in student GPA and it demonstrated a prediction quality of 55.4% given the data collected.
Educational technology is a discipline that has a lot of roles to play in the global education system yet, its services had been neglected over the years in Nigeria. The new global reality that was occasioned by the upsurge of COVID-19 has made educational technology a very consequential discipline with conspicuous roles to play in the face of such a global pandemic. COVID-19 has halted many human activities across the globe. Its effect in the education system has resulted to re-adjustment in the school calendar, prolonged graduation dates, and reduced research output. To combat this, many education systems now adopt the services of educational technology thereby changing the old norm. But for this new norm to be sustainable, this paper argues that the education system must show a pragmatic attitude towards the adoption of such innovation rather than a conservative attitude. Therefore, using the diffusion theory of innovation, this paper argues that necessity called for compulsory adoption of innovation in the Nigerian education system. This new opportunity, however, looks bleak as many educational practitioners lack the required skills and attitude to adopt the innovation. It, therefore, concludes that educational practitioners need in-service training to be part of these changes. The government is suggested to apply a systematic approach in procuring and installing ICT facilities that will enhance the diffusion of this innovation into the school system.

The main aim of this article is to determine Turkish EFL (English as a foreign language) students’ perceptions about learning English through distance education (henceforth DE) during the COVID-19 pandemic. To realize this aim, the study adopted a qualitative research design and used the metaphor elicitation technique, semi-structured telephone interviews, and an online focus group interview to collect data. The results of the analysis show that most of the students prefer face-to-face English education in a classroom setting rather than online education. Despite some positive comments about DE like it being more comfortable for shy students, students’ attitudes toward DE were found to be mostly negative because of the challenges they faced like technical problems, health and focus issues, a lack of interaction and speaking practice in the target language, feelings of anxiety and isolation and low motivation, and DE not addressing all learning styles effectively. Using several qualitative data collection tools, this study provides valuable insights into the thoughts and experiences of students about online English language learning, which can be taken into account to enhance future online language teaching and learning efforts. This study also offers some suggestions to make online EFL education more productive and effective.

Gamification has been widely used to design better educational systems aiming to increase students’ concentration, motivation, engagement, flow experience, and others positive experiences. With advances in research on gamification in education, over the past few years, many studies have highlighted the need to tailor the gamification design...
properties to match individual students' needs, characteristics and preferences. Thus, different studies have been conducted to personalize the gamification in education. However, the results are still contradictory and need to be better understood to advance this field. To provide a complete understanding of this research domain, we conducted a systematic literature review to summarize the results and discussions on studies that cover the field of tailored gamified education. Following a systematic process, we analysed 2108 studies and identified 19 studies to answer our research questions. The results indicate that most of the studies only consider students' gamer types to tailor the systems, and most of the experiments do not provide sufficient statistical evidence, especially regarding learning performance using tailored gamified systems. Based on the results, we also provided an agenda with different challenges, opportunities, and research directions to improve the literature on tailored gamification in education. Our study contributes to the field of gamification design in education.


Abstract The real-time and granularized learning information and recommendations available from adaptive learning technology can provide learners with feedback that is personalized. However, at an individual level, learners often experience technological and pedagogical conflicts. Learners have more freedom to accept, ignore or reject the feedback while also having the challenges of building learning strategies and utilizing learning information that requires self-regulated learning skills. Given the conflicts, both understanding how learners learn and providing support for learners to be more self-regulated in the learning environment are imperative. This investigation explores how learners processed their learning in an adaptive technology-integrated learning analytics dashboard (ALAD). It employed mixed-methods using a lens of self-regulated learning (SRL). Three groups were identified based on clustering analysis of the learners’ usage of warm-up (WU) tests. Sequence analysis revealed the time trends of each group’s interactions with course content. Reflexive thematic analysis brought insights on how learners built their learning strategies (eg, ways of using WU tests and submodule assessments) and how they monitored and controlled their learning. It showed their dynamic interactions with core adaptive learning analytics dashboard elements. Challenges such as difficulties in rehearsing and monitoring through segmented course content arose from the new structural changes. We suggest the need of future improvement to individual learning support through the learning analytics dashboard to be more diverse and dynamic (real-time) over the course of learning while reducing potential undesirable consequences. Practitioner notes What is already known about this topic One purpose of learning analytics and adaptive learning is to help learners identify learning goals and take action to achieve their goals. Learning analytics intervention showed support in learners' reflection phase SRL. However, it is not clear how to better support actionable and strategic changes to learning. Learning improvement through learning analytics interventions varies depending on how learners utilize feedback and monitor their learning progress, interacting with their digital learning environments. What this paper adds Learners established certain learning strategies with core adaptive learning analytics dashboard elements (eg, use of assessments, monitoring strategies). Learners’ perceptions about learning support from the ALAD were built by interacting with the learners’ task and cognitive conditions. Based on the perceptions, individuals’
various SRL strategies and the need for diverse support were found. Monitoring and rehearsals can be challenging when course content is broken down for individuals’ support. Implications for practice and/or policy Courses with adaptive learning analytics dashboards need to be designed more carefully, considering possible undesirable consequences, and to improve SRL support. Learners need more diverse learning support at an individual level based on how they interact with the learning environment.


Freinet et le Mouvement pédagogique ICEM furent précurseurs de la démocratisation de l’utilisation des techniques de reproduction et d’expédition par voie postale de contenus à vocation éducative et culturelle, comme la composition, l’impression et l’expédition de journaux d’enfants réalisés par eux-mêmes, entre écoles éloignées, permettant d’initier des échanges entre établissements et classes d’élèves, sortant ainsi du système relativement clos des écoles de cette époque. Ces pratiques de production et diffusion ont ensuite évolué avec la transformation des supports, tel que le journal-vidéo dans les années 1980, le câble puis l’usage du satellite éducatif, facilitant l’enrichissement des contenus (image animée et son, durée des programmes) et la modification des formats et des heures de diffusion. Ces évolutions ont également entraîné une extension des domaines des savoirs et un élargissement des compétences travaillées. La fin des années 1990 voit un développement de ces pratiques, par l’accroissement sans précédent des capacités des outils et des réseaux numériques, et l’introduction de l’interactivité avec les utilisateurs (cédéroms, programmes, sites internet, objets mobiles, virtuels, intelligence artificielle, etc.). Se posent alors au moins trois questions, de deux ordres différents: - Techniquement, le remplacement des techniques analogiques par celles numériques n’a-t-il pas entraîné des changements et des baisses qualitatives de pratiques opératoires ? Avec quelles incidences sur la gestion de classe et les contenus éducatifs et de formation ? - Humainement, le projet éducatif n’a-t-il pas été impacté dans son paradigme même en laissant entraîner les activités enseignantes et apprenantes vers un monde d’une toute autre nature, celui de la modernité en anthropocène, où la question même de l’ontologie (« l’être en tant qu’être ») est de devenir « augmentée », notamment dans une vision transhumaniste ? - Pédagogiquement, comment le rôle de l’enseignant est-il impacté dans son fonctionnement même vis-à-vis des élèves, les postures et statuts des uns et des autres conduisant à des attentes soumises à plus de transversalité, de fluidité, d’adaptabilité ? Cette communication vise à présenter dans une perspective multidisciplinaire les apports et les limites de ce qui est appelé le numérique en éducation, du point de vue de l’évolution des techniques (de celles de l’époque de Freinet à celles du numérique) ; l’impact des techniques modernes sur la condition humaine, avec l’apparition du terme « technontologie » (mixte de technique + ontologie), y compris d’un point de vue existentiel ; les implications dans les processus d’enseignement, avec la proposition d’une Pédagogie Intégrative, Implicative et Intentionnelle (P3i), issue de l’École Nouvelle, dans une approche critique envers le déterminisme technologique d’une part et les idéologies d’autre part.

Due to rapid developments, mobile technologies started to play an essential role in designing seamless learning environments. Due to the availability of mobile technologies, students can access learning materials without being bound by time and place. On the grounds that these applications allow information exchange, time and space limitations such as classrooms or school bells have been eliminated. Therefore, this study aims to assess mobile-assisted seamless learning environments’ effects on students’ success and motivation in the secondary school 7th grade mathematics class algebra unit and student opinions about the application. The research is designed using the descriptive pattern of mixed-method research. The sample of the study is 73 middle school students (30 male and 43 female) in Turkey. Augmented Reality (AR) applications developed in teaching algebra to support individual learning and to utilize mobile technologies, WhatsApp groups were created. Algebra Achievement Test (AAT), Mathematics Motivation Scale (MMS), and semi-structured interview forms were used as data collection tools in the research. The results of the study showed that there were statistically significant differences in favor of the experiment group in AAT and MMS scores. However, no significant difference was found between the groups in intrinsic goal orientation and test anxiety scores, which are motivation sub-dimensions. The findings obtained from AAT, MMS, and the students’ opinions showed that mobile technology applications used in out-of-school learning environments positively affect the learning process.

Si, en Australie et aux Etats-Unis, des universités ont déjà interdit l’utilisation de ChatGPT, accusé de faciliter la triche, en France, des professeurs préfèrent, pour l’instant, l’envisager comme un outil pédagogique.


Abstract Gamification is typically implemented digitally. However, digital gamification is not always possible because of limited resources and logistical problems. It is thus necessary to explore low-threshold gamification methods that can be easily adopted in classrooms. One such method is non-digital gamification using physical game design elements. Currently, the literature provides a limited understanding of the design and effects of non-digital gamification. It is also unclear whether mixed gamification (ie, a combination of digital and non-digital gamification) is better than purely non-digital gamification. We explored these topics using an explanatory sequential mixed-methods design to compare the effectiveness of non-digital gamification in a face-to-face course and mixed gamification in a blended course in terms of student learning achievement, cognitive engagement and course satisfaction. Two secondary grade classes were randomly assigned to the mixed (N = 52) or non-digital (N = 52) gamification conditions. Contrary to our expectations, the quantitative results showed that the two approaches improved the students’ learning achievement to the same extent. Although the students
in the non-digital gamification condition reported significantly higher-course satisfaction than those in the mixed condition, the improvement in student cognitive engagement was significantly greater in the mixed gamification condition than in the non-digital condition. Through focus group interviews, we analysed the students' learning experiences and synthesised the factors that influenced student cognitive engagement and course satisfaction. Practitioner notes What is already known about this topic Gamification is increasingly being used to increase student engagement and enhance learning. Gamification studies have mostly focused on digital modes, which often require gamified digital platforms or applications. Non-digital gamification can be an effective method to foster learning, but the design and evaluation of non-digital gamification is at an early stage. What this paper adds We designed non-digital and mixed (i.e., a combination of digital and non-digital) gamification programmes and compared their effects using an explanatory sequential mixed-methods design. Both gamification approaches led to a similar improvement in learning achievement. While non-digital gamification fostered students' course satisfaction, mixed gamification was more effective in improving students' cognitive engagement. Implications for practice and/or policy Non-digital gamification can be an effective low-threshold solution for instructors. It is worth further improving the non-digital gamification approach in school settings as it is cost-effective and can be transferred between classrooms. The benefits of mixed gamification should not be ignored because of its affordances that improve students' cognitive engagement.


Student feedback is crucial for evaluating the performance of teachers and the quality of teaching. Free-form text comments obtained from open-ended questions are seldom analyzed comprehensively since it is difficult to interpret and score compared to standardized rating scales. To solve this problem, the present study employed aspect-level sentiment analysis using deep learning and dictionary-based approaches to automatically calculate the emotion orientation of text-based feedback. The results showed that the model using the topic dictionary as input and the attention mechanism had the strongest prediction effect in student review sentiment classification, with a precision rate of 80%, a recall rate of 79% and an F1 value of 79%. The findings identified issues that were not otherwise apparent from analyses of purely quantitative data, providing a deeper and more constructive understanding of curriculum and teaching performance.


The purpose of the qualitative study was to investigate instructors’ experiences of engaging non-traditional learners in eCampus. Online education was rapidly growing in many higher education institutions, especially during the pandemic. However, a high
Attrition rate could negatively impact student success. Research findings showed that engagement was a significant factor to increase students’ online retention. Due to the flexibility and accessibility of online education, there was a high demand among non-traditional learners. However, limited research has been conducted to explore instructors’ experiences while engaging non-traditional learners in eCampus. In the general qualitative study, twelve online instructors were recruited, and interviews and document analysis were used to collect data. The findings showed that instructors faced both challenges and opportunities while increasing engagement among non-traditional learners in online programs. These indicated the need for the diversity of course design, relationship and community building, the flexibility of engagement criteria, and the unpredictability of emotional engagement. Institutional support and resources were recommended to improve the future teaching practices and the success of online learners with underrepresented backgrounds.


Abstract This study analyses the potential of a learning analytics (LA) based formative assessment to construct personalised teaching sequences in Mathematics for 5th-grade primary school students. A total of 127 students from Spanish public schools participated in the study. The quasi-experimental study was conducted over the course of six sessions, in which both control and experimental groups participated in a teaching sequence based on mathematical problems. In each session, both groups used audience response systems to record their responses to mathematical tasks about fractions. After each session, students from the control group were given generic homework on fractions—the same activities for all the participants—while students from the experimental group were given a personalised set of activities. The provision of personalised homework was based on the students’ errors detected from the use of the LA-based formative assessment. After the intervention, the results indicate a higher student level of understanding of the concept of fractions in the experimental group compared to the control group. Related to motivational dimensions, results indicated that instruction using audience response systems has a positive effect compared to regular mathematics classes. Practitioner notes What is already known about this topic Developing an understanding of fractions is one of the most challenging concepts in elementary mathematics and a solid predictor of future achievements in mathematics. Learning analytics (LA) has the potential to provide quality, functional data for assessing and supporting learners’ difficulties. Audience response systems (ARS) are one of the most practical ways to collect data for LA in classroom environments. There is a scarcity of field research implementations on LA mediated by ARS in real contexts of elementary school classrooms. What this paper adds Empirical evidence about how LA-based formative assessments can enable personalised homework to support student understanding of fractions. Personalised homework based on an LA-based formative assessment improves the students’ comprehension of fractions. Using ARS for the teaching of fractions has a positive effect in terms of student motivation. Implications for practice and/or policy Teachers should be given LA/ARS tools that allow them to quickly provide students with personalised mathematical instruction. Researchers should continue exploring these potentially beneficial educational implementations in other areas.

The objective of this study is to identify and analyze the scientific literature with a bibliometric analysis to find the main topics, authors, sources, most cited articles, and countries in the literature on virtual reality in education. Another aim is to understand the conceptual, intellectual, and social structure of the literature on the subject and identify the knowledge base of the use of VR in education and whether it is commonly used and integrated into teaching-learning processes. To do this, articles indexed in the Main Collections of the Web of Science, Scopus and Lens were analyzed for the period 2010 to 2021. The research results are presented in two parts: the first is a quantitative analysis that provides an overview of virtual reality (VR) technology used in the educational field, with tables, graphs, and maps, highlighting the main performance indicators for the production of articles and their citation. The results obtained found a total of 718 articles of which the following were analyzed 273 published articles. The second stage consisted of an inductive type of analysis that found six major groups in the cited articles, which are instruction and learning using VR, VR learning environments, use of VR in different fields of knowledge, learning processes using VR applications or games, learning processes employing simulation, and topics published during the Covid-19 pandemic. Another important aspect to mention is that VR is used in many different areas of education, but until the beginning of the pandemic the use of this so-called “disruptive process” came mainly from students. Institutions were reluctant and slow to accept and include VR in the teaching-learning processes.


The COVID-19 pandemic has significantly affected the higher education sector in Singapore. Existing tertiary studies seeking to understand the intraperiod response to COVID-19 often focus on single institutions, jurisdictions or stakeholder groups. This study is the first in-depth qualitative multi-stakeholder examination of the higher education environment in Singapore during the COVID-19 pandemic. It explored the perceptions of the quality of digital pedagogy during COVID-19, how universities have adapted because of the pandemic, and how leaders, teaching staff and students have been affected by the management and educational changes via 13 semi-structured interviews across six Singapore higher education institutions. Through purposive sampling, we explore current stakeholder perceptions, structural education changes, and personal learning and teaching impacts of COVID-19. Applying Braun and Clarke’s approach to thematic analysis, we inductively uncovered four major themes: the Singapore government’s approach to COVID-19 and its effects on delivery; academic leadership approaches; education technology; and well-being. This article is critical as a key foundation to understand how Singapore is responding with unique geopolitical differences. We discuss the practical implications of our research for current university faculty and students during and beyond the pandemic, and outline opportunities for future research.

With the advent of technology and digitization, the use of Information and Communication Technology (ICT) and its tools for the imperative dissemination of information to learners are gaining more ground. During the process of the conveyance of lectures, it is mostly observed that students (learners) are supposed to take notes (minutes) of the subject matter being delivered to them. The existence of different factors like disturbance (noise) from the environment, learner’s lack of interest, problems with the tutor’s voice, and pronunciation, or others, may hinder the practice of preparing (or taking) lecture notes effectively. To tackle such an issue, we propose an artificial intelligence-inspired multilanguage framework for the generation of the lecture script (of complete) and minutes (only important contents) of the lecture (or speech). We also aimed to perform a qualitative content-based analysis of the lecture’s content. Furthermore, we have validated the performance (accuracy) of the proposed framework with that of the manual note-taking method. The proposed framework outperforms its counterpart in terms of note-taking and performing the qualitative content-based analysis. In particular, this framework will assist the tutors in getting insights into their lecture delivery methods and materials. It will also help them improvise to a better approach in the future. The students will be benefited from the outcomes as they do not have to invest valuable time in note-taking/preparation.


Due to the growing demand for information technology skills, programming education has received increasing attention. Predicting students’ programming performance helps teachers realize their teaching effect and students’ learning status in time to provide support for students. However, few of the existing researches have taken the code that students wrote into consideration. In fact, code is informative and contains lots of attributes. Student programming performance can be better understood and predicted by adding code information into student profiles. This paper proposed a student profiles model to describe students’ characteristics, which contains the code information and then was used as the input of a deep neural network to predict the programming performance. By comparing different machine learning techniques and different combinations of dimensions of student profiles, the experimental results show that a four-layer deep neural network fed with all available dimensions of student profiles has achieved the best prediction with RMSE 12.68.


Au moment de la pandémie de COVID-19, la plupart des établissements d'enseignement supérieur n'étaient pas préparés au passage soudain à l'enseignement/apprentissage à distance d'urgence. Par conséquent, de nombreuses généralisations sont apparues dans le discours public concernant ses effets négatifs et les avantages de l'enseignement/apprentissage en face à face. Néanmoins, les leçons
tirées de la mise en œuvre d’urgence de l’enseignement/apprentissage à distance durant la pandémie de COVID-19 doivent être intégrées dans un ensemble complet de connaissances de la valeur et des limites de l’enseignement/apprentissage en ligne. Dans cette optique, ce rapport présente les résultats systématiques d’études menées avant et pendant la pandémie et portant sur l’efficacité de l’enseignement/apprentissage en ligne planifié et de l’enseignement à distance d’urgence, d’autre part. Il explore les différences entre les deux et cherche à déterminer si la plupart des effets négatifs attribués à l’enseignement à distance d’urgence sont dus à l’enseignement en ligne lui-même ou si cet enseignement n’a pas bénéficié d’une planification complète puisqu’il s’agissait d’une réponse rapide à une situation de pandémie.


Online teaching has globally become a part of the learning process and has been more well-established in developed countries. In developing countries, online teaching or e-Learning is not practiced or recognized officially by educational organizations and policymakers. On the other hand, it is well-known that computers and technology are the future; in such a case, the advancement of distance-learning or online learning is immensely remarkable. It has reduced teachers’ and students’ introversion concerning e-learning and technology and has provided a platform for learning new technologies and developing new skills. The recent COVID-19 lockdown impelled governments to start implementing E-learning in schools, which resulted in several challenges. This study attempts to analyze and interpret the challenges and potentials of implementing online learning by surveying through an online questionnaire using ‘Google Forms’ (N = 968) with responses from high school and primary school English teachers during the first week of March through the last week of April. The findings revealed that most teachers had negative perceptions of implementing e-learning for several reasons, including lack of essential facilities such as electricity, electronic devices, and the absence of required skills. The actual contributions of students and educators are also among the major obstacles. This research suggests introducing Information Communication Technology modules across media platforms and applications in the education departments, opening intensive courses for teachers, and developing educational facilities in the education departments and schools to overcome these limitations and challenges.


Abstract Formative assessment is considered to be helpful in students’ learning support and teaching design. Following Aufschnaiter’s and Alonzo’s framework, formative assessment practices of teachers can be subdivided into three practices: eliciting evidence, interpreting evidence and responding. Since students’ conceptions are judged to be important for meaningful learning across disciplines, teachers are required to assess their students’ conceptions. The focus of this article lies on the discussion of learning analytics for supporting the assessment of students’ conceptions in class. The existing and potential contributions of learning analytics are discussed related to the named formative assessment framework in order to enhance the teachers’ options to consider individual students' conceptions. We refer to findings from biology and
computer science education on existing assessment tools and identify limitations and 
potentials with respect to the assessment of students’ conceptions. Practitioner notes

What is already known about this topic Students’ conceptions are considered to be 
important for learning processes, but interpreting evidence for learning with respect to 
students’ conceptions is challenging for teachers. Assessment tools have been 
developed in different educational domains for teaching practice. Techniques from 
artificial intelligence and machine learning have been applied for automated 
assessment of specific aspects of learning. What does the paper add Findings on existing 
assessment tools from two educational domains are summarised and limitations with 
respect to assessment of students’ conceptions are identified. Relevant data that needs 
to be analysed for insights into students’ conceptions is identified from an educational 
perspective. Potential contributions of learning analytics to support the challenging task 
to elicit students’ conceptions are discussed. Implications for practice and/or policy Learning analytics can enhance the eliciting of students’ conceptions. Based on the 
analyis of existing works, further exploration and developments of analysis techniques for 
unstructured text and multimodal data are desirable to support the eliciting of students’ 
conceptions.

Sun, Z., & Theussen, A. (2023). Assessing negotiation skill and its development in an online 
collaborative simulation game: A social network analysis study. British Journal of 

Abstract Simulation games are widely used to teach negotiation skills in political science 
education. However, existing studies focus on the impact of simulation games on 
students’ knowledge gains and affective changes and largely ignore skill assessment and 
development in the gaming environment. This study aimed to understand the process of 
student groups practicing negotiation skills in a collaborative simulation game through 
social network analysis (SNA). We proposed a conceptual framework to assess 
negotiation skills by identifying different negotiation skillsets based on participatory roles 
in collaborative learning, investigated the skill development through the change of the 
skillsets over time, and examined the relationship between the negotiation skillsets and 
achievement. The results showed that the majority of student groups practiced more 
complex negotiation skillsets towards the end of the game, and the complexity of skillsets 
was positively related to the negotiation outcomes in the simulation game. The study 
demonstrated the possibilities of using SNA as an analytical tool to measure negotiation 
skills and explore dynamic skill development in a collaborative simulation game. It has 
also shown the potential of integrating SNA in a collaborative gaming environment for 
avtomated analysis of a large volume of data concerning interactions. Practitioner notes

What is already known about this topic Simulation games are widely used to teach 
negotiation skills in political science education to improve the connection between 
thoretical knowledge and skill practice. Existing studies focus on the impact of 
simulation games on learners’ knowledge gains and affective changes but ignore the 
skill assessment and development in the gaming environment, especially in the 
collaborative simulated gaming environment. What this paper adds The study 
investigated the process of student groups practicing negotiation skills in a collaborative 
simulation game through Social Network Analysis (SNA). We proposed a novel 
conceptual framework to measure negotiation skills by identifying different negotiation 
skillsets through connecting them to learners’ participatory roles that emerged during the 
collaborative gameplay. The study demonstrated learners’ dynamic and evolutionary 
process of practicing negotiation skills in the game. The results showed that there was a
positive relationship between the complexity of negotiation skillsets and negotiation outcomes in the game. Implications for practice and/or policy The study demonstrates the possibilities of using SNA as an analytical tool to measure negotiation skills and explore dynamic skill development in a collaborative gaming environment. The results can guide teachers to identify risky game moves and students in need and provide personalized feedback to help improve students’ negotiation skills. The findings can help teachers optimize the game design to ensure students’ equal and active participation in the game. The study highlights the potential of integrating SNA in collaborative gaming environments for automated analysis of a large volume of data concerning interactions.


The Covid-19 pandemic has indeed driven educational technology to the next higher level, especially in faculty teaching and research. There is an increasing need for faculty to embrace new technology, especially with the emergence of new normal in both teaching, learning, and research. To become conversant with the technologies, educators need opportunities for professional development. And to continue to be involved with new and evolving technologies in education, faculty members seek leadership and support. This study was carried out to investigate the leadership role in the professional development of technology in the educational delivery system of Nigerian universities. The study adopted a qualitative approach. This qualitative study randomly selected a convenience sample of 100 faculty and administrators in the faculty of education of 12 universities in Nigeria. Using focus-group discussion sessions, interviews, the researchers met with 100 participants in groups of 3 to 15 each session. Data were transcribed and entered into a database for analysis. The leadership role of faculty members, technology specialists, policy, support, and infrastructure were discussed. The study shows that to help faculty members lead the way in investigating, integrating, and evaluating technologies, faculty members need policies and leadership support, equitable access to technology, support, professional development, and recognition.


Abstract Technology-based, open-ended learning environments (OELEs) can capture detailed information of students' interactions as they work through a task or solve a problem embedded in the environment. This information, in the form of log data, has the potential to provide important insights about the practices adopted by students for scientific inquiry and problem solving. How to parse and analyse the log data to reveal evidence of multifaceted constructs like inquiry and problem solving holds the key to making interactive learning environments useful for assessing students' higher-order competencies. In this paper, we present a systematic review of studies that used log data generated in OELEs to describe, model and assess scientific inquiry and problem solving. We identify and analyse 70 conference proceedings and journal papers published between 2012 and 2021. Our results reveal large variations in OELE and task characteristics, approaches used to extract features from log data and interpretation models used to link features to target constructs. While the educational data mining and learning analytics communities have made progress in leveraging log data to model
inquiry and problem solving, multiple barriers still exist to hamper the production of representative, reproducible and generalizable results. Based on the trends identified, we lay out a set of recommendations pertaining to key aspects of the workflow that we believe will help the field develop more systematic approaches to designing and using OLEEs for studying how students engage in inquiry and problem-solving practices.

Practitioner notes: What is already known about this topic: Research has shown that technology-based, open-ended learning environments (OLEEs) that collect users' interaction data are potentially useful tools for engaging students in practice-based STEM learning. More work is needed to identify generalizable principles of how to design OLEE tasks to support student learning and how to analyse the log data to assess student performance. What this paper adds: We identified multiple barriers to the production of sufficiently generalizable and robust results to inform practice, with respect to: (1) the design characteristics of the OLEE-based tasks, (2) the target competencies measured, (3) the approaches and techniques used to extract features from log files and (4) the models used to link features to the competencies. Based on this analysis, we can provide a series of specific recommendations to inform future research and facilitate the generalizability and interpretability of results: Making the data available in open-access repositories, similar to the PISA tasks, for easy access and sharing. Defining target practices more precisely to better align task design with target practices and to facilitate between-study comparisons. More systematic evaluation of OLEE and task designs to improve the psychometric properties of OLEE-based measurement tasks and analysis processes. Focusing more on internal and external validation of both feature generation processes and statistical models, for example with data from different samples or by systematically varying the analysis methods. Implications for practice and/or policy: Using the framework of evidence-centered assessment design, we have identified relevant criteria for organizing and evaluating the diverse body of empirical studies on the topic and that policy makers and practitioners can use for their own further examinations. This paper identifies promising research and development areas on the measurement and assessment of higher-order constructs with process data from OLEE-based tasks that government agencies and foundations can support. Researchers, technologists and assessment designers might find useful the insights and recommendations for how OLEEs can enhance science assessment through thoughtful integration of learning theories, task design and data mining techniques.


Abstract: Technologies and teaching practices can provide a rich log data, which enables learning analytics (LA) to bring new insights into the learning process for ultimately enhancing student success. This type of data has been used to discover student online learning patterns, relationships between online learning behaviors and assessment performance. Previous studies have provided empirical evidence that not all log variables were significantly associated with student academic achievement and the relationships varied across courses. Therefore, this study employs a systematic review with meta-analysis method to provide a comprehensive review of the log variables that have an impact on student academic achievement. We searched six databases and reviewed 88 relevant empirical studies published from 2010 to 2021 for an in-depth analysis. The results show different types of log variables and the learning contexts investigated in the reviewed studies. We also included four moderating factors to do
moderator analyses. A further significance test was performed to test the difference of effect size among different types of log variables. Limitations and future research expectations are provided subsequently. Practitioner notes What is already known about this topic Significant relationship between active engagement in online courses and academic achievement was identified in a number of previous studies. Researchers have reviewed the literature to examine different aspects of applying LA to gain insights for monitoring student learning in digital environments (eg, data sources, data analysis techniques). What this paper adds Presents a new perspective of the log variables, which provides a reliable quantitative conclusion of log variables in predicting student academic achievement. Conducted subgroup analysis, examined four potential moderating variables and identified their moderating effect on several log variables such as regularity of study interval, number of online sessions, time-on-task, starting late and late submission. Compared the effect of generic and course-specific, basic and elaborated log variables, and found significant difference between the basic and elaborated. Implications for practice and/or policy A depth of understanding of these log variables may enable researchers to build robust prediction models. It can guide the instructors to timely adjust teaching strategies according to their online learning behaviors.


Interactive learning is a two-way learning method of learners independently by using computer and network technology. In the interactive relationships, interactive learning plays a role for learners to achieve the learning purpose, interactive learning has become an important effect of online learning, but it also has many problems that need to be improved. In particular, how to apply the massive data to achieve data-driven early warning needs further research. This study firstly mines the temporal series of learning behavior features, the corresponding data is collected from one online learning platform of The UK Open University, the massive data obtained from the platform have been desensitized, disclosed and shared, which might ensure the comparison and verification of research results. Secondly, we design a early warning mechanism based on temporal memory enhancement model. Through a large number of data training and testing, this method is useful to the analysis of learning behavior features, and has strong effectiveness and reliability. Thirdly, the decision and intervention mechanism are mined and predicted. The whole work is of great significance to the early warning mechanism of interactive learning process, which has strong theoretical value and practical significance.


Abstract Simulation-based learning provides students with unique opportunities to develop key procedural and teamwork skills in close-to-authentic physical learning and training environments. Yet, assessing students’ performance in such situations can be challenging and mentally exhausting for teachers. Multimodal learning analytics can support the assessment of simulation-based learning by making salient aspects of students’ activities visible for evaluation. Although descriptive analytics have been used
to study students’ motor behaviours in simulation-based learning, their validity and utility for assessing performance remain unclear. This study aims at addressing this knowledge gap by investigating how indoor positioning analytics can be used to generate meaningful insights about students’ tasks and collaboration performance in simulation-based learning. We collected and analysed the positioning data of 304 healthcare students, organised in 76 teams, through correlation, predictive and epistemic network analyses. The primary findings were (1) large correlations between students’ spatial-procedural behaviours and their group performances; (2) predictive learning analytics that achieved an acceptable level (0.74 AUC) in distinguishing between low-performing and high-performing teams regarding collaboration performance; and (3) epistemic networks that can be used for assessing the behavioural differences across multiple teams. We also present the teachers’ qualitative evaluation of the utility of these analytics and implications for supporting formative assessment in simulation-based learning. Practitioner notes What is currently known about this topic Assessing students’ performance in simulation-based learning is often challenging and mentally exhausting. The combination of learning analytics and sensing technologies has the potential to uncover meaningful behavioural insights in physical learning spaces. Observational studies have suggested the potential value of analytics extracted from positioning data as indicators of highly-effective behaviour in simulation-based learning. What this paper adds Indoor positioning analytics for supporting teachers’ formative assessment and timely feedback on students’ group/team-level performance in simulation-based learning. Empirical evidence supported the potential use of epistemic networks for assessing the behavioural differences between low-performing and high-performing teams. Teachers’ positively validated the utility of indoor positioning analytics in supporting reflective practices and formative assessment in simulation-based learning. Implications for practitioners Indoor positioning tracking and spatial analysis can be used to investigate students’ teamwork and task performance in simulation-based learning. Predictive learning analytics should be developed based on features that have direct relevance to teachers’ learning design. Epistemic networks analysis and comparison plots can be useful in identifying and assessing behavioural differences across multiple teams.


Enabling college graduates to achieve career success is increasingly considered a major responsibility of universities. Many studies have developed models of predicting students’ career decisions and have sought to provide appropriate treatments or early support for students to achieve this goal. Most studies, however, have focused on using institutional data, which might not be entirely sufficient for the prediction because students’ career decisions might also be affected by the social context. This study proposes a data-driven approach that considers both institutional data and social media news for predicting students’ career decisions. The results of this study suggest that such an approach achieved a higher performance in the prediction task. This study also discusses the data-driven approach as a means of supporting students’ career development in the university setting, how the approach can be used to inform educators on how to use the data that are both internal and external to the university, and what the impact of this approach is on educational support decisions.

Artificial intelligence (AI) education for K-12 students is an emerging necessity, owing to the rapid advancement and deployment of AI technologies. It is essential to take teachers’ perspectives into account when creating ecologically valid AI education programmes for K-12 settings. However, very few studies investigated teacher perception of AI education. Phenomenography is an empirical research method that was widely used to understand teacher’s interpretive understanding of new phenomenon, in this study, the teaching of AI in secondary school. Therefore, the present study investigated teachers’ conceptions of teaching AI using a phenomenographic approach. Twenty-eight in-service teachers from 17 secondary schools in Hong Kong were invited to participate in an interview after implementing an AI curriculum. Six categories of teacher conceptions were identified: (1) technology bridging, (2) knowledge delivery, (3) interest stimulation, (4) ethics establishment, (5) capability cultivation, and (6) intellectual development. The hierarchical relationships of the six concepts were organised as an outcome space. The space shows a range of surface to deep conceptions and offers an understanding of how teachers perceive AI education through their teaching experience. Two learning paths have been suggested for cultivating technical and non-technical teachers for teaching AI. These learning paths provide insights for teacher educators and policymakers to enhance teachers’ competence in teaching AI and promote general AI education for K-12 students.


Chatbots are tools that have the potential to effectively support interpersonal communication and interaction. Chatbots can provide great opportunities in education. The use of chatbots in education can be used to employ interactive methods, to provide learners information and different types of info, and to guide learners. Indeed, chatbots promise to enhance learning experiences by creating more interaction than traditional teaching practices provide. In this context, the purpose of this study is to apply chatbot technology as a guidance tool in educational environments and to model its effects on visual design self-efficacy, engagement, satisfaction, and learner autonomy at the end of the process. The participants of the study are 86 university students. In this study, data were collected with 4 different scales. Data were analyzed using the variance-based structural equation model with the partial least square method. As a result of the study, it was found that students with higher chatbot usage satisfaction had higher visual design self-efficacy. Chatbot usage satisfaction positively affects some aspects of course satisfaction. Chatbot usage satisfaction affects engagement. The effects of the study results in terms of research and practice were discussed.

Information and Communication Technology (ICT) has undoubtedly forms an important channel for improving student learning through continuous access to information and knowledge development. Evidence suggests that teachers in rural secondary schools are still unclear about how to use technology appropriately to facilitate particular approaches to educational practice. Quantitative research method and the modified Unified Theory for Acceptance and Use of Technology (UTAUT) model were used to investigate factors that influence teachers to adopt ICT in rural secondary schools. A closed questionnaire was used as a data collection instrument and the data was analysed using descriptive statistics techniques. The results show that opportunities such as ICT infrastructure, training policy, collaboration, ICT assessments and ability to communicate using ICT influence teachers’ adoption of ICT and make teaching and learning effective. ICT assessments facilitate the recording of responses, provide necessary feedback, empower teachers and students and transform teaching and learning processes from being teacher-centered to student-centered. Furthermore, communication platforms and collaboration models if implemented might be particularly effective in generating increased participation and improve learning outcomes. The ICT training policy guide teachers in the adoption of ICT in the classroom. Evidently, it is essential to adequately develop teachers’ ICT fluency and put in place appropriate ICT infrastructure and training policy to enhance teaching and learning practices in rural secondary schools.


Coding games are widely used to teach computational thinking (CT). Studies have broadly investigated the role of coding games in supporting CT learning in formal classroom contexts, but there has been limited exploration of their use in informal home-based settings. This study investigated the factors that motivated students to use a coding game called Coding Galaxy in a home-based setting. It explored the connections between the students' perceptions of and usage of the tool. An 11-day intervention was conducted at a primary school in Hong Kong with 104 participants. The students’ perceptions of the game were collected via questionnaires and information on their use of the tool was extracted from log files. Results indicated that coding motivation and feeling of enjoyment were predictors of the actual use of the game, with coding motivation the dominant factor. Focus group interviews were also conducted to further explore the students' motivation to play the game. Through comparisons of active and inactive users, the qualitative findings supported the quantitative results, indicating that students who were more intrinsically motivated tended to be more active in using the game. The implications of the study for researchers and practitioners in CT education are discussed.


Fresh PhD recipients are experiencing restricted career opportunities yet the enrolment of PhD Scholars is increasing rapidly. Perhaps, doctoral students lack conscious
educational decision-making. Building on such a perspective of doctoral students’ unconscious educational choices, we explored their educational choices throughout their life trajectory. We started with a qualitative inquiry of 18 different PhD scholars in Pakistan. The findings helped us in developing a measure to determine the extent of herding in doctoral students’ educational decisions. We ‘benefitted from’ this opportunity and validated the scale in two separate quantitative inquiries for conducting an exploratory factor analysis and confirmatory factor analysis. The study concluded a 3-dimensional scale (consisting of 15-items) for measuring ‘herding in educational decisions’. The study offers certain implications for conscious educational decisions.


Sorting students on the basis of their academic performance into hierarchically ordered curriculums (i.e., between-school tracking) is common practice in various educational systems. International studies show that this form of tracking is associated with increased educational inequalities. As track placement is often based on teacher recommendations, biased track recommendations may contribute to this inequality. To shed light on the role that teachers play in the reproduction of inequalities in school, we conducted a systematic review of 27 recent articles on teachers’ between-school tracking recommendations and students’ socio-economic or ethnic background. We find that teacher recommendations are biased against students from disadvantaged socio-economic backgrounds, yet evidence with respect to ethnic biases is more mixed. While student, parent, teacher, and contextual factors seem to play a role in tracking recommendations, they cannot account for the biases in tracking recommendations. We discuss promising areas for future studies and argue that research on institutional moderators may have more potential than research on psychological mediators to effectively reduce bias in educational institutions.


Undergraduate research is lauded as a high-impact practice owing to the array of benefits that students can reap from participating. One unexplored construct that may affect student intent to persist in research is research anxiety, defined as the sense of worry or apprehension associated with conducting research. In this study, we surveyed 1272 undergraduate researchers across research-intensive, master’s-granting, and primarily undergraduate institutions to assess the relationship among student demographics, research anxiety, and intent to pursue a research career. Using structural equation modeling, we identified that women and students with higher grade point averages (GPAs) were more likely to report higher levels of research anxiety compared with men and students with lower GPAs, respectively. Additionally, research anxiety was
significantly and negatively related to student intent to pursue a research-related career. We coded students’ open-ended responses about what alleviates and exacerbates their anxiety and found that experiencing failure in the context of research and feeling underprepared increased their research anxiety, while a positive lab environment and mentor–mentee relationships decreased their anxiety. This is the first study to examine undergraduate anxiety in the context of research at scale and to establish a relationship between research anxiety and students’ intent to persist in scientific research careers.

Danvers, F. (2022). *S’orienter dans la vie: Quel accompagnement à l’ère des transitions?* (Vol. 5). Consulté à l’adresse [https://hal.science/hal-03951047](https://hal.science/hal-03951047)


Parcoursup constitue désormais une épreuve clé dans la vie de chaque adolescent. Cette initiation à la violence managérielle et algorithmique se montre comme une préprofessionnalisation des élèves qui, paradoxalement, ne s’accomplirait que par l’humiliation des voeux refusés et des lettres de motivation jamais lues. Il en aurait été autrement si le pouvoir avait préféré investir dans la création d’universités. Parcoursup n’est pas une erreur, mais l’instrument de la brutalité d’un État qui veut imposer le privé comme modèle.

Grober-Traviesas, D. (2023). *De (dis)continuités en ruptures.* In K. Bideaux, J. Sannaee, Ordoño Júlia Monte, Golrokhi Ayda, & L. Mathieu, *Projeter, Projection. 13e journée d’études des doctorant·e·s de l’école doctorale 31 Pratiques et théories du sens*. Consulté à l’adresse [https://hal.science/hal-03964584](https://hal.science/hal-03964584)

Notre propos vise à interroger les reconfigurations du sens attribué à leur projet professionnel par les étudiant·e·s infirmier·ère·s engagé·e·s depuis mars 2020 dans la gestion de la crise sanitaire dû à la pandémie de covid-19. À partir de l’analyse d’entretiens menés auprès d’étudiant·e·s en fin de formation ou de jeunes professionnel·le·s, nous cherchons à mettre en exergue en quoi la pandémie peut avoir modifié leur rapport au métier projeté, fondé sur de nouveaux savoirs considérés comme professionnels. Nous faisons l’hypothèse que l’écart entre leurs valeurs, leurs idéaux de soignant·e·s et leur vécu dans cette crise sanitaire, ont amené ces futur·e·s professionnel·le·s à prendre conscience de certaines limites tenues habituellement dans l’ombre, qui ont pu bouleverser la construction de leur identité de soignant·e, voire les ont amené·e·s à se penser dans un possible autre, voire parfois totalement autre en se détournant du projet professionnel initial. Cela les a conduit·e·s à investir un matériau symbolique (savoirs, valeurs) parfois ignoré jusque-là.


University students’ expectations of digital technologies in their studies are greatly influenced by their previous exposure both within the secondary school classroom and in their private lives. These expectations often play a powerful role in their approaches and learning strategies in their first-year university classes. In this work, we investigated students’ expectations and utilisation of digital technologies in their transition from high school to tertiary studies. A survey encompassing the Expectancy-Disconfirmation
Paradigm was conducted amongst second year students across the university. The results showed students expected to use advanced IT technologies and equipment at university. The high expectations were similar regardless of demographic parameters, such as gender, school type or field of studies. The findings also indicated that most students perceived little disconnection between the technology they used in high school and that of university. The majority of students seemed satisfied and even positively surprised by the use of technology in their university courses.


Notre thèse interroge les parcours d’adultes qui, au mitan de leur vie professionnelle, ont fait le choix de se reconvertir à un métier manuel. Yohan, Fabien, Ingrid et quelques autres ont ainsi renoncé à leur carrière dans le tertiaire et à leur position sociale pour entreprendre ce type de reconversions. Dans un contexte éminemment paradoxal, où les pressions du monde du travail rencontrent un appel à la liberté de choisir, ils sont devenus charpentier, chaudronnier, peintre décorateur, ou encore menuisier. Pour se former, ils ont mobilisé un dispositif en alternance, intégrant des CFA (Centres de Formation par l’Apprentissage) au milieu de jeunes apprentis. Notre thèse tente de reconstruire leurs parcours singuliers, souvent invisibilisés et finalement mal connus. Tardives et souvent radicales, ces reconversions convoquent la question des choix et leurs motivations, que le sens de l’activité semble articuler. Comment rendre intelligibles ces parcours ? Des entretiens semi-directifs ont permis d’en retracer les grandes étapes autant que les lignes de force. Parmi elles, le sens de la démarche et la valeur ajoutée de l’alternance. Mais quelque chose continuait de nous échapper. Le recours à un protocole biographique, complémentaire, a dévoilé d’autres dimensions en jeu dans ces parcours. Par la mise en récit de leur histoire individuelle, familiale et sociale, à la faveur de réalisations graphiques, les adultes impliqués ont pu prendre conscience de «liens invisibles» et finalement de nœuds que les reconversions s’emploient vraisemblablement à dénouer.


Transition into higher education (HE) has received increased interest in recent years, since it represents a challenging period for students. The aim of this study was to further understand the associations between self-efficacy, academic achievements, and regulation in first-year university students during their transition into HE. The convenience sample consisted of 374 first-year university students (230 females, 61.5%), aged from 18 to 33 (M = 19.86, SD = 1.51) and recruited from an Italian university. Self-efficacy was assessed using the Motivated Strategies for Learning Questionnaire; regulation strategies were assessed with the Inventory of Learning Patterns of Students; and a self-reported grade point average was taken as an indicator of each student’s academic performance. Result shows that students’ self-efficacy was positively associated with self-regulation and negatively associated with a lack of regulation. Students with higher self-efficacy and self-regulation strategies had better academic performance. Female students performed better in academic activities and adopted more external regulation
strategies. The findings represent an opportunity for university institutions to consider the interventions they provide to first-year students in order to facilitate the successful transition from secondary school; they also provide researchers with further knowledge about the effect of self-efficacy, and regulation strategies on students’ adjustment to HE.


We evaluate the impact of a low-stakes easy-to-implement course-level intervention, Scientist Spotlight assignments, which feature personal and professional stories of diverse scientists. This work extends previous studies by examining whether shifts in relatability differ across student identities, particularly students who identify as first-generation students, a population that has not been the focus of previous investigations of this intervention. Using paired pre- and postcourse data from four implementations in an introductory biology course, we report a significant, positive shift in undergraduate students’ self-reported ability to relate to scientists, and concomitant shifts in how students describe scientists after completing four or six Scientist Spotlight assignments. Importantly, our data demonstrate a disproportionate, positive shift for first-generation college students and for students who identify as female, a novel contribution to the body of literature investigating the Scientist Spotlight intervention. This study, along with previous reports of similar shifts in varying institutional contexts across different populations of learners, provides a strong argument that instructors interested in diversifying their course content to include representations of diverse scientists to enhance students’ ability to identify a range of “types of people” who do science can do so successfully through incorporation of a small number of Spotlight assignments.


Coachs et avocats spécialisés dans l’orientation ou les recours juridiques profitent du stress généré autour de la plate-forme d’admission postbac, dont la première phase d’inscription commence le 18 janvier.


This article examines how the likelihood of pursuing higher education abroad varies with social background and how such possible variations differ across educational fields. We use comprehensive Norwegian population data which allow for examining two
dimensions of family background: parents’ education level and income. Our analytical sample comprises five cohorts of first-time students aged 19–24 years. We confirm previous findings that students who study abroad come from families with highly educated parents. Additionally, we find that students abroad have wealthier parents. Interestingly, the relationships between the likelihood of studying abroad and family background differ across educational fields. The probability of studying business and administration abroad increases with both parental income and parental education level, whereas it only increases with parental income for fine arts students. For medical students, family background does not correlate with the probability of studying abroad after controlling for grades from upper secondary.


Enabling college graduates to achieve career success is increasingly considered a major responsibility of universities. Many studies have developed models of predicting students’ career decisions and have sought to provide appropriate treatments or early support for students to achieve this goal. Most studies, however, have focused on using institutional data, which might not be entirely sufficient for the prediction because students’ career decisions might also be affected by the social context. This study proposes a data-driven approach that considers both institutional data and social media news for predicting students’ career decisions. The results of this study suggest that such an approach achieved a higher performance in the prediction task. This study also discusses the data-driven approach as a means of supporting students’ career development in the university setting, how the approach can be used to inform educators on how to use the data that are both internal and external to the university, and what the impact of this approach is on educational support decisions.
acteurs institutionnels et associatifs mobilisés autour des ODD en milieu scolaire en France.


Mission statements provide educational institutions with the legitimacy to market and promote services through positive statements. This study applied genre analysis to examine the function of promotional rhetoric in top 100 international universities’ mission statements. Bhatia’s rhetorical moves of promotional genre was triangulated with Pearce and David’s components for mission-writing. It was seen that international universities rely on promotional rhetorical moves to articulate their self-concept and services. Moreover, universities actively compete against each other to secure a high position in the international ranking lists. This ensures that they obtain additional incentives that help them gain economic stability and build a reputation. Promotional genre has become a practiced culture in the professional discourse community of higher education. Hence, there is a need to allow mission statements genre membership. We suggested a genre model that can be taught and used for writing mission statements. The most recurrent moves employed suggest that the communicative purpose for mission-writing used by international universities is to target the international market and build a public image to reel in more students, thereby improving their financial status while ensuring a good reputation. Based on this study, institutions can get guidance on designing and drafting effective mission statements.


Although there is increased need for closing the gap between educational research and policy to better enable effective practice, addressing the problem remains a challenge. A review of current literature reveals a lack of systematic guidelines which clarify how collaboration between researchers and policy-makers can actually be achieved. Therefore, this study aims to articulate a framework which satisfies these needs. We used Lasswell’s stages heuristic model, integrated with perspectives from Kingdon’s model, as a basis for building this framework, and conducted semi-structured interviews with nine experts in educational research and policy-making to gain understanding for how to effectuate their collaboration. The study identified six main stages for achieving effective collaboration, and the resulting framework could prove useful to future applications.


Land acknowledgments are an evolving practice to recognize local Indigenous Peoples as traditional stewards of their homelands. Using a content and discourse analysis, we conduct the first empirical study of U.S. land acknowledgment statements focusing on the 47 land-grab universities created under the 1862 Morrill Act. We find that LGUs tend to adopt statements in urban areas, where federally recognized tribes are present, and at institutions with over 100 enrolled Native American students. Land acknowledgment
statements also commonly name local Indigenous Peoples yet often fail to articulate their responsibilities to them, include superficial gestures, and center multicultural language. We offer “rhetorical removal” to describe the tendency of land-grab universities to deploy language that selectively erases Indigenous Peoples and, thus, argue that statements must directly address settler colonial legacies of violence and redistribute material support for Indigenous students and partnerships with Native nations.


The government of Chile mandated a system-wide reform in public school education in 2017. The reform calls for de-municipalization of the public school sector (345 municipal education departments under mayoral control) and the creation of 70 Servicios Locales de Educación Pública (SLEPs) between 2018 and 2025. The reform represents a largescale attempt to improve and save public education in Chile. This analysis is based on case studies of implementation of the first four SLEPs in the first year of the reform. Using Stake’s method for multiple case study analysis, the analysis explores how context influences the professional capacity of the SLEPs to provide professional assistance to schools. The study relates to research on the effectiveness of intermediate level agencies in school systems and on contextual influences on organizational innovation and capacity building. The analysis reveals that contextual factors shaping initial professional capacity of the SLEPs reinforced traditional practices of local education agency support to schools in three of the four cases. The differentiating factor centered on the actions of local agency leaders who responded to capacity gaps and lack of direction from government authorities as either constraints on change or as an opportunity for innovation.


We consider priority-based school choice problems with farsighted students. We show that a singleton set consisting of the matching obtained from the Top Trading Cycles (TTC) mechanism is a farsighted stable set. However, the matching obtained from the Deferred Acceptance (DA) mechanism may not belong to any farsighted stable set. Hence, the TTC mechanism provides an assignment that is not only Pareto efficient but also farsightedly stable. Moreover, looking forward three steps ahead is already sufficient for stabilizing the matching obtained from the TTC.


Omniprésentes dans nos vies et essentielles à la compréhension du monde, les mathématiques jouent un rôle clé dans de multiples domaines. Ce numéro montre leur importance dans la prévision de la mousson indienne, lors de la pandémie de covid19 (Norvège), dans la lutte contre la pauvreté au Sénégal ou la réduction de l’empreinte carbone des métavers. Il s’intéresse aussi à la difficile équation de l’enseignement des
mathématiques en Afrique du Sud et met en avant Maryam Mirzakhani, la première lauréate de la médaille Fields.


Ce rapport de l’IGÉSR analyse les relations entre les différents échelons administratifs afin d’identifier leur contribution dans la mise en œuvre opérationnelle des stratégies nationales et des politiques publiques dans les territoires, et de repérer les modes de collaboration mis en place.


Dans un nouveau rapport, la Cour des Comptes dessine un système éducatif composé d’établissements secondaires autonomes, sous contrat avec l’Etat et la collectivité locale. Leur financement dépendrait des résultats des élèves. A leur tête, un vrai manager doté de pouvoirs d’évaluation, de paye et de recrutement sur les personnels de l’établissement, enseignants compris. Pour la...


Cet article se propose d’apporter des informations synthétiques sur certains des principaux facteurs affectant la réalité éducative au Honduras. L’éducation y traverse une crise structurelle, multidimensionnelle et extrêmement complexe, liée à des facteurs internes au système éducatif ainsi qu’à des facteurs externes, nationaux et internationaux. Aperçu du contexte Située sur deux façades maritimes en Amérique centrale, la République du Honduras partage ses frontières avec le Guatemala, le Sa...

The present study, based on data concerning 2328 immigrant children attending a representative sample of 561 schools, investigates the impact of various group, family and individual characteristics as well as proficiency in the national language on acceptance and friendship among classmates, while controlling for measurement errors by means of a structural equation modelling approach. As regards group characteristics, the results indicate that only immigrant density in the classroom has a positive impact on social inclusion, which seems to be limited to peer acceptance. As regards family and individual characteristics, low-SES and female immigrants appear to be doubly vulnerable in class, which specifically affects their friendships. One of our main findings is that proficiency in the national language predicts the social inclusion of immigrant children, while controlling for all the other variables considered. A moderation analysis reveals that this factor also applies to second-generation immigrants. In conclusion, we suggest that interventions aiming to facilitate the social inclusion of immigrant children should take into account the fact that proficiency in the national language appears to be much more important than group, family and individual characteristics, and that low-SES and female immigrants require particular attention, since they are doubly vulnerable.


Face à la numérisation rapide, à la crise et à la transition énergétique, ainsi qu’à la nécessité de donner aux apprenants les moyens de gérer leurs carrières professionnelles et d’apprentissage, les pays européens ont mis à jour leurs systèmes d’enseignement et de formation professionnels (EFP), afin de s’adapter à l’évolution des besoins de compétences sur les marchés du travail. Incidences des nouvelles technologies, reconversion professionnelle, orientation..., le Cedefop a cherché à comprendre les grandes tendances qui façonnent l’EFP aujourd’hui pour répondre aux besoins de compétences de demain. Cette note expose les récents résultats de recherches sur la manière dont le contenu, le profil et la mise en œuvre de l’EFP devraient évoluer.


Students with high academic ability have unique educational needs. Like all students with special needs, they require evidence-based interventions to develop their potential. One recommended intervention is educational acceleration; however, some educators express concerns about this intervention, often due to worries about potential social issues. Little is known about educational acceleration in inclusive schools, where social inclusion is fostered. In this phenomenological study, we describe the experiences of young people between 17 and 28 years of age, who undertook grade-level acceleration in inclusive schools. The purpose of our study was to describe the experiences of students who moved into classes with older classmates and explore their attitudes towards grade-based acceleration. We also gathered their insights on factors to consider when deciding on acceleration. Participants expressed positive opinions about access to accelerative interventions; they emphasised the need for personalised choices and thoughtful decision making. Important considerations include the school’s social climate, supports available to students, and the educational needs of the individual student.
Cette synthèse présente une méthodologie pour analyser le fonctionnement et l’efficacité de l’administration de l’éducation. Les auteurs montrent que le fonctionnement d’une administration de l’éducation peut être analysé à quatre niveaux de capacité différents, à savoir le niveau individuel, le niveau organisationnel, l’administration publique dans son ensemble, et enfin, via sa relation avec les partenaires extérieurs. Les différents niveaux sont également fortement liés entre eux et dépendent les uns des autres. Par exemple, la formation des responsables de l’éducation n’améliore pas à elle seule le fonctionnement d’une administration. Elle doit faire partie intégrante d’autres initiatives qui s’attaquent aux contraintes de capacité au sein de l’organisation où travaillent les personnes formées.

Ce dossier invite à une réflexion spécifique sur les mutations induites par la crise sanitaire au sein du système éducatif de 10 pays différents en Europe et dans les Amériques. Plus particulièrement, en questionnant une partie spécifique des mutations liées à la crise sanitaire, chaque contribution participe à éclairer scientifiquement trois questions principales : quels types de mutations ont été observés au cours de la crise sanitaire au sein des systèmes éducatifs en question ? Dans quelle mesure ces mutations sont-elles destinées à perdurer, en laissant des traces plus ou moins profondes ? Qu’est-ce que ces mutations nous disent-elles des spécificités de chaque système éducatif observé, hors-temps de crise ?

Learner-centred education has become a global reform policy among Southeast Asian countries including the Philippines. This policy however raised critical issues in pedagogy as it placed learner-centred teaching in binary opposition with teacher-centred instruction, thus creating a simplistic dichotomy between good and bad teaching in the Philippines. With this research problem, this study used ethnographic methods to examine teacher and students’ understanding of what constitutes good pedagogy in one class within an urban public school in the Philippines. Ethnographic findings suggest that teacher-centred pedagogies are still valued by the students and teachers in this study not only as practices of good teaching but most importantly, as enactments of ‘academic care’. This ‘academic care’ provides an important orientation towards understanding how learner-centred pedagogies could be articulated for the Filipino context and could offer a possibility which bridges the presumed dichotomy between learner-centred and teacher-centred pedagogies in the Philippines.

The U@Uni Academy provides a case study of a composite preparation and access programme, integrating key elements of widening participation, alternate entry and enabling schemes. It is offered to students from a low socioeconomic background and focuses on non-traditional indicators of attainment in order to prepare for, access and successfully transition from secondary school to higher education. This article outlines the methodological and theoretical approach, purpose, and context surrounding the programme, as well as its significance within the contemporary Australian and international education systems. The strengthening momentum of alternate entry and enabling schemes within the context of equity and diversity in higher education is illuminated, highlighting the need for innovative approaches in this sector. Such a perspective invites the international education community to reframe how they approach attainment, admissions and success, shifting from a traditional focus on high-stakes, single-mark assessment, to a rich, layered and contextualised representation of a student’s skills and, through this, revealing the often invisible potential of a student. This is timely within the global context of future-focused tertiary education and debate surrounding admissions processes across the Australian higher education sector. Its significance is underscored by potential to influence the landscape of university admissions on a broader scale.


This study examines the classroom environment for students with disabilities in five pre-primary classrooms in Nairobi, Kenya. Creating an analytical framework based on CLASS, a classroom observation tool, we looked at the types of interactions children with disabilities had with their teachers and peers, using classroom observations and teacher interviews. The majority (63%) of interactions had a positive emotional tone for students with disabilities, and most (54%) were focused on instructional support. Teachers with more than three years of teaching experience had more positive emotional tone interactions and a higher incidence of instructional support. All five teachers displayed an effort to differentiate their instruction, and all teachers expressed an interest in additional training to help them support students with disabilities. Though a small sample, this finding suggests a counter-narrative to the assumption that teachers, particularly in sub-Saharan Africa, are not motivated to teach children with disabilities within mainstream classrooms. The sampled teachers were enthusiastic about teaching kids with disabilities and were building a warm, welcoming classroom environment through their daily interactions with these children. This created a strong foundation that teachers can build on, with support and training, to continue to differentiate instruction for children with disabilities.


La lutte contre le changement climatique et l’amélioration de l’éducation des filles sont essentielles pour réduire la pauvreté, pour des économies prospères et résilientes, des sociétés pacifiques et stables. Les systèmes éducatifs doivent s’adapter en urgence à ces changements. Le document appelle à une nouvelle approche des gouvernements,
des donateurs bi-/multilatéraux et privés et des organisations de la société civile pour faire face à ce changement dans et par l’éducation. Il donne un cadre d’actions prioritaires, notamment pour les pays à revenu faible et intermédiaire de la tranche inférieure, des connaissances, des compétences et des moyens d’action en matière de climat.


It has been known for some time that academic researchers are subject to diverse relations of production that influence the direction and ultimately the value of their scientific work. In this context, this study examines how the field of educational administration is practiced at higher education institutions in Turkey, how these practices have become socially integrated over the years and how a structurally cohesive core characterizes the discipline’s research activity. The study reviews 609 doctoral dissertations concerning educational administration from a longitudinal perspective (1988 to 2020) using a two-tier theoretical path: the role of academic familism and disciplinary cohesion in the field. The findings reveal that academic familism and disciplinary cohesion are interrelated and interdependent. Together they impact the formation of monolithic gendered, epistemic, and academic communities, consolidate gendered and monolithic academic networking, and limit cross-disciplinary interaction in the educational administration field.


More than two decades ago, UNESCO’s (1994) Salamanca Statement and Framework for Action on Special Needs Education galvanised the inclusion movement by providing a framework for inclusive education. The Statement succeeded in raising awareness of the concept of inclusion internationally, yet genuine inclusion is still the exception and not the norm. This is despite inclusive education being a fundamental human right under the United Nations Convention on the Rights of Persons with Disabilities (2008; CRPD in July 2008) adopted by the United Nations in 2006 as an international treaty and ratified by 181 countries that are legally bound to uphold its terms. In this paper, we examine education scholars’ uptake of the CRPD and GC4, relative to the Salamanca Statement, by conducting a citation analysis of literature published in journals from the fields of inclusive and special education between 1994 and 2019. We then look at how each document has been used in the literature over time and conclude with strategies to help improve knowledge of the CRPD / GC4 within education and discuss how these documents can be used to progress inclusive education internationally.


There is currently renewed interest in transnational education (TNE) amongst UK universities as a means of taking education to the 98% of tertiary students worldwide who are geographically immobile. In this discourse, the home universities are characterised
as the dominant players, seeking strategic opportunities to commercially expand into foreign markets. This paper argues that, in contrast, there are four key stakeholders in TNE—the home university, the partner organisation, the host government and students in the host country—and a TNE partnership is shaped by their relative power and motivations. The paper finds that unless the motivations of stakeholders are broadly aligned to the form of TNE partnership, it is unlikely to succeed. It highlights the fluid nature of these motivations which change over time—often slowly, but sometimes abruptly when there is a change in university strategy or policy on the part of the host government.


Cette étude de cas présente les forces et les faiblesses d’une série de quatre ateliers de l’INEE sur l’éducation sensible aux conflits (ESC) - octobre 2019, octobre 2020, février 2021 et mars 2021 - dans le cadre du consortium Never too Late to Learn en Tanzanie avec pour objectifs : consolider les connaissances de base des participants sur les Normes minimales de l’INEE, renforcer les compétences sur le thème de l’éducation sensible aux conflits afin de davantage utiliser pack de l’ESC. L’étude examine dans quelle mesure l’adaptation, la contextualisation et la cocréation de la formation, ont assuré un impact positif concret et amélioré sur le travail et l’institutionnalisation des participants.

Cette étude présente les forces et les faiblesses d’une série de quatre ateliers de l’INEE sur l’éducation sensible aux conflits (ESC) - 2019, 2020, 2021021 - dans le cadre du consortium Never too Late to Learn en Tanzanie avec pour objectifs d’augmenter les connaissances des participants sur les Normes minimales de l’INEE, de renforcer les compétences sur l’ESC pour une utilisation renforcée du pack de l’INEE et de renforcer son institutionnalisation. L’étude examine dans quelle mesure l’adaptation, la
contextualisation et la co-création de la formation, ont assuré un impact positif concret et amélioré sur le travail et l’institutionnalisation des participants.


Due to the rising linguistic heterogeneity in schools, the inclusion of pupils with a first language other than the language of instruction is one of the major challenges of education systems all over the world. In this paper, attitudes of in-service teachers, pre-service teachers and parents towards the inclusion of pupils with a first language other than the language of instruction are examined. Additionally, as the paper focused on how the participants perceive the development of this pupils in different school settings (fully included, partly included, fully segregated). Data from 1501 participants were investigated. Descriptive results showed that pre-service teachers’ attitudes towards the inclusive schooling of pupils with different language skills in composite classes were rather positive, while attitudes of in-service teachers and parents rather tend to be neutral. Regarding the results concerning the participants’ attitudes towards the pupils’ development in different school settings, all three sub-groups belief that pupils with German as first language would develop in a more positive way, compared to pupils without German as first language. Moreover, the migration background of pre-service teachers and parents had a positive influence on the participants’ attitudes.


In the digitally empowered society, increased internet utilization leads to potential harm to the youth through cyberbullying on various social networking platforms. The cyberbullying stats keep on rising each year, leading to detrimental consequences. In response to this online threat, the Indian Government launched different helplines, especially for the children and women who need assistance, various complaint boxes, cyber cells, and made strict legal provisions to curb online offenses. This research evaluates the relevant initiatives. Additionally, a survey is conducted to get insights into cyberbullying in higher education institutions, discussing multiple factors responsible for youth and adolescents being cyberbullied and a few measures to combat it in universities/colleges.


Despite growing interest in educating students with disabilities in mainstream environments over the last two decades in Lebanon, how students with disabilities and their parents identify suitable schools remains ambiguous. This research explores factors that influence students with vision impairments and their parents when selecting a school. It adopts Bronfenbrenner’s [1979. *The Ecology of Human Development: Experiments by Design and Nature*. Harvard University Press] ecological model. Qualitative data was gathered from 29 pre-secondary and secondary students with vision impairments, 10 parents, 14 headteachers and 9 leaders of governmental and non-governmental organisations. Findings reveal that for those requiring support provision, the school’s willingness to accept them and available support drive school selection. However, when
children do not require support provision, academic attainment, convenience and school reputation drive selection. Furthermore, findings showed that autonomous decisions were connected to ‘normalisations’ whereby students with vision impairments acted in a way considered ‘acceptable’ by society. It can be argued that whilst some schools offer access to education for some students with disabilities, those offers, and subsequently student retention, are often dictated by school and supporting authorities and made in an exclusionary rather than inclusionary manner, demanding adaptation from students rather than the educational environment.


Si la place du latin s’est amoindrie, le pourcentage d’une classe d’âge bénéficiant de cet enseignement est en fait beaucoup plus élevé actuellement qu’au XIXe siècle.


La pandémie a aggravé une crise de l’apprentissage. Et pourtant, même dans les contextes éducatifs les plus difficiles, certaines écoles obtiennent de meilleurs résultats que d’autres, situées dans des contextes similaires avec un niveau de ressources équivalent. Pourquoi ces écoles, connues sous le nom d’écoles « modèles positives », obtiennent-elles de meilleurs résultats en matière d’apprentissage, de rétention, d’équité et d’égalité des sexes ? L’initiative mondiale « Data Must Speak » (DMS) vise à combler le manque de preuves tangibles pour atténuer la crise de l’apprentissage. Le volet recherche examine ce qui fonctionne, et comment mettre à l’échelle des solutions de terrain. Cette revue méthodologique présente les définitions, concepts et méthodologies clés – dont l’approche modèle positif, une manière d’envisager le changement social et comportemental - afin de guider la mise en œuvre de la recherche DMS au niveau national. En s’appuyant sur des exemples tirés de la recherche en éducation et d’autres domaines, elle présente également les meilleures pratiques.


This study highlights political parenting after the introduction of National Security Education (NSE) in Hong Kong amid waves of political repression after the anti-extradition movement in 2019?2020. Do parents conform to or resist the new nationalistic, China-focused education curriculum that is inconsistent with their ideals of parenting and
children education? How do parents navigate these changes? Based on the interviews with 26 parent-stayers in Hong Kong, I uncover that beneath the public transcripts of compliance, there are low-profile forms of resistance through (1) political parenting?nurturance of acquiescent but critical thinkers and resistance to nationalization by preparing their children to embracing cosmopolitan values in pursuit of a migration dream and (2) parents? anonymous attempts to break the silence by using other dominant but depoliticized discourses to reconfigure their resistance to NSE. In so doing, they avoid provoking the authorities, while continuing to resist. These hidden transcripts are drawn from the cultural repertoires of parenting and liberal democracy in the pre-National Security Law (NSL) period.


Cet ouvrage vise un double objectif : mieux connaître ce secteur de l’enseignement supérieur professionnel de haut niveau que constituent les grandes écoles françaises, qui n’a guère d’équivalent dans la plupart des autres pays, et mieux se préparer aux épreuves de sélection qui règnent à leur entrée...


Cette thèse visait à documenter, à l’aide d’une approche théorique et empirique, les caractéristiques des politiques d’inclusion en Italie, en les comparant avec celles de la France et du Canada, ayant pris en examen la figure de l’enseignant. Le questionnement empirique qui a orienté ce travail s’inscrit au cœur des débats institutionnels et scientifiques relatifs à la question de l’éducation pour tous et des pratiques d’enseignement associées. Une étude complémentaire a été menée. Elle vise à analyser la situation réelle des pratiques inclusives dans une école afin de bien observer les approches socio-pédagogiques qu’un enseignant inclusif doit avoir vers cette type de public scolaire. Afin de documenter les pratiques effectives de soutien en contexte réel de la classe, comprendre les raisons des enseignantes à l’égard du soutien, le recueil des données a été réalisé par des entrevues individuelles générales et spécifiques avec les enseignants et la directrice de l’établissement. Les résultats montrent des pratiques d’enseignement emblématiques de modes contrastés de prise en charge des enseignants en classe. Une comparaison a été fait avec le système scolaire français et canadien (avec un public différent pour le dernier) afin d’analyser les différentes approches relatives à la prise en compte de la diversité en éducation. Ces études permettent d’ouvrir sur des implications pratiques dans le domaine de l’éducation inclusives des disciplines ordinaires et d’envisager des pistes concrètes pour enrichir la formation des enseignants dans la perspective de la mise en place effective et concrète d’une éducation inclusive pour les apprenants étrangers.
La fiche présente le contexte général, les bonnes pratiques (promouvoir des interventions holistiques qui garantissent l’accès ininterrompu à des opportunités éducatives de qualité, protectrices et inclusives ; promouvoir le déploiement de réponses en éducation rapides, dès le premier jour de la crise et des mécanismes de financements flexibles) et émet des recommandations.

This paper considers teacher education for teachers of learners with severe to profound disabilities (SPD) in South Africa, in both formal and non-formal learning programmes within a disability studies in education framework. Qualitative data were collected from a range of education stakeholders including non-governmental (NGOs) and disabled people organisations (DPOs). Based on a thematic analysis, findings show limited pre-service teacher education programmes focused on teaching learners with SPD. In-service teacher training through education departments and NGOs and DPOs, is usually through basic short courses or workshops and are not complemented by on-going support. We argue for a reconceptualization of teacher education in South Africa to prepare teachers to meet the diverse needs of learners, including those with SPDs within an inclusive education context. Skills in addressing barriers to learning should be infused throughout initial teacher education, in line with the principles of universal design for learning while impairment-specific knowledge can be offered in related modules that focus on reasonable accommodation for children with disabilities. In-service education can occur in formal and informal programmes and should empowers teachers to become lifelong learners.

Melha, E. N. (2022). COVID19 et continuité pédagogique pour les élèves handicapés (p. 41 p.). Consulté à l’adresse https://hal.science/hal-03951357
Alors que le monde entier est bouleversé en 2020 par une crise sanitaire sans précédent à cause de la pandémie du coronavirus, de nombreux pays adoptent le confinement comme mesure pour ralentir la propagation du virus. La scolarisation et les apprentissages sont interrompus, diverses solutions sont rapidement imaginées et mises en place pour continuer d’assurer les enseignements à distance aux élèves. Ces solutions prennent-elles en compte la pluralité de profil des élèves ? Qu’en est -il pour les élèves handicapés ? Ce rapport présente les résultats d’une enquête internationale réalisée de mars à avril 2020 durant la période de confinement, il propose des recommandations à l’attention de différents acteurs et à différents échelons.

This book compiles a superb body of research in the field of Educational Sciences. The eleven chapters that comprise it offer an overview of the main ...


In recent years, the Public Service Loan Forgiveness program has garnered more attention among student loan borrowers in the United States as a potential source of loan relief. However—at least prior to the PSLF Program Overhaul introduced in October 2021—arduous eligibility criteria, opaque communication on the part of the U.S. Department of Education and contracted loan servicers, and ongoing threats to the continuation of the program made for a skittish and frustrated group of enrollees. This article leverages a mixed methods study to explore the meaning borrowers ascribe to prospective loan forgiveness and interrogates how magical thinking contributes to enrollees’ perspectives on prospective loan forgiveness. With several of these sources of meaning standing in conflict with each other and with confidence in personal prospects of loan forgiveness fairly low, we argue that magical thinking overlays the meaning of potential loan forgiveness among some borrowers.


This study examines policies of English language teacher recruitment in Iran as part of broader education policies reflected in official national documents, and briefly investigates the implementation of these policies in selected educational institutions. Seven major documents are scrutinised using qualitative content analysis revealing three major categories of English language teacher recruitment policies: prioritising Islamic values and perspectives; emphasising commitment to the goals of the educational system; and focusing on recruited teachers’ knowledge and expertise. Moreover, interviews with three groups of participants at public schools, private language institutes, and universities showed clear discrepancies in translating the official policies into actual recruitment practices. In addition to considerations related to our local context, more broadly, we argue that language education policy as a rich research area, should be further studied in more specific sub-areas such as language teacher education policies, policies of language teaching materials development, and language assessment policies.

This study reports on the professional development and school leadership programmes requested by principals in Malaysian schools. A total of 557 principals provided feedback on their preferred school leadership and professional development programmes which they believed as essential to be effective school leaders. Based on their feedback, mentoring was named the most needed leadership development programme as it allowed access to the guidance, knowledge and skills of senior principals. As for school leadership courses mentioned by school principals, financial management was considered as most useful. The study concludes by recommending suggestions to improve principals' professional development programmes in Malaysia.


La République démocratique du Congo (RDC) s’est engagée, depuis 2019, à rendre effective la gratuité de l’enseignement primaire sur toute l’étendue du territoire national. Cette réforme trouve son fondement dans l’article 43 de la Constitution de 2006, qui impose à l’État de prendre en charge les frais de scolarité de l’éducation de base dans les établissements publics. Ces frais ont été initialement introduits dans les années 1980 pour couvrir les salaires des enseignants et les coûts de fon...


The study sought to explore rural and urban primary school heads’ perspectives on staff appraisal systems in Masvingo Province, Zimbabwe and utilised a qualitative approach based on a phenomenological design. Five rural primary school heads and five urban primary school heads with at least 14 years of experience were purposely selected. In-depth, face-to-face phenomenological interviews were conducted to collect the lived experiences of participants in relation to performance appraisal systems for teachers. Data were transcribed verbatim and analysed thematically. Three major themes emerged: (a) implementation of performance appraisals; (b) feedback and professional development; and (c) challenges with regard to the implementation of performance appraisals. The economic crisis in Zimbabwe has had a negative impact on school performance appraisal systems. Both school locations had implemented such systems, but were faced with limited resources, time constraints and teachers' lack of interest in being promoted. In looking at the differences between rural and urban school head participants, the focus was on observation and feedback processes. This study has important implications for staff appraisal systems in Zimbabwe.

OCDE. (2023). *Comment les établissements d'enseignement primaire publics sont-ils financés? Les indicateurs de l'éducation à la loupe, 82*(82). [https://doi.org/10.1787/462c666e-fr](https://doi.org/10.1787/462c666e-fr)

La manière dont les gouvernements décident du niveau de financement des établissements publics d’enseignement primaire varie considérablement, même si elle
répond généralement à des critères réglementés. Des restrictions sont généralement imposées sur les modalités d’utilisation des fonds alloués, qui doivent être affectés à des catégories de dépenses spécifiques. Cette pratique n’est toutefois pas universelle et les établissements de certains pays de l’OCDE disposent d’une très grande autonomie pour l’affectation de leurs ressources, même s’ils n’ont que peu d’influence sur le montant initial des fonds attribués.

OECD. (2022a). *How are public primary schools funded? Education Indicators in Focus*, (82), 1-6. https://doi.org/10.1787/7564ac6a-en

Gouvernements varient dans la manière dont ils décident du niveau de financement pour les écoles primaires publiques, bien qu’habituellement cela implique l’utilisation d’une combinaison de critères réglementés et de critères discrets. Ils attribuent également des restrictions sur l’utilisation des fonds en les affectant à des catégories d’expédition spécifiques. Cette pratique n’est pas universelle, cependant, et les écoles dans certains pays de l’OCDE disposent d’une grande autonomie pour l’allocation de leurs ressources même s’ils n’ont que peu d’influence sur le montant initial des fonds attribués.

OECD. (2022b). *How are public primary schools funded? Education Indicators in Focus*, 82. https://doi.org/10.1787/7564ac6a-en


En 2019, le nombre d’étudiants qui étudient à l’étranger a dépassé six millions, en augmentation de 35 % en cinq ans. Trois pays anglophones sont en tête des mobilités entrantes : les États-Unis, l’Australie et le Royaume-Uni. Pour la mobilité sortante, environ deux étudiants sur trois sont originaires d’Asie-Océanie (39 %) ou d’Europe (24 %) ; 9 % viennent des Amériques, 9 % d’Afrique et 8 % du Moyen-Orient. Le marché de l’éducation est très concurrentiel à l’échelle mondiale. Pour un pays, ...


As the debate on data in the society and in education grows the attention on data-trace as ‘primary material’ for governance, educational quality and innovation falls under the spotlights. In this context, HEIs have been put under pressure to adopt quantitative
metrics and evaluation approaches enhancing the massive collection of trace data. Nonetheless, each university overall, and the academics specifically, might respond differently to this context of innovation. The present article aims to explore data practices in two higher education institutions. Two relevant areas for the imaginaries related to data and quantification were explored: (a) evaluation of quality in teaching and learning; (b) data to support assessment. The study is based on a survey distributed to the whole university teaching staff of two institutions. Descriptive and inferential statistics comparing multivariate sample means (MANOVA) were applied to 601 responses collected. The results indicated the prevalence of institutionally consolidated data practices relative to quality teaching evaluation, with fragmentation and isolation in some emerging data practices connected to decision-making and teaching and learning. Moreover, each of the universities revealed distinct institutional profiles which could be put in connection with the organisational culture. The results are discussed in light of the potential strategies at the institutional level, particularly regarding faculty development as means to build a visible, contextualised data culture.


The COVID-19 pandemic has significantly affected the higher education sector in Singapore. Existing tertiary studies seeking to understand the in-traperiod response to COVID-19 often focus on single institutions, jurisdictions or stakeholder groups. This study is the first in-depth qualitative multi-stakeholder examination of the higher education environment in Singapore during the COVID-19 pandemic. It explored the perceptions of the quality of digital pedagogy during COVID-19, how universities have adapted because of the pandemic, and how leaders, teaching staff and students have been affected by the management and educational changes via 13 semi-structured interviews across six Singapore higher education institutions. Through purposive sampling, we explore current stakeholder perceptions, structural education changes, and personal learning and teaching impacts of COVID-19. Applying Braun and Clarke’s approach to thematic analysis, we inductively uncovered four major themes: the Singapore government’s approach to COVID-19 and its effects on delivery; academic leadership approaches; education technology; and well-being. This article is critical as a key foundation to understand how Singapore is responding with unique geopolitical differences. We discuss the practical implications of our research for current university faculty and students during and beyond the pandemic, and outline opportunities for future research.


Au moment de la pandémie de COVID-19, la plupart des établissements d'enseignement supérieur n'étaient pas préparés au passage soudain à
l’enseignement/apprentissage à distance d’urgence. Par conséquent, de nombreuses généralisations sont apparues dans le discours public concernant ses effets négatifs et les avantages de l’enseignement/apprentissage en face à face. Néanmoins, les leçons tirées de la mise en œuvre d’urgence de l’enseignement/apprentissage à distance durant la pandémie de COVID-19 doivent être intégrées dans un ensemble complet de connaissances de la valeur et des limites de l’enseignement/apprentissage en ligne. Dans cette optique, ce rapport présente les résultats systématiques d’études menées avant et pendant la pandémie et portant sur l’efficacité de l’enseignement/apprentissage en ligne planifié et de l’enseignement à distance d’urgence, d’autre part. Il explore les différences entre les deux et cherche à déterminer si la plupart des effets négatifs attribués à l’enseignement à distance d’urgence sont dus à l’enseignement en ligne lui-même ou si cet enseignement n’a pas bénéficié d’une planification complète puisqu’il s’agissait d’une réponse rapide à une situation de pandémie.


Inclusive education is affirmed in Icelandic laws and regulations although, at upper secondary school level, schools can apply to establish special programmes for students who have been labelled as disabled. The application process for these programs differs from the one in the mainstream regarding arrangement and time. In this article, special attention will be paid to the application process for Icelandic students with intellectual disabilities at upper secondary level. We use Alecia Jackson’s and Lisa Mazzei’s methodology of thinking with theory by ‘plugging’ Iris Marion Young’s philosophical concepts of oppression regarding social justice into the text, and vice versa. This approach reveals a discriminatory application process where cultural imperialism has the upper hand causing a denial of group differences. Students are being marginalised based on their support needs which can, among other things, result in systemic violence.


Entrepreneurial higher education institutions (HEIs) have gained significant traction, both in theory and practice. The concept has evolved from academic entrepreneurship, which gained prominence in the 1990s, into a more comprehensive notion at institutional level and has been an influencing factor for governmental decisions and the region’s economic development. This study seeks to present an overview of the evolution of entrepreneurial HEI research and provide a description of the structures characterizing it. This paper presents an in-depth examination and analysis of the current state of research and published literature related to entrepreneurial HEIs. A descriptive bibliometric analysis coupled with content analysis is presented, incorporating citations included in Scopus’ multi-disciplinary database over the last 25 years. Two software packages—VOS viewer and Bibliometrix R were employed to probe the research questions and create
visualizations of the bibliometric networks. Thematic mapping of the multifaceted research field is illustrated and emerging trends of are identified. Findings suggest that the research on entrepreneurial HEI has been pioneered by USA followed by UK and other European countries. Moreover, the research seems to be fragmented and more focused on only entrepreneurial universities. Future research needs to consider colleges and smaller institutions alongside larger universities. Also, further steps need to be undertaken to encourage and enable cross-border international collaboration, so as to draw learning together from different national and regional contexts.


COVID-19 lockdown has caused disruption to education of all levels with far-reaching implications and unveiled the shortfalls of the current education model. Cycles of tightening and relaxation of COVID-19 lockdown confer uncertainty to the continuity of education. This article aims to comprehensively present the impacts of COVID-19 on primary, secondary and tertiary education and propose sound educational practices in the COVID-19 era. Papers related to educational impacts and implications of COVID-19 were selected for this review through a PRISMA model. The review shows that a shift of learning remotely or online has affected educators and learners, especially in relation to learning loss among learners, limitations in instructions, assessment and experiential learning in virtual environment, technology-related constraints, connectivity, learning resources and materials, besides psychosocial well-being. These impacts are exacerbated by inequalities in the distribution of resources as well as inequities attributed to socioeconomic status, gender, ethnicity, learning ability and physical conditions. The recommendations for future educational practices comprise adaptability of curricula to embed independent and online learning options, concurrence of diverse learning modalities for seamless learning transitions and flexibility, flexible staffing and learning model, enhanced support, technological and curricular innovation with simplification and standardization, as well as interactive, responsive and authentic virtual environment. This review contributes significantly to enhance preparedness of education to crisis while ensuring continuity and quality of education in the era of COVID-19 uncertainty.


En se concentrant sur le handicap, le rapport fournit une analyse de l’éducation inclusive dans les pays arabophones de la région Moyen-Orient et Afrique du Nord (MENA) afin de formuler des recommandations sur les mesures à prendre à l’avenir. Bien qu’il se concentre sur le handicap, il reconnaît que d’autres groupes d’apprenants sont marginalisés ou exclus de l’enseignement. Le rapport examine les obstacles à l’inclusion et met en évidence les progrès réalisés et les actions nécessaires pour garantir une éducation inclusive de qualité. Les études de cas présentées mettent l’accent sur les efforts déployés dans la région, tels que le développement des capacités dans l’enseignement primaire et secondaire et la mise en place des systèmes de bons d’études.
Ce rapport analyse les dépenses affectées à l’éducation au sein des pays d’Asie-Pacifique. Il apparaît notamment que certains secteurs de l’éducation ont été sous-financés, en particulier l’enseignement secondaire, tandis que davantage de moyens ont été investis pour les étudiants du supérieur. L’enseignement primaire, quant à lui, représente encore souvent l’une des plus grandes parts payées par les ménages, bien qu’il soit le sous-secteur qui bénéficie généralement de l’un des financements publics les plus importants. Pour ces dépenses éducatives, de nombreux pays bénéficient d’une aide étrangère, de fonds communautaires, ainsi que de contributions du secteur privé.

UNESCO IESALC - International institute for higher education in Latin America and the Caribbean. (2022). The higher education we want: youth voices on the futures of higher education. Consulté à l’adresse https://unesdoc.unesco.org/ark:/48223/pf0000382995
Que pensent les jeunes de l’avenir de l’enseignement supérieur ? Plus de 100 jeunes de 15 à 17 ans ont été consultés dans 43 pays. Ce rapport révèle leurs visions de l’enseignement supérieur et montre comment ils envisagent l’avenir. Problèmes mondiaux tels que la pauvreté et la guerre, changement climatique et développement durable…, les espoirs et les préoccupations des jeunes pour 2050 sont remarquablement similaires dans le monde entier. La plupart des participants estiment que l’acquisition de connaissances constitue le principal avantage de l’enseignement supérieur, et non simplement l’amélioration de leurs perspectives d’emploi. Les jeunes réfléchissent également à la manière dont il peut avoir un impact sur leurs sociétés et communautés locales et mondiales. Plus de 90 % des jeunes envisagent actuellement de poursuivre des études supérieures. Beaucoup prévoient d’étudier les sciences, la technologie, l’ingénierie et les mathématiques (STIM) ou les sciences sociales. Ils pensent que l’enseignement supérieur devrait être plus accessible, innovant, de grande qualité, durable, et équitable.

Cette note fournit des recommandations pratiques pour : 1) renforcer les efforts de préparation conjoints et coordonnés entre le ministère de l’Éducation et les partenaires humanitaires comme condition préalable à des interventions d’ESU rapides et efficaces ; 2) renforcer le rôle des ministères de l’Éducation lors des interventions d’ESU ; 3) favoriser un environnement propice à un engagement et un leadership efficaces du ministère dans la prévention, l’atténuation, la préparation et la réponse aux urgences.

In September 2022, the Transforming Education Summit called on governments and the international community to mobilize action to transform education systems, including increasing equity in education spending towards achieving Sustainable Development
Goal 4 on quality education for all. To examine the equity issue in education, this brief presents findings on equitable education financing using the latest data from 102 countries and territories, highlighting the urgent need to target resources to reach the poorest and most marginalized. It discusses the challenges of not only inadequacy but also inequity in national education spending and international aid to education, and explores how equitable education financing can help address the global learning crisis. The brief presents key policy actions that governments and stakeholders must urgently take to respond to these challenges and transform education with equitable financing.


While research on education for sustainable development (ESD) is expanding, empirical evidence on its impact and outcomes remains very limited. Moreover, the facilitating role of the school organization, while extensively documented in literature on school management and school effectiveness, is lacking. In this study we present and qualitatively validate a framework for an ESD-effective school, previously developed via a critical review of ESD and school management literature. This framework consists of eight characteristics: sustainable leadership, school resources, pluralistic communication, supportive relations, collective efficacy, adaptability, democratic decision-making and shared vision. Via semi-structured interviews, the framework for an ESD-effective school was theoretically validated via a sample of 19 teachers and school leaders with expertise in ESD. The findings from the interviews show that the participants largely confirm the framework and the individual characteristics are recognized by the sample. There were relevant differences between the respondents in terms of positioning the different characteristics within the framework. Specifically, views on pluralistic communication differed from the initial conceptual framework.


La République orientale de l’Uruguay est le plus petit pays d’Amérique du Sud, après le Surinam, avec une surface de 176 215 km². Avec 3 286 314 habitants, selon le dernier recensement de l’Institut national de statistiques (INE) en 2011, elle se situe au dixième rang des douze pays d’Amérique du Sud. Montevideo, la capitale, est la ville la plus peuplée avec 1,3 million d’habitants et une zone métropolitaine d’environ 2 millions, soit 56,3 % de la population totale. Selon les Nations unies, ...


This article presents findings from a representative case study of a typical childcare centre in Singapore that achieved an emerging level of quality certification despite being under-resourced as a non-profit centre. Like other centres, it was navigating a
climate of early childhood care and education (ECCE) policy reforms and teacher shortage. Given that quality rating has existed for a few years, the study aimed to explore centre-based conditions that could hinder or facilitate teachers’ distributed pedagogical leadership and the development of a community of practice – both assumed to be necessary for teachers’ continued learning and improvement of centres’ practices. Qualitative data were generated across 10 months through observations, individual interviews and focus group discussions to journey with the teaching team as they negotiated relationships and built a shared vision for their practices. Results are presented here as three overarching themes that explicate: (a) the inevitable influences of the national context of the sector’s workforce; (b) organisational culture and power relations; and (c) pedagogical vision. These illustrate the intricacies involved in centre-based quality improvement work, signalling the need for more investigations into the everyday realities of ECCE reforms as experienced by teachers-as-learners and leaders.


Higher education’s rapid expansion is paired with growing social expectations of its benefits and concern on its teaching quality. In response to these, institutional/national surveys based on an array of theories are widely used in universities for quality assurance, enhancement, and benchmarking. This paper reviews three major types of instruments used for such purposes, including two distinct schools of theory that have guided the development of such assessment in the United States, Australia and the United Kingdom and then spread to the other parts of the world. The theories shaping the development of the two instruments, the dimensions assessed, and the challenges and criticisms involved when using such instruments for quality assurance are each discussed. This review concludes with a call for comparisons of different lines of research in this area, discussions on student learning experience that include more diverse characterizations of student experience across different educational contexts, development of tools to enable distributed leadership among teachers, and encouragement of students as partners for quality enhancement in higher education.


We evaluate the effects of an online self-assessment tool on teachers’ competencies and beliefs about ICT in education. The causal impact of the tool is evaluated through a randomized encouragement design, involving 7,391 lower secondary teachers across 11 European countries. Short-run impact estimates show that the use of the tool led teachers to critically revise their technology-enhanced teaching competencies (-0.14 standard deviations) and their beliefs about ICT in education (-0.35 s.d.), while there is no impact on their probability of taking specific training. The effects are concentrated among teachers in the top-end tail of the distribution of pre-treatment outcomes. We provide
suggestive evidence that the feedback score provided by the tool triggered such results by providing a negative information shock.


In recent years, student-centered learning has undergone significant changes influenced by the introduction of the competency-based approach to the digital learning environment. The new approach places a teacher at the center of the educational process taking into account professional competencies and personal interests of educators to foster the improvements of methodological, organizational, and technological support of personalized learning. The sample (N = 36) consists of the 3rd year students of University (KazNPU). The research methodology uses the following metrics to test the psychological and emotional characteristics of students: Communication Skills Assessments and Analysis of Cultural and Value Orientations. The study revealed a background of discomfort with the current system of education - about half of the respondents experience psychological and emotional stress due to the current education format. In addition, after the implementation of the program it was found that the SCL configuration model, applied to distance learning, had a significant impact on students. Statistical analysis of the chi-square indices of general fit ($\chi^2 = 122.77$) shows a good fit to the set of data points. The results can be used by educators and in future research to analyze the feasibility and advantages of digital educational processes in other geographical regions.


The use of reinforcement is widely researched and has been demonstrated as an effective method to increase desired, appropriate behavior and to decrease problematic behavior at both the individual and group level. This study aimed to identify
what types of reinforcement Jordanian preschool teachers employ in the classroom and if they perceive their students as benefiting from reinforcement. A total of one hundred seventy-eight (178) teachers participated in the study. An open-ended questionnaire was used to collect data from preschool teachers. The data were then translated from Arabic to English. Four main categories were identified from the data analysis process: verbal, tangible, social and activity reinforcement. Analyses revealed that teachers emphasized verbal reinforcement the most, favoring general over specific praise, followed by tangible, social and activity reinforcement as the least. Moreover, teachers reported twenty-three (23) benefits of using reinforcement with children at this age, which were grouped into six main themes: behavioral specific, internal specific, social specific, learning specific, perceived child preference, and general. Teachers reported that reinforcement directly and positively affect children. Recommendations for teachers are also presented.


Although there is increased need for closing the gap between educational research and policy to better enable effective practice, addressing the problem remains a challenge. A review of current literature reveals a lack of systematic guidelines which clarify how collaboration between researchers and policy-makers can actually be achieved. Therefore, this study aims to articulate a framework which satisfies these needs. We used Lasswell’s stages heuristic model, integrated with perspectives from Kingdon’s model, as a basis for building this framework, and conducted semi-structured interviews with nine experts in educational research and policy-making to gain understanding for how to effectuate their collaboration. The study identified six main stages for achieving effective collaboration, and the resulting framework could prove useful to future applications.


Study of the conditions necessary to promote the awakening of didactic vigilance for primary school teachers undergoing initial training. This article is based on the definition of teachers’ didactic vigilance in order to consider the conditions of the trainer’s vigilance in the initial training of primary school teachers assigned to kindergarten. We associate the exercise of a certain vigilance of the trainer with the improvement of the link between theory and practice in the trainees. The exercise of VDT requires particular conditions to grasp the needs of the trainees to this end, we have developed a training scenario that we describe. We analyse the data produced by its implementation.


Throughout the world, cooperating teachers are crucial for initial teacher training. This article proposes a double validation of a competence reference framework for the training of cooperating teachers. This validation is based on the one hand, on
international literature and, on the other hand, on the analysis of the answers of 854 French-speaking Belgian cooperating teachers to a questionnaire on the ideal level of proficiency in the tasks inherent to their function. The results indicate a strong convergence between the proposed competence reference framework, the literature review and the opinion of the 854 cooperating teachers. This strong convergence shows the relevance of the proposed competence reference framework for the training of cooperating teachers in French-speaking Belgium and elsewhere.


Many prior studies have explored average differences in initial levels of teaching effectiveness among graduates from different teacher preparation programs (TPPs) and the features of preparation that predict these differences. We focus on another important dimension of effectiveness—how graduates from different TPPs improve over time. Examining all graduates from Tennessee TPPs from 2010 to 2018, we find meaningful differences between TPPs in both initial level and early-career growth in teaching effectiveness. We also find that different TPP features explain part of these differences. Yet the features that correlate with initial teaching effectiveness are not the same features that correlate with growth. This article informs policy decisions around TPP evaluation and identifies new directions for future research in TPP effectiveness.


Sorting students on the basis of their academic performance into hierarchically ordered curriculums (i.e., between-school tracking) is common practice in various educational systems. International studies show that this form of tracking is associated with increased educational inequalities. As track placement is often based on teacher recommendations, biased track recommendations may contribute to this inequality. To shed light on the role that teachers play in the reproduction of inequalities in school, we conducted a systematic review of 27 recent articles on teachers’ between-school tracking recommendations and students’ socio-economic or ethnic background. We find that teacher recommendations are biased against students from disadvantaged socio-economic backgrounds, yet evidence with respect to ethnic biases is more mixed. While student, parent, teacher, and contextual factors seem to play a role in tracking recommendations, they cannot account for the biases in tracking recommendations. We discuss promising areas for future studies and argue that research on institutional moderators may have more potential than research on psychological mediators to effectively reduce bias in educational institutions.


« Les pratiques collaboratives sont mises en avant aujourd’hui comme un moyen de développer des compétences reconnues comme essentielles dans le monde connecté... »
du XXIe siècle. Il y va en effet de la capacité de nos sociétés à vivre et agir ensemble, avec une ouverture aux autres, dans le respect des valeurs de la République ». Le…


Ces 20 fiches ont pour but de présenter de manière synthétique certains concepts clés issus de la recherche en pédagogie universitaire (apprentissage hybride, approche compétence, classe inversée, e-learning, pédagogie active, portfolio, etc.). Chaque fiche propose une définition du concept en une phrase, puis en moins de 200 mots. Des références pour approfondir le sujet sont également proposées.


L’article se présente sous la forme d’une note de synthèse consacrée au positionnement énonciatif du sujet dans l’écriture de recherche en sciences humaines, appréhendée ici sous l’angle de la réflexivité. L’objectif général est de rendre compte d’un ensemble de travaux disponibles sur cette notion large et polysémique dans différentes disciplines. L’article explore ainsi plusieurs manières d’envisager la réflexivité dans l’écriture de recherche et étudie en quoi ces différentes conceptions théoriques peuvent nourrir la réflexion relative au positionnement énonciatif des doctorants dans leur thèse, à travers différents je symbolisant ce positionnement.


Inscrite dans le cadre de l’analyse de l’activité comme préalable à la conception de formation, cette thèse est réalisée avec des selliers-formateurs de l’Institut Français du Cheval et de l’Équitation au cours d’un processus participatif, collaboratif et itératif. Nous mobilisons les outils et concepts de la didactique professionnelle pour co-élaborer avec les professionnels des graphes de fluences afin de saisir les organisateurs des gestes professionnels. Ceux-ci sont appréhendés grâce au concept de schème, qui permet d’analyser les différentes dimensions du geste et leur organisation en intégrant des questions de performance et de santé au travail. Pour cela, nous confrontons les selliers-formateurs à des traces de l’activité professionnelle, aux différentes versions des graphes et à notre questionnement pour identifier des composantes de leurs schèmes, à partir desquelles les graphes sont co-élaborés. Nous montrons d’une part que ces graphes peuvent nous permettre d’identifier des organisateurs de l’activité qui jouent un rôle dans la prévention des risques de troubles musculosquelettiques et d’autre part qu’au cours du processus, ces représentations externes deviennent des objets intermédiaires de conception. Porteurs de systèmes de médiations dont se saisissent les différents utilisateurs, ils remplissent différentes fonctions : instruments visant de futures formations, aide à la sélection des extraits des données vidéoformatives pour la production de vidéos destinées à la formation, grille de leur analyse lors des séances de vidéoformation. Les choix, actions et interactions interindividuelles organisant la conduite du projet sont des marqueurs de la construction sociale, épistémologique et pragmatique de la conception.


In this review, we evaluate the claim that translanguaging in the classroom supports the development of the bilingual lexicon by enhancing cross-linguistic transfer. To address this issue, we integrate findings from psycholinguistics and educational sciences in order to identify how effective pedagogical practices for monolingual children can be extended to pedagogical practices for bilingual children. We show that both monolingual and bilingual children benefit from teaching strategies that strengthen the mental connections between semantically and phonologically related words, and that for bilingual children, these strategies should support both within- and cross-language connections. We argue that by stimulating the use of the home language in the classroom, translanguaging strategies like multilingual label quests and multilingual reading and writing can strengthen cross-language connections and, thereby, facilitate cross-linguistic lexical transfer. For closely related languages, stimulation of the home language has the additional benefit of implicitly facilitating the transfer of cognate vocabulary. Explicit instruction about cognates could further stimulate the development of cognate awareness, but whether it also enhances vocabulary learning is still an open question.


This qualitative study investigated teachers’ views on differences in children with disruptive behavior and high versus low levels of callous-unemotional (CU) traits in response to classroom management strategies, instructional methods, and teacher-child and teacher-caregiver relationship quality. Twenty teachers from three Chinese preschools were interviewed about 40 children with disruptive behavior (aged 4–6 years). Teachers perceived children with CU traits to have more severe disruptive behavior, poorer quality teacher-child and teacher-caregiver relationships and to be less responsive to discipline. The implications of findings for school-based intervention promoting engagement and prosocial behavior for children with CU traits are discussed.


Dans quels environnements les chargés d’ingénierie pédagogique exercent-ils aujourd’hui et comment cette activité a-t-elle évolué ? En quoi la diffusion du numérique dans la formation professionnelle continue nécessite-t-elle la mise en œuvre de capacités spécifiques dans la conception de formation ? L’objectif de la thèse est de repérer, dans différents contextes et situations, la manière dont des personnes en charge d’ingénierie pédagogique sont mises en capacité d’utiliser le numérique en formation continue des adultes. La revue de question sur la professionnalisation digitale de la
formation et de ses acteurs montre que les recherches portent principalement sur le développement professionnel dans l’enseignement supérieur en lien avec les TICE. La revue de la littérature scientifique sur l’ingénierie pédagogique situe cette dernière comme une activité distribuée qui s’est complexifiée avec le développement du numérique en formation. Pour étudier la digitalisation de l’ingénierie pédagogique, nous adoptons une démarche inductive à partir de deux corpus : 212 offres de stages en ingénierie pédagogique et des parcours professionnels de chargé-e-s d’ingénierie pédagogique (entretiens auprès de 21 professionnel-le-s et spécialistes). Le premier corpus nous permet de mettre au jour les activités formelles et les profils attendus par les entreprises en ingénierie pédagogique, ainsi que la part croissante du numérique dans ces activités, le second corpus de montrer comment les professionnels sont effectivement mis en capacité d’introduire le numérique dans leur ingénierie, en termes de ressources, d’opportunité et de choix. Sur le plan méthodologique, nous mobilisons le cadre de l’approche par les capabilités, issu initialement des travaux de Sen (1999b).


Depuis sa création au Moyen Âge, le doctorat a connu de profondes mutations. Longtemps placé sous le signe de la rhétorique et du débat, l’exercice de recherche écrit, qui se matérialise sous forme de thèse, date seulement du 19ème siècle. La nature scientifique du doctorat est donc récente. Aujourd’hui, dans la plupart des pays, les caractéristiques communes du doctorat en sciences humaines, en dépit de différences entre les disciplines et les universités, sont que son obtention nécessite la...


This research was designed to examine how teachers and students from various cultures (China vs. USA) might present distinct behavioural features in learner-centred classrooms. The findings of the research would serve the purpose to answer the question regarding whether and how learner-centred instruction could better support the learning of students from non-Western cultures. Chinese students experiencing learner-centred instruction (the experimental group), Chinese students from traditional classrooms (the control group), and American students responded to measures assessing their perceived teacher behaviours, and their own learning behaviours along with other two highly relevant variables, namely academic motivation and self-efficacy. The results indicated that Chinese teachers and students in the experimental group presented certain distinct behavioural features in comparison to both control group and American group. It suggested that the implementation of learner-centred instruction brought certain behavioural changes for Chinese teachers and students. However, on the other hand, their behavioural changes were not completely consistent with expectations. For instance, Chinese teachers in the experiment group did not present better performance in empowerment and individualized instruction, and their students did not exhibit more autonomous and self-directed learning behaviours as expected. The implications of the research were discussed in the paper.


This multiple methods pilot study aimed to determine the effects of brief mindfulness and SEL training during student teaching seminars for pre-service educators. Participants completed quantitative measures of efficacy and empathy (n = 13), contributed qualitative journal (n = 12) and session response (n = 48) data. Significant increases in teacher efficacy were found. Qualitative findings supporting this increase along with additional themes are discussed. Findings suggest that brief training in mindfulness and SEL should be included in preservice teacher training and may be a cost effective way to promote teacher well-being. Additional recommendations for practice and research are included.


This article examines the complex process of teachers’ care for students in contexts of inclusive refugee education in Jordan, where Syrian refugees and Jordanian students study together. I illustrate that while teachers’ caring practices represent efforts to support refugee students, they are limited by teachers' inability to see the social, structural, and systemic power dynamics that restrict Syrian refugees, reifying unequal relations of power between refugees and nationals. National teachers are embedded in the social fabric of the societies in which they live and not impervious to the discriminatory attitudes towards refugees, thereby limiting the extent of their care. This article illuminates the complexity of inclusive refugee education and concludes with implications for teacher education and professional development.


Si dans toutes les sociétés la figure de l’ancien est une composante de la structure sociale, qu’en est-il aujourd’hui dans le champ des pratiques et des établissements qui œuvrent dans le social, le médico-social et le soin ? Explorer l’idée d’« ancien » dans la diversité des sens, en repérer les fondements dans les structures sociales donnera les contours sémantiques pour éclairer la thématique de ce numéro. Au fil de paroles et récits d’anciens – anciens enfants/adolescents –, se profilerà en quoi, dans la chaîne des connaissances et des savoirs, les anciens sont, peut-être, maillons de transmission. Si la place des usagers des dispositifs est inscrite dans la loi et fait partie intégrante des projets, de nouvelles formes s’expérimentent. Elles relèvent le défi d’inscrire les savoirs d’expérience vécue dans la mise en œuvre des projets. Dans quelques placards et recoins reposent des dossiers, archives où se côtoient traces de mots, récits de professionnels et d’« usagers », dessins et photos. De temps en temps, un enfant, un adolescent, un adulte, en quelque occasion, demande à rouvrir cet espace de mémoire. Quelle place y ont ces acteurs, que représentent les anciens dans les centres de formation, qui sont par essence des lieux de transmission ?


Raciolinguistic ideologies are sets of beliefs about language which frame racialised communities as displaying linguistic deficiencies which require remediation. These ideologies are tethered to European colonialism and white supremacist logics which have long been normalised and actively written into teacher education policy in England. In this article I argue that raciolinguistic ideologies are integral to the contemporary, state-crafted policy assemblage that pre-service teachers and teacher educators must navigate, including the Teachers’ Standards, the Core Content Framework and various documents produced by Ofsted, the schools inspectorate. I argue that this policy assemblage represents a form of hostile governance which is attempting to derail and curtail anti-racist efforts. I show how raciolinguistic ideologies surface under guises of career advancement, pedagogical excellence, scientific objectivity, research validity and social justice. These guises operate to coerce pre-service teachers and teacher educators to reproduce raciolinguistic ideologies in their own practice, reduce professional agency and place responsibility on low-income and racialised communities to modify their language towards idealised whiteness. The article ends with some proposals for how teacher educators might find cracks in this oppressive system, in locating spaces for resistance which seek to undo harmful and colonial ideologies about language in the struggle against white supremacy.

While the effects of distributed leadership are widely studied, how to understand this practice in sociocultural contexts is relatively unknown. Mostly only one contextual level – such as the school level – is studied. We included individual, team, and school levels, and investigated differences in distributed leadership among 14 collaborative innovation-oriented teacher teams (130–168 teachers and their principals). Using a mixed-method design, we found that distributed leadership is associated with experiencing no threshold when it comes to asking advice, as well as with teachers looking beyond their classrooms. This occurs when teachers and school principals generate a ‘collaborative spirit’ to improve education.


Learner-centred education has become a global reform policy among Southeast Asian countries including the Philippines. This policy however raised critical issues in pedagogy as it placed learner-centred teaching in binary opposition with teacher-centred instruction, thus creating a simplistic dichotomy between good and bad teaching in the Philippines. With this research problem, this study used ethnographic methods to examine teacher and students’ understanding of what constitutes good pedagogy in one class within an urban public school in the Philippines. Ethnographic findings suggest that teacher-centred pedagogies are still valued by the students and teachers in this study not only as practices of good teaching but most importantly, as enactments of ‘academic care’. This ‘academic care’ provides an important orientation towards understanding how learner-centred pedagogies could be articulated for the Filipino context and could offer a possibility which bridges the presumed dichotomy between learner-centred and teacher-centred pedagogies in the Philippines.


En parcourant la littérature scientifique et professionnelle en enseignement supérieur, il arrive fréquemment de lire qu’un doctorant sur deux abandonne ses études. Un tel taux d’abandon est-il alarmant? Est-il réaliste, voire souhaitable, que tous les doctorants achèvent leurs études? Quelles que soient les réponses à ces questions, il est généralement admis que l’encadrement joue un rôle prépondérant dans la persévérance aux études. Toutefois, il n’est pas aussi aisé qu’il y paraît de questionner les pratiques pédagogiques dans le cadre de l’encadrement. Dans cet article, les auteures s’appuient sur les résultats d’une recherche menée auprès de 20 doctorants et de 20 directeurs de recherche sur leurs expériences de l’encadrement à la recherche. Elles se penchent sur les potentiels effets de l’encadrement sur la persévérance aux études doctorales en trois temps : 1) un recrutement guidé, dès le début, permet d’éviter certains abandons; 2) la communication transparente, notamment pour gérer les inévitables deuils, affecte favorablement la poursuite des études; 3) l’insertion professionnelle, pensée tout au long du parcours, permet de cibler des objectifs concrets et de mieux amener l’étudiant à se préparer à la suite. Les questions et les réflexions ponctuent cet article de manière à apporter un regard scientifique et pragmatique tout en admettant le travail qui reste à effectuer pour valoriser l’encadrement à la recherche et ses limites.
Malgré les progrès réalisés en matière de parité des genres, en milieu universitaire, les femmes demeurent désavantagées sur plusieurs plans. En tant que professeures, chercheuses ou étudiantes, elles ne bénéficient pas des mêmes possibilités que leurs confrères. Dans cet article, nous présentons les résultats d’une étude de cas mettant en exergue l’accompagnement par les pairs entre doctorantes devant s’approprier des compétences rédactionnelles pour s’insérer dans leur champ de recherche. En nous appuyant sur le cadre théorique de socialisation au métier de chercheur développé par Skakni (2011), nous analysons des extraits d’entrevues semi-dirigées menées auprès de 25 doctorantes provenant d’universités canadiennes. Les résultats révèlent une préférence des participantes de s’associer à leurs semblables dans des groupes de rédaction académique afin de normaliser les défis auxquels elles font face en milieu universitaire. De plus, elles semblent accorder autant de valeur à l’accompagnement dont elles bénéficient de leurs pairs que du soutien qu’elles offrent à leurs consœurs. En définitive, il en ressort des collaborations, autant professionnelles que personnelles, par l’établissement d’un réseau de chercheuses novices qui privilégient la solidarité, plutôt que la compétitivité habituellement observée aux cycles supérieurs. La discussion porte sur la perspective féminine de cette culture de compétitivité et des différences de genre menant à une disparité dans les besoins de socialisation qui règnent en milieu universitaire. Enfin, des suggestions sont offertes pour l’exploration d’actions sociales étudiantes, en complémentarité à l’encadrement institutionnel, afin d’optimiser la socialisation des doctorantes, et par le fait même, leur professionnalisation au monde de la recherche.

Game based-learning have been widely promoted to overcome the difficulties encountered by beginners to learn programming. However, there are many issues to address for the implementation of game-based learning. Indeed, game-based learning is not limited to adding game elements such as rewards to a learning situation, but it rather consists of transforming the learning situation so that it becomes playful. This work contributes to computer science education research, especially to game design for learning programming. We design a novel environment dedicated to learning object-oriented programming for beginners called Progo. It is based on a metaphor of a three-dimensional (3D) construction and animation game. We present an a priori analysis of the Progo environment on the basis of a didactic transposition framework. The framework highlights the ludicisation and metaphorisation process by which educational content is integrated into the game. This allows for the analysis of the transformation of the computing knowledge by the game design, and to verify whether analogies are maintained between the knowledge and what the learner should experience through play. This work contributes to a framework for the integration of educational content during learning game design.

La direction de recherche doctorale exige de la part des professeurs d’université un fort engagement envers l’étudiant et le recours à des connaissances théoriques et méthodologiques élevées, de même que des compétences à l’encadrement et à l’accompagnement. Lorsque le directeur de recherche possède peu d’expérience dans l’exercice des fonctions liées à la recherche et à l’enseignement, comme c’est le cas des nouveaux professeurs d’université, le défi est de taille et les conséquences peuvent être importantes. Cet article porte sur le type d’accompagnement que 16 nouveaux professeurs d’universités canadiennes ont reçu alors qu’ils étaient étudiants et sur celui qu’ils préconisent auprès des étudiants dont ils dirigent actuellement les travaux.


Making sensitive pedagogic relationships in the nursery is a deeply human activity evoking joy and satisfaction, but stress and uncertainty too. From an international perspective, strong local reflective spaces are required if early childhood provision is to be culturally and context responsive, counter-balancing globalising pressure to standardise provision. Further, nursery practitioners are entitled to a formal space where their subjective experience of the work, its demands and dilemma, can be expressed and understood. This paper is about ‘Work Discussion’ (WD) as such a reflective space. Professional reflection is now included in early years policy frameworks internationally for the reasons above. WD, distinctive in including explicit attention to emotion in pedagogy, is one model of a reflective space. This paper arises from a longitudinal evaluation of WD in nursery funded by the Froebel Trust. The methodology of the evaluation and the positive findings of impact for children have already been published. The aim of this paper is to theorise WD, drawing on the work of Wilfried Bion, a psychoanalyst and theorist of thinking in groups. Empirical data if offered to illustrate the explanatory power of Bion’s theory including what may be discussed openly and what is avoided in pedagogic reflection.


Today’s media generally depicts negative or biased images of multicultural or ethnic groups based on certain symbols and semantics. Given these characteristics, it is important to provide an educational experience in which adolescents critically reflect on how the media presents distorted images of ethnic groups, especially migrants. Thus, the present study used a media criticism-based approach for designing critical multicultural instruction in social studies curricula. In the sample lesson plans, the cultivation of critical multicultural citizenship is presented as one of the instructional goals, after which the problems and issues regarding how the media depicts ethnic groups are
discussed. Next, exploratory activities are conducted wherein the students analyse, interpret and critically evaluate various media texts. It is hoped that this study can be used as a reference for schools aiming to foster students’ ability to critically analyse media texts, especially those that present ethnic groups in a negative light.


The impact of colonisation, cognitive imperialism, and Eurocentric modes of knowing, being and doing has had an effect on Higher Education, including teacher education. Colonial epistemologies, epistemicide, academic dependency, disempowerment and intellectual inferiority are challenged by liberatory pedagogies that present opportunities to reconceptualise ontological and epistemic foundations to inform antiracist practice and decolonial praxis. However, prevailing teacher education policies of standardisation in England raise difficult obstacles against decolonial and anti-racist practices. By acknowledging the existence of institutionalised forms of coloniality, which includes the reproduction of colonial-modernist-western modes of thinking and doing, a re-imagined decolonial reality can be envisioned. We argue that this process can engender humanising, antiracist, and epistemically liberating pedagogies within teacher education, which can encourage the co-existence of a diverse plurality of forms of knowing, being and doing. Through conversational semi-structured interviews with nine teacher educators, enriched by a critical analytic ethnographic study, the findings suggest perceptible evidence of teacher educators’ growing curiosity and commitment to exposing ITE’s complicity in the reproduction and sustenance of the logics of coloniality of knowledge and relational inequities.


The increasing development in smart and mobile technologies transforms a learning environment into a smart learning environment that can support diverse learning styles and skills development. An online learner needs to be supported for an engaging and active learning experience. Previously, this progressive research developed and implemented a self-regulated smart learning environment (mobile app) among final-year undergraduate students to support online learning experiences. To understand students’ experiences, there is a need to evaluate the mobile app. However, there is a lack of a well-documented study investigating students’ experiences in terms of usability, challenges, and factors influencing satisfaction to inform a decision regarding future implementation. This study attempts to fill these gaps by exploring these experiences for sustainable future implementation. The study used cyclical mixed-method evaluations to explore the experiences of 85 final-year undergraduate students. The quantitative data were collected using a survey on the constructs of the research model previously developed to evaluate factors influencing students’ satisfaction, and the qualitative used focus group discussions to explore usability experiences and challenges of implementations. The quantitative data were analyzed using SPSS 25 to confirm the structural equation model’s relationship. The qualitative data were analyzed using a thematic process to understand students’ experiences. The findings from the first mixed-method evaluation show that students were able to follow the learning process, and the
application supported their online learning experiences. However, a student expressed the need to improve user functionalities to motivate and engage them in the learning process. The suggestions were incorporated into the mobile app development for the second evaluation. The findings from the second evaluation revealed similar support. However, students suggested a web-based version to support different operating systems and improve interactions. Furthermore, the information system qualities and moderating factors investigated supported students' satisfaction. Future research could explore facilitators’ experiences in the mobile app for sustainable development and implementation for engaging online learning experiences and skills development.


Dans un contexte de professionnalisation de la formation doctorale, l’encadrement doctoral renvoie à un décloisonnement du binôme doctorant - directeur de thèse. Mais si l’encadrement collégial est devenu une norme à l’international, et une pratique courante en France, la littérature reste centrée sur les relations duales entre doctorant et directeur de thèse. L’objectif de cet article est de décrire la diversité des configurations organisationnelles des équipes d’encadrement doctoral. A partir d’un dispositif de formation à INRAE, nous avons constitué une base de données sur 76 thèses, avec les caractéristiques structurelles de la thèse et de son encadrement, mais aussi les difficultés exprimées par les doctorants et encadrants. L’analyse de ces données nous permet de dégager quatre types d’équipes d’encadrement doctoral, au-delà des rares binômes entre un doctorant et son directeur de thèse. Les formes organisationnelles ainsi identifiées, parfois classiques (binômes d’encadrants HdR / non HdR), d’autres plus complexes constituant des équipes pluridisciplinaires et/ou pluri-institutions autour du doctorant, voire élargies à des acteurs du monde socio-économique, sont décrites et confrontées aux difficultés rencontrées par les protagonistes de ces thèses. L’analyse transversale de ces résultats nous permet de dégager à la fois des pistes en termes de formation des doctorants et encadrants, des points de vigilance pour les institutions qui financent et hébergent ces thèses, mais aussi des perspectives de recherche dans le champ de l’accompagnement doctoral.


This article draws on the experiences of teachers and teacher educators within the “Bristol Decolonising Network”, an informal professional learning network based in South West England, to share examples of teacher-led decolonising/antiracist initiatives. The
seven vignettes presented cover a range of subject areas across the English Secondary school curriculum, with varying rationales, foci, forms and intended outcomes. For this Special Issue, we look across these cases to consider links between teacher-led decolonising and antiracist initiatives and professional learning. We suggest that professional learning is both a condition for, and outcome of, teachers’ engagement in such work; and that extending collaboration beyond hierarchical and institutional boundaries is a key enabler for progress on this agenda.


L’intention de cet ouvrage est de recentrer la réflexion et les pratiques de la pédagogie Freinet contemporaine sur ses principes fondamentaux. Il s’agit aussi de poser de façon spécifique un problème général redoutable, celui du devenir des institutions. En l’occurrence, une institution éducative, coopérative et égalitaire, celle de l’Ecole moderne. Les principes fondamentaux, tels qu’ils ont été construits par les pionniers et énoncés par Freinet lui-même, sont ceux de coopération, de Méthode naturelle et de tâtonnement expérimental, corréls au matérialisme pédagogique des dites « techniques Freinet ». Cette construction générale, encore très vivante aujourd’hui, s’est faite de manière empirique, à même la réalité des classes, et de façon coopérative - à l’échelle de centaines de contributrices et de contributeurs, dans un espace international, et sur une durée d’un siècle. Elle s’affirme comme « révolution pédagogique », et s’inscrit dans un projet plus large de politique d’émancipation. Un siècle d’existence et de transformations, cela implique plusieurs générations, et par conséquent le problème de la formation. Un problème qui est en même temps celui du devenir de l’institution : comment poursuivre son oeuvre originale dans un monde en pleine mutation ? Comment éviter le double écueil du dogmatisme doctrinaire et du syncrétisme consensuel ? Pour le dire autrement, de l’esprit de chapelle et du n’importe quoi ? Comment instaurer une fidélité sans exclusion ? En quoi consiste en propre cet effort pour sortir de la scolastique et inventer son alternative : une école émancipatrice pour tous les enfants, et cohérente avec la perspective d’une société égalitaire ? Comment définir aujourd’hui une institution éducative populaire, affirmant la capacité de n’importe qui sans céder au n’importe quoi ? En somme, en quoi consiste ce commun, capable à la fois d’unifier (autour de son affirmation pratique égalitaire) et de cliver (contre la persistance des modèles inégalitaires) ? En quoi consiste ce commun capable de produire à la fois l’enthousiasme d’un affect joyeux et la détermination d’une lutte incertaine ?


The design of the flipped classroom (FC) as a pedagogical approach is becoming increasingly prevalent in mathematics education. However, although many studies have been conducted on whether FCs are more effective in improving mathematics achievement compared to traditional lectures, the results are not consistent. To address this issue, this meta-analysis examined the overall effect of flipped mathematics classrooms on student achievement, in addition to a set of moderating variables. Our analysis included thirty-seven experimental studies with forty effect sizes, comparing flipped and traditional classrooms in K-12 and tertiary mathematics education. The meta-
analysis revealed an overall statistically significant FC effect of $g = 0.402$, indicating a marginally moderate effect size. The effect sizes were also significantly moderated by education level and mathematics content area. No evidence of publication bias was found in the data set. We concluded by discussing employment of the FC model in the contexts of mathematics education and offering suggestions for future research.


Could co-teaching be a mechanism to support the adoption of evidence-based teaching strategies? Co-teaching has been proposed as a lever for fostering pedagogical change and has key attributes of a successful change strategy, but does research indicate co-teaching effectively shifts instructional practices? Based on our review of the emerging evidence, we wrote this essay for multiple audiences, including science, technology, engineering, and mathematics (STEM) instructors, education development professionals, leaders who oversee teaching, and researchers. We define co-teaching in the context of STEM higher education and summarize what is known about the pedagogical changes that co-teaching could support and the potential mechanisms behind these changes. We share recommendations based on the available evidence for those who need productive ideas right now. We also lay out a variety of future directions for research about co-teaching as a lever for pedagogical change. Achieving widespread and impactful pedagogical change is a monumental undertaking facing STEM higher education, and multiple approaches will be needed to meet this challenge. Co-teaching has potential to shift ways of thinking and pedagogical practices among undergraduate STEM faculty, but how co-teaching is enacted is likely crucial to its impact, as is the context in which it occurs.


Ours is a world of constant movement and forced displacement of millions of people. Preparing teachers to navigate this world calls for renewed pedagogical practices centered on values and critical global competence. This multi-case study investigates how teacher education faculty across Spain, USA, and Italy collaborated with their students to advance didactic innovations that engage reflexive, socio-emotional, and intercultural processes using thinking routines and storytelling about migration. Our research gives voice to students and faculty and makes emotions and cognitive understandings visible within dialogical practices. Implications for faculty facilitating professional development emphasize learning networks and reflexive scholarship and teaching.


Teacher preparation programs are vital to facilitating the development of teacher candidates who have the knowledge, skills, and dispositions that align with a social justice approach to teaching. However, enacting teacher preparation for social justice will necessitate teacher educators with sophisticated expertise. To gain insight into this
enactment, we engaged in a qualitative metasynthesis of teacher educator self-studies about teacher preparation for social justice. Teacher educator self-studies serve as a context for teacher educators to study and problematize their practice while also contributing to the larger teacher education literature base. The qualitative metasynthesis examined 65 teacher educator self-studies from 1992 to 2021 across journal articles, books, and conference proceedings. The analysis and synthesis of the teacher educator self-studies resulted in naming three components necessary for facilitating teacher candidate social justice learning within the context of teacher preparation: 1) Centralizing the Lens of Identity, 2) Classroom Environment Conducive to Social Justice Learning, and 3) Pedagogical Practices to Promote Critical Consciousness and Praxis. Within each of these components are high-leverage practices and routines of practice that can be utilized to enact that component. Taken together, the findings result in a framework for a pedagogy of teacher education for social justice rather than focusing solely on what teacher candidates need to know and be able to do. The findings have implications for teacher educator professional learning, program design, and future approaches to research.


The application of augmented reality games (ARG) as an emerging innovative technology has become a significant component of instructional learning contexts in recent years. ARG-based education as a form of student-centered learning situates students in a learning environment that integrates virtual elements with physical environments through three-dimensional pictures and videos on mobile devices for educational purposes. To connect the use of digital tools into the language classrooms and allow learners to view the real world, this study examined the viability of ARG-enhanced education on English foreign language (EFL) learners’ learning of giving and asking for directions in flipped and blended contexts. The study involved 60 EFL elementary students of homogenous English proficiency, organized into two comparative and one control group, with 20 participants in each group. For the pre-test, an 18-item multiple-choice test with one written and oral question was administered to assess the learners’ knowledge of asking for and giving directions. After taking the pre-test, the two comparative groups received 16 sessions of ARG-enhanced education (one with a blended and the other with a flipped classroom approach), while the control group received placebo instructions. The flipped group received the instructional materials preceding the online group, while the blended group received instruction in both online and face-to-face classes. The control group received instruction in a face-to-face context. After 8-weeks of treatment sessions, all participants of the study took the post-test. According to the results, both flipped and blended groups receiving ARG-enhanced education performed better than the control group in learning how to give and ask for directions. The results of this study may pave the way for EFL teachers and students to use ARG-based technology in online and traditional classes.

Nowadays, hardly anyone working in the field of foreign language teaching and learning can imagine life without machine translation (MT) tools. Thanks to the rapid development of artificial intelligence, MT now most widely assumes a new form, the so-called Neural Machine Translation (NMT), which offers the potential for a wide application in foreign language learning (FLL). Therefore, the purpose of this review study is to explore different approaches to the efficient implementation of NMT into FLL and provide specific pedagogical implications for best practices. The PRISMA methodology for systematic reviews and meta-analyses was strictly followed. The search was conducted in two well-established databases, specifically Scopus and Web of Science, to generate sufficient data from research articles for further analysis. The findings of this systematic review indicate that NMT is an efficient tool for developing both productive (speaking and writing) and receptive (reading and listening) language skills, including mediation skills, which are relevant for translation. Moreover, the results show that NMT tools are especially suitable for advanced learners of L2, whose higher proficiency level enables them to critically reflect on the output of NMT texts more than beginners or lower-intermediate learners. Thus, the findings of this review study reveal that NMT has valuable implications for L2 pedagogy since it can serve as a very powerful online reference tool for FLL provided that teachers introduce students to its benefits but also limitations by implementing various teaching approaches.


Using a comparative case study, this paper explores the pedagogic practices for regulating behaviour in two Norwegian primary school classrooms with social compositions that become increasingly contrasted due to an increasing school segregation. Based on classroom observations and teacher interviews and using Bernstein’s concepts of ‘framing’ and ‘classification’, the study has found that working-class students are subjected to a more visible pedagogic practice than middle-class students. The different behavioural expectations in the classrooms shape a passive and receptive learner identity in the former case and a more active learner identity in the latter case. Social class assumptions and neoliberal education policy may underlie the formation of these distinct identities. This paper argues that in an education system that advocates equal opportunities for everyone as the most important value, it is crucial to consider whether visible pedagogic practices promoted through evidence-based programmes rather contribute to reproduction of existing social inequality.


Capacity building is a corner stone for having well prepared and effective teaching staff in engineering education. Despite the importance of capacity building in engineering education, there is relatively little research on this topic. In this paper, we address this gap by reporting on an international comparative study on capacity building practices in...
university-level engineering education. We examine how capacity building is organised in seven European institutions (in Belgium, Finland, France, Germany, Hungary, Sweden, UK) and Australia, based on institutional education policies and practices. We compare the preparation of teaching staff, their initial training, and continuing capacity building activities throughout their careers. To do this, we applied a qualitative approach, collecting data through (1) a structured questionnaire answered by the members of the SEFI SIG on Capacity building and (2) written notes produced during an international workshop on capacity building at the 2021 SEFI conference. We then conducted a comparative case study, exploring similarities and differences between incentives for permanent academic staff to engage in capacity building, how capacity building is organised, and at what point in their careers staff engage in it. Our findings indicate very diverse approaches, rules and practices as well as different obstacles and challenges for engineering education. The outcomes of our study can be used by policy makers to inform capacity building practices and engineering education in HEIs (Higher Education Institutions), and our questionnaire provides a tool for monitoring and reporting practices throughout the sector.


In the past two decades, we have seen a renewed interest in decolonisation. A proliferation of literature produced on the topic, the establishment of journals on decolonisation, student protests such as the #RhodesMustFall campaign at universities in South Africa and Oxford University in Britain, French President Emmanuel Macron’s call for the repatriation of African heritage from European museums, the appointment of a Deputy Minister of Decolonisation in Bolivia, bear testimony to a heightened consciousness on the topic. Moreover, we are witnessing the internationalisation of Indigenous knowledge as colonised peoples across the globe use the spaces that globalisation affords to build solidarities in order to resist the homogenising and normalising effects of globalisation and to decentre western epistemologies. In this article, which contributes to the Special Issue on Decolonial and Anti-racist Perceptions in Teacher Training and Education Curricula, I do three things: discuss the concept of decolonisation including its meanings produced in different geographies, discuss the connection between decolonisation and anti-racism, present challenges and opportunities for decolonising (teacher) education programmes through the concepts of currere, complicated conversation and land education. I conclude that decolonisation is not an easy task in the neoliberal university and other institutions offering initial teacher training/education. However, there always exists opportunities for invigorating decolonial desires in such teaching/learning spaces.


Teacher preparation coursework globally includes courses designed to develop intercultural competence in preservice teachers (PTs). This Self-Study of Teaching and Teacher Education Practices (S-STTEP) applied critical pedagogy to analyze power embedded in the feedback provided to 27 (26 female, 1 male) PTs from an online learning platform at US university. The instructor’s feedback was the main source of data. Findings were framed within Bizzell’s (1991) framework of power positioned as coercive, authority, or persuasive and Giroux’s spectrum of power. The eight categories of
feedback (asserting, affirming, challenging, evaluating, advising, personalizing, extending, and eliciting) were then ranked in levels of power.


Prior research has shown the importance of collaborative culture as well as teacher job satisfaction and commitment in navigating complex school improvement processes. This study investigated the relationship between collaborative culture, affective commitment, and job satisfaction of teachers taking both collaborative cultures in the entire school, as well as in informal subgroups, into account. Survey data of 760 teachers, nested in 136 subgroups and 13 secondary schools, were analyzed using multilevel path analyses. Results show that collaborative culture in the informal subgroup is positively related to teachers’ affective commitment and job satisfaction and that affective commitment is a mediator. The collaborative culture at the school level was not a significant predictor. School leaders need to be aware that there are, to some extent, subgroups within the school which develop their own collaborative culture through social contagion processes which impact job satisfaction and affective commitment to a greater extent than the school-level culture.


This paper introduces researchers and scholars to psychosocial qualitative methods when researching affective aspects of classroom pedagogy. It theorises affect as felt processes that defy representation circulating in teaching and learning. Turning to the psychoanalytic field of infant observation, the author outlines the immense potential of deeply qualifying the relational dynamics of pedagogy for the field of education. The paper offers a case of a child’s literacy to generate insight into the critical importance of documenting pedagogical interactions when teaching young children. The author finds that in-depth qualification of and on pedagogical encounter can instantiate a new course in pedagogical research, one that takes seriously what is unknown about learning taking place inside and between learners and teachers. Studying pedagogical encounters contributes new knowledge of the significance of the teaching relation in supporting children and students to learn.


This article explores the conceptions of ten Cameroonian teachers on the place of knowledge levels both in the chemistry curriculum in Cameroon and in their practices. We use the theoretical framework of levels of knowledge for the identification of conceptions. The methodological approach is based on a questionnaire addressed to high school chemistry teachers. We show that the levels of knowledge are partially controlled by the teachers, and that not all of them are aware of their importance in learning chemistry.
Teaching can be considered as an extremely demanding and stressful occupation and being a language educator brings about its own distinctive challenges. In the wake of COVID-19 pandemic, teachers worldwide experienced fundamental changes in their profession and their lives as a whole. Coping with such an unprecedented situation and responses to it have created new and extra stressful factors for teachers to cope with, including the difficulties created by quick transition from direct teaching to virtual and remote teaching. This study examined EFL teachers’ coping strategies during the Covid-19 virtual education and their association with work engagement and teacher apprehension. A total of 296 language instructors contributed to this study by participating in a survey in January 2021. To determine what coping strategies teachers use in virtual teaching during Covid-19, the researchers adapted the Brief-COPE scale designed and validated by Carver (Int J Behav Med 4:92–100, 1997) to make it appropriate for virtual education. The survey measured 11 coping strategies divided into two broad types, approach and avoidant. For measuring work engagement, the Work and Well-being Survey (UWES) scale designed and validated by Schaufeli and Bakker (Test manual for the Utrecht work engagement scale, vol 3. Utrecht University, The Netherlands, pp. 44–52, 2003. http://www.schaufeli.com) was utilized. To assess teachers’ apprehension, the research employed the Sources of Teachers’ Apprehension Scale (STAS) developed by Ghanizadeh et al. (Asia-Pac Educ Res 1–14, 2020). The result demonstrated that the adapted coping strategies scale enjoys acceptable reliability and validity indices. The results estimated via structural equation modeling (SEM) revealed that EFL teachers’ approach coping strategies positively and significantly predicted work engagement ($\beta = 0.72, t = 10.56$). Work engagement was negatively predicted by avoidant coping strategies ($\beta = -0.29, t = -3.36$). Teacher apprehension was negatively influenced by approach coping strategies ($\beta = -0.44, t = -5.57$) and positively by avoidant coping strategies ($\beta = 0.43, t = 5.29$). The study proposes some practical recommendations for overcoming the Covid-19 related challenges which could further deliver valuable guidance for supporting future training of teachers.


Understanding how general and special education teachers perceive autonomy has been linked to job satisfaction and increased student outcomes. The current research investigated the interaction between teacher autonomy and teacher type on teacher job satisfaction using a nationally representative dataset. The study included approximately 22,850 teachers from 4,620 public schools, representing a weighted sample of 2.38 million teachers. Results from multilevel modeling found that special education teachers may be less sensitive to changes in classroom autonomy compared to general educators. Implications for research and practice are provided.

Our understanding of how active learning affects different groups of students is still developing. One group often overlooked in higher education research is students with disabilities. Two of the most commonly occurring disabilities on college campuses are attention-deficit/hyperactivity disorder (ADHD) and specific learning disorders (SLD). We investigated how the incorporation of active-learning practices influences the learning and self-advocacy experiences of students with ADHD and/or SLD (ADHD/SLD) in undergraduate science, technology, engineering, and mathematics (STEM) courses. Semistructured interviews were conducted with 25 STEM majors with ADHD/SLD registered with a campus disability resource center at a single university, and data were analyzed using qualitative methods. Participants described how they perceived active learning in their STEM courses to support or hinder their learning and how active learning affected their self-advocacy. Many of the active-learning barriers could be attributed to issues related to fidelity of implementation of a particular active-learning strategy and limited awareness of universal design for learning. Active learning was also reported to influence self-advocacy for some participants, and examples of self-advocacy in active-learning STEM courses were identified. Defining the supports and barriers perceived by students with ADHD/SLD is a crucial first step in developing more-inclusive active-learning STEM courses. Suggestions for research and teaching are provided.


Les compétences en médecine d’urgence (MU) devraient pouvoir être évaluées chez les étudiants en médecine et les internes avec des outils valides. L’objectif était de développer des outils d’évaluation par la simulation, dans trois situations cliniques. Une recherche en trois phases a été menée: développement du contenu, évaluation du processus de réponse et des propriétés psychométriques, puis évaluation de leur utilisabilité et de leur acceptabilité auprès des enseignants. Trois scores ont été obtenus après consultation de 51 experts. Après analyse de 43 vidéos et de 104 simulations in-situ, impliquant 144 et 314 apprenants, la fiabilité des scores était bonne avec une reproductibilité excellente et une bonne cohérence. Les enseignants estimaient que les scores ACAT étaient utilisables, mais ont discuté les changements induits avec l’évaluation par la simulation. Trois scores d’évaluation valides et fiables ont pu être développés pour mesurer la performance des apprenants en MU. L’acceptabilité de l’évaluation par la simulation est questionnée et devrait être analysée dans l’optique de son déploiement pour des évaluations à enjeu élevé.


L’analyse de l’activité est une modalité en pleine expansion dans le domaine de l’éducation et de la formation. Loin d’être homogène, celle-ci constitue une mosaïque de perspectives plus ou moins compatibles, complémentaires ou alternatives, mais qui témoignent de la vitalité de cet espace de recherche.


Dans un système scolaire construit sur la leçon, la concentration et l’écoute, l’exercice et le travail répétitif, vouloir introduire l’humour peut paraitre provocateur. Pourtant, on peut lui accorder une place dans les apprentissages. Encore faut-il s’entendre sur ce qu’est l’humour et savoir faire avec la dimension fortement culturelle (et interculturelle) de l’humour, y compris dans ses aspects générationnels. Comment apprendre l’humour et avec lui, et quels sont ses effets ?


This study explores beginning teacher candidates’ approaches to grading in relation to their broader conceptions of assessment through a survey research design. 248 Canadian teacher candidates responded to two scales: Teachers’ Approaches to Grading (TAG) and Teachers’ Conceptions of Assessment (TCOA). The results of factor analysis showed that teacher candidates approached grading in relation to four factors: (a) grade consequence, (b) holistic view of assessment, (c) holistic view of learners, and (d) classroom context. Their broad conceptions of assessment are related to three factors: (a) assessment as improvement and accountability, (b) assessment as irrelevant, and (c) assessment as inaccurate. The results of factor structures and intercorrelations within and across the TAG and TCOA scales showed that these beginning teacher candidates approached grading with variable complexity and attention to holistic view of assessment and of learners with an aim to support student learning.


Student feedback is crucial for evaluating the performance of teachers and the quality of teaching. Free-form text comments obtained from open-ended questions are seldom analyzed comprehensively since it is difficult to interpret and score compared to standardized rating scales. To solve this problem, the present study employed aspect-
level sentiment analysis using deep learning and dictionary-based approaches to automatically calculate the emotion orientation of text-based feedback. The results showed that the model using the topic dictionary as input and the attention mechanism had the strongest prediction effect in student review sentiment classification, with a precision rate of 80%, a recall rate of 79% and an F1 value of 79%. The findings identified issues that were not otherwise apparent from analyses of purely quantitative data, providing a deeper and more constructive understanding of curriculum and teaching performance.


This mixed methods study explored German (n = 477) and Finnish (n = 379) student teachers’ color-blind, multiculturalist, and polyculturalist diversity beliefs. Statistical analyses identified polyculturalism and multiculturalism as the most prominent diversity beliefs among the student teachers and detected associations between diversity belief profiles and student teachers' orientations to teaching for diversity and social justice. Polyculturalism, in particular, emerged as significant predictor of student teachers’ orientations to teaching for diversity and social justice. Qualitative analysis of responses to open-ended questions revealed that polyculturalism was internalized by the student teachers superficially. The implications of the findings for further research and teacher education are discussed.


présents in situ. Ces composantes caractériseraient le fait évaluatif. Ensuite, les données recueillies ont permis, après analyse, d’élaborer la thèse selon laquelle : actions, perceptions et intentions se configurent phénoménologiquement chez le sujet qui pilote l’évaluation selon au moins deux dynamiques attentionnelles, présentées sous la forme de deux hypothèses phénoménologiques. La première consiste à poser que le sujet évaluateur habite (Heidegger, 1958) le fait évaluatif dans le sens de sa mise en chair et de son expérientialité dans un espace réel et symbolique propre. La seconde réside dans l’idée que ce sont les valeurs du sujet (Scheler, 1955) qui évalue qui façonnent le fait évaluatif dans son vécu. Cette recherche conduit in fine à poursuivre le projet d’une phénoménologie de l’évaluation dans le sillage des travaux de Hadji (2021), constituée d’un espace de dia-logos : un lieu et un temps où expériences, savoirs et échanges se tissent ensemble pour une visée humaniste (Idem.), à l’heure où une technologie de l’évaluation règne largement. Dans cette recherche, la micro-phénoménologie est autant une voie d’accès à l’expérience vécue en première personne, qu’une méthode d’analyse et une posture scientifique qui permet d’appréhender l’acte évaluatif en chair et en os non sans lien à l’ouverture empathique (Janner-Raimondi, 2017) grâce aux relations dialogiques établies. Elle permet ainsi d’accéder à des données sensibles peu abordées ou considérées jusque-là, en raison de la dominante technique de l’évaluation qui règne actuellement.


Previous research has demonstrated the potential of practitioner inquiry for developing an inquiry stance among teacher candidates. Little is known, however, about how teacher candidates’ ways of engaging with inquiry communities relate to inquiry stance development. This study investigated how teacher candidates engaged with community in a clinically based teacher education program in the United States. A thematic analysis of 30 semi-structured interviews (five with each of six participants) revealed eight approaches to collaboration and structure reflecting four community orientations. The findings suggest that more deeply understanding teacher candidates’ engagement with community could assist teacher educators in promoting inquiry stance.


Teachers’ emotional competence predicts teachers’ mental health and the teacher-student relationship. Therefore, training pre-service teachers’ emotional competence seems important. In the present study, we evaluated a training of emotional competence comprising elements of emotion knowledge, emotion awareness, and emotion regulation training. We report on data of 186 participants and compared 71 trained subjects to two comparison groups. We found some effects of the training on both self-estimated and objectively measured emotion regulation ability. These effects remained stable over time. Furthermore, we found that the in-situation emotion insecurity decreased only in the training group. Future implications of these results are discussed.

An important way to address the literacy needs of English Learners (ELs) is to ensure that ELs receive evidence-based literacy instruction and intervention. To support teachers’ implementation of this instruction and intervention, it is necessary to provide effective professional development (PD). In this systematic review, we synthesized 19 studies that investigated PD on literacy instruction and intervention for ELs. Findings revealed that although PD often targets teachers’ implementation of literacy instruction, PD is less likely to focus on teachers’ implementation of literacy interventions for ELs experiencing reading difficulties. Nonetheless, PD programs typically resulted in positive changes in teachers’ knowledge and practices. However, only 12 of the studies reported on student outcomes. We conclude with research and practical implications related to PD for teachers of ELs that is responsive to the needs of ELs.


The assessment of instructional quality has been and continues to be a desirable, yet difficult endeavor in higher education. The development of new teaching evaluation frameworks along with instruments to measure various aspects of teaching practices holds promise. The challenge rests in the implementation of these frameworks and measures in authentic settings. Part of this challenge is for instructors, researchers, and administrators to parse through and select a meaningful set of tools from the plethora of existing instruments. In this study, we aim to start clarifying the landscape of measures of instructional practice by exploring the complementarity of two existing instruments: the Classroom Observation Protocol for Undergraduate STEM (COPUS) and the Learner-Centered Teaching Rubrics (LCTR). We collected classroom observations and course artifacts from 28 science instructors from research-intensive institutions across the United States. Results show the need to use both instruments to capture nuanced and comprehensive description of a faculty member’s instructional practice. This study highlights the messiness of measuring instructional quality and the need to explore the implementation of teaching evaluation frameworks and measures of instructional practices in authentic settings.


Undergraduate and graduate teaching assistants (TAs) play large roles in introductory undergraduate education despite having little to no teaching experience or professional development (PD). Self-efficacy and teaching approach have each been studied as independent variables that impact teaching performance and student learning in the absence of practiced skill or developed knowledge. This study explored relationships between TAs’ teaching approaches and teaching self-efficacy. Self-efficacy was measured using the Graduate Teaching Self-Efficacy Scale (GTA-TSES), and teaching approach was measured using the Approaches to Teaching Inventory (ATI). The following research questions guided the study: What is the relationship between TAs’ approaches to teaching and their self-efficacy? How do approaches to teaching and self-efficacy interact to impact the model of TA self-efficacy? Both ATI subscales
correlated strongly with the GTA-TSES learning environment subscale and weakly with the instructional strategy subscale. High self-efficacy TAs demonstrated more concern with impacting student learning, which may contribute to a more student-centered teaching approach. Results indicate that TAs with more confidence in their teaching ability may have a more student-centered approach than teacher-centered approach to teaching. Implications include enhancing TA PD with peer mentoring, constructive feedback, and reflection and incorporating learning concerns in the model of TA teacher efficacy.


Many institutions have found the strength to name racism and seek space for curriculum and other systemic changes. We argue this is happening against a backdrop of curriculum, regulatory and policy changes in education, and particularly initial teacher education and training (ITE/T), which are de-racialised. We propose that a ‘pocket of possibility’ lies within such divergences, and present research leading to the creation of an anti-racism framework for ITE/T to support action against this emergent landscape. The paper documents each aspect of the research and snapshots of the findings of a global literature review of anti-racism in initial teacher education, which demonstrated the need for an embedded approach to anti-racism, informed by critical understandings of whiteness and racism. We share some of the complexities, obstacles, and effective anti-racism practices revealed in the review. The findings of the review led to the creation and analysis of a survey for ITE/T providers in England, which provided encouraging evidence of useful practice alongside needs of the profession. We conclude with a statement of intent and hope to maximise of the minimum entitlement of the Core Content Framework (CCF) by a purposeful undoing of the perpetual de-racialisation of education.


Online teaching has globally become a part of the learning process and has been more well-established in developed countries. In developing countries, online teaching or e-Learning is not practiced or recognized officially by educational organizations and policymakers. On the other hand, it is well-known that computers and technology are the future; in such a case, the advancement of distance-learning or online learning is immensely remarkable. It has reduced teachers’ and students’ introversion concerning e-learning and technology and has provided a platform for learning new technologies and developing new skills. The recent COVID-19 lockdown impelled governments to start implementing E-learning in schools, which resulted in several challenges. This study attempts to analyze and interpret the challenges and potentials of implementing online learning by surveying through an online questionnaire using ‘Google Forms’ (N = 968) with responses from high school and primary school English teachers during the first week of March through the last week of April. The findings revealed that most teachers had negative perceptions of implementing e-learning for several reasons, including lack of essential facilities such as electricity, electronic devices, and the absence of required skills. The actual contributions of students and educators are also among the major obstacles. This research suggests introducing Information Communication Technology
modules across media platforms and applications in the education departments, opening intensive courses for teachers, and developing educational facilities in the education departments and schools to overcome these limitations and challenges.


Many Senior Leadership Teams (SLTs) are engaging in professional development to nurture explicitly anti-racist practice. Teachers’ knowledge gaps about racism, its traumatic, lasting impact and how racism is generated through schooling persist within a cloak of silence. This small-scale study explores interview data from senior leaders in English schools, questioning legacies of colour-evasion and breaking silences to understand the role ‘race’ plays in their schools, appearing exigent due to Black Lives Matter (BLM) movements and the inescapable reality of racism seen in George Floyd’s horrific murder. Using Critical Race Theory (CRT) and Critical Whiteness Studies (CWS) as theoretical tools, we explore negotiations and challenges of leading anti-racist work in systems favouring whiteness as the norm. Findings show senior leaders undertaking the Anti-Racist School Award (ARSA) and/or Race, Identity and School Leadership (RISL) programme are novice ‘race’ practitioners, despite their seniority, wrestling to recognise whiteness and to connect their own ‘race’(d) identities to role-enactment and policy. They must negotiate and make the case for anti-racist leadership to colleagues trained not to notice, and mitigate wider external systems operationalising whiteness, blocking the development of anti-racist practice. We examine resistances to anti-racist work in English school systems that (re)centre whiteness.


COVID-19 lockdown has caused disruption to education of all levels with far-reaching implications and unveiled the shortfalls of the current education model. Cycles of tightening and relaxation of COVID-19 lockdown confer uncertainty to the continuity of education. This article aims to comprehensively present the impacts of COVID-19 on primary, secondary and tertiary education and propose sound educational practices in the COVID-19 era. Papers related to educational impacts and implications of COVID-19 were selected for this review through a PRISMA model. The review shows that a shift of learning remotely or online has affected educators and learners, especially in relation to learning loss among learners, limitations in instructions, assessment and experiential learning in virtual environment, technology-related constraints, connectivity, learning resources and materials, besides psychosocial well-being. These impacts are exacerbated by inequalities in the distribution of resources as well as inequities attributed to socioeconomic status, gender, ethnicity, learning ability and physical conditions. The recommendations for future educational practices comprise adaptability of curricula to embed independent and online learning options, concurrence of diverse learning modalities for seamless learning transitions and flexibility, flexible staffing and learning model, enhanced support, technological and curricular innovation with simplification and standardization, as well as interactive, responsive and authentic virtual environment. This review contributes significantly to enhance preparedness of education to crisis while ensuring continuity and quality of education in the era of COVID-19 uncertainty.
Tellier, M. (2022). *Saisir les potentialités pédagogiques de son corps. De l'enseignant novice à l'enseignant expérimenté*. 123. Consulté à l'adresse https://hal.science/hal-03779016

Le corps des enseignantes et des enseignants participe à l’action pédagogique comme la recherche en éducation a pu le montrer dès les années 1970 (de Landsheere & Delchambre, 1979; Grant, 1977; Pujade-Renaud, 1983). Outre l’intérêt de la gestuelle pour l’agir professoral de l’enseignante et de l’enseignant (Cicurel, 2011), plusieurs travaux ont également mis au jour l’intérêt de la gestuelle pédagogique pour l’apprentissage des mathématiques, par exemple (Hynes-Berry et al., 2018) ou encore pour la compréhension (Sime, 2006; Sueyoshi & Hardison, 2005; Tellier, 2008a) et la mémorisation en langue étrangère (Macedonia & Klimesch, 2014; Tellier, 2008b). Les enseignantes et les enseignants ont donc tout intérêt à explorer ce précieux outil pédagogique qu’est leur corps tant pour capter l’attention des élèves que pour poursuivre leur multi-agenda (Bucheton & Soulé, 2009) et renforcer les apprentissages. Mais cela est-il si simple ? Les novices qui entrent dans leur salle de classe pour la première fois, bien préparés à gérer les élèves et avec une séance bien planifiée, peuvent néanmoins vivre un véritable choc face au constat qu’ils ne savent que faire de leur corps dans cette classe, comme l’évoque Cusset (2013). Que se passe-t-il alors dans ce corps impréparé à jouer son rôle ? Et comment apprend-on progressivement à lui donner une place dans classe, en somme, à le scénariser ? Telles sont les questions auxquelles ce chapitre tentera de répondre en s’appuyant à la fois sur des corpus audiovisuels mettant en scène des enseignantes et des enseignants novices, des observations faites dans de précédentes études ainsi qu’un ensemble de corpus présentant un enseignant à deux moments de sa carrière (lors de sa formation initiale et après 8 ans d’expérience). Nous nous focaliserons sur le contexte de l’enseignement des langues vivantes, mais notre propos sera transférable à l’enseignement d’autres disciplines.


This paper focuses on the making of teachers as educational subjects within a specific socio-historical context. It attempts to create a critical ontology of teacher identity, as highlighted by pedagogical discourses during the initial stages of the Coronavirus Pandemic in Hawai‘i and the subsequent school shut down during the 2020 Spring semester. Through autoethnographic practitioner inquiry, I analyse the relationship between education and the state, the historical and contemporary discourses at play, and the tensions of teacher agency in (re)shaping teacher identities. The paper analyses educational continuities and discontinuities in Pandemic discourses, specific to my context but resonant with national trends within the United States. These include the affective governance of responsibilisation, the amplification of inequalities, the shifting perception of the teaching profession, the proliferation of divergent pedagogical discourses and technologies, and increased teacher agency in (re)making their own identities, roles, and responsibilities within the ambiguity of the socio-historical context.

Institutions are increasingly redesigning academic learning spaces with the aim of enhancing learning outcomes. Existing research into this phenomenon has shown promise regarding how these new spaces are being designed and used; however, there has been much less effort towards developing a language for analysing the emergent learning activity within these spaces. In other words, it has been under-theorised. This paper responds to this gap by proposing three analytical framings and grounding each in vignettes illustrative of how they might be applied: (1) space-time-feedback as an assemblage for emergent interest-driven student activity; (2) embodiment-material as an assemblage for emergent public sensemaking; and (3) proximity-material-time as an assemblage for emergent collaborative benchmarking through group awareness and ambient feedback. Although not an exhaustive list, the three analytical framings serve as a starting point for investigations of emergent activity within future learning spaces from a sociomaterial perspective.


Dans cette contribution, il s’agit d’articuler le questionnement et les matériaux de deux recherches en cours dans le cadre proposé par ce symposium. Ces recherches mobilisent un double croisement: d’une part, une recherche récente sur les «antécédents» et récits d’expérience dans la visée de l’élaboration d’un projet de recherche et son évaluation dans une formation d’adultes en Master ; d’autre part, une recherche au long cours sur les récits d’expérience en VAE de cadres de santé formateurs en vue de l’évaluation sous forme de certification. Dans les deux cas, il s’agit de comprendre comment la mise en récit de son expérience prépare l’épreuve d’évaluation finale. En première analyse, les résultats de notre investigation, à partir de matériaux hétérogènes mais denses, concernent trois domaines en particulier: la formation, particulièrement lorsqu’elle met en jeu l’expérience, s’appuie sur des configurations de savoirs des acteurs concernés et les occasions sans cesse renouvelées de négocier des savoirs que l’agir évaluatif des uns et des autres a bien du mal à maîtriser ou réguler ; l’évaluation, dans la diversité de ses outils et de ses usages, se présente davantage comme un facteur d’incertitude dans la mesure où les référents qu’elle mobilise sont l’objet d’une réinterprétation permanente, voire d’une véritable subjectivation, irréductible dans le cours même de l’expérience, du travail comme de la formation ; le récit d’expérience, sous ses différentes modalités, peut s’avérer un outil probant d’évaluation des compétences à la condition d’être porté par la préoccupation de problématiser les situations vécues et leurs enjeux.


This study explores the subculture of teachers and teaching on TikTok, known in the vernacular as ‘TeachTok’, through a daily walkthrough method, a digital ethnography immersion, and an audio-visual content analysis to understand how teachers participate in the micro-celebrification process. By curating a framework that assesses teachers’ identities on social media, from May to July 2021 we closely monitored the accounts of 12 teachers alongside the general discourse of teaching on the platform to understand how they discussed their 'responsibilities', 'commitment', 'authority', and 'recognition'
among their communities. ‘TeachTok’ was observed to adopt micro-celebrification practices through empathetic, resilient and storytelling dynamics.


In June 2020, the world witnessed an upsurge in Black Lives Matter (BLM) demonstrations following the murder of George Floyd, an African American, by a White American police officer. The international response called for the global community to reassess the value of black lives blighted by racist social systems. The mass sentiment acted as a catalyst for educational institutions, including those in the UK, to mount a response. It is in this context that a School Partnership Group representing primary and secondary schools in East London embarked on developing a workshop series for the professional development of school leaders. The sessions were aimed at school transformation through anti-racist educational approaches. In this article, we present a discussion of the workshop series held in the academic year 2020–2021, which brought school leaders together in a reflective community of practice. Drawing on data from focus group conversations carried out following the end of the series, this paper argues for school leaders' professional development that prioritises ‘deep understanding’ supported by reflective communities of practice as a pre-requisite for effective anti-racist practice and sustained school transformation.


The centralized curriculum shapes teaching quality presumably. This study examines how the centralized curriculum influenced three Chinese beginning teachers’ geometry instruction through pedagogical and content representation lenses. It revealed that the Chinese teachers helped students develop and examine their ideas using questioning and connecting these ideas with their prior knowledge pedagogically. They also engaged students in developing, testing, and modifying geometry proofs using the geometry representation progressions conceptualized in the literature. The centralized curriculum influenced instruction goals, content focuses, and practice problems. However, it did not limit them to developing more ambiguous goals, useful pedagogical sequences, valuable content representations, and challenging practice problems.


This paper examines ways in which approaches to English as Additional Language (EAL) can be decolonised in schools. In an attempt to break traditional divides between academic research and pedagogical practice in this area, this article adopts a collaborative perspective, between an EAL advisory and support teacher and an academic member of staff working in university. Drawing on dialogues and co-analysis with EAL practitioners, this article reflects on limitations of current provision and practice and suggests alternative, decolonial and anti-racist approaches to the education of EAL students. At both school and university level, ‘one size fits all approaches’ tend to negate the deep historical, social and political roots and contexts which underpin the experiences of ‘EAL students’ at different levels of education. Issues related to equitable
assessment, inclusion, linguistic support and anti-racism tend to be side lined in favour of a focus on language proficiency and attainment, which most often overshadows the complex experiences and needs of students labelled ‘EAL’. In this respect, the questions of relevant, decentred and decolonised curricula and forms of assessment that can promote inclusion for students who have experienced migration and are placed in monolingual educational environments in the UK are crucial. Through a decolonial perspective on the curriculum, language and pedagogical practice, inspired by postcolonial studies and Critical Race Theory, this paper discusses three main areas that emerged as crucial to a deeper and critical engagement with English as an Additional Language and the experience of students: (1) the need for a critical reflection on ideas of inclusion and mainstreaming; (2) active anti-racist work in schools and initial teacher training; and (3) decolonising assessment.


This research study explores pupil experiences of co-teaching within a bilingual international primary school in Hong Kong. The majority of pupils are first language Cantonese speakers, studying in an English and Putonghua bilingual programme. Within Hong Kong, the historical context and political situation following the change of sovereignty, has shaped educational policy and views about valued languages, shaping the practices of the school and therefore pupil experiences of language learning. The school supports pupil language development through a bilingual programme (one teacher, one language), supported by co-teaching (in English and Putonghua). The aims of the study were to understand how co-teaching is understood and enacted by co-teachers to support pupil language learning identities. Two co-taught classrooms were the focus of the research (one in Year 3 (Y3) and one in Year 5 (Y5)). Research data for this case study were collected through formal classroom observations over a five-month period, pupil interviews (three from each class) and interviews with the two co-teachers of each class. A broad sample of pupil language experiences was collected as part of a questionnaire to all pupils in Y3 and Y5. Questionnaire data served as an opportunity for data triangulation and rich, detailed analysis. Qualitative data analysis consisted of open coding to find emerging themes, these themes then becoming the focus of the discussion. The findings of the study revealed that enactment of co-teaching is shaped by teacher perceptions of their classroom roles. An identity of a co-teacher, for example, was found to facilitate mutual understanding and respect for shared practices that further supported pupil language development. Co-teaching enactment, perceived teacher language valuations and English language dominance within the classroom were all found to shape pupil language learning identities. The study also found that the co-teaching model, Team Teaching, was effective in teaching and learning because of the opportunities for pupil translanguaging and because it positions the classroom languages with equal status, supporting pupil investment and motivation to learn. Since co-teaching model effectiveness was not the focus of this study, it is recommended as an area of further research.

A deeper understanding of how teachers bridge cultural differences in teacher-student relationships provides insights into the cultural, social and emotional capabilities needed in teachers. This phenomenographic study investigated the experiences and conceptions of Anglophonic Western trained teachers who worked in non-Western institutions with the aim of understanding how teachers working in cross-cultural contexts bridge cultural differences to engage students in learning. Findings show that teacher humility and compassion were antecedents to confidence in students. Further, findings reveal a need for systems administrators and teacher educators to make investments into teachers’ and pre-service teachers’ cultural, social and emotional capabilities for the sake of student confidence and engagement in learning. The study further revealed that student confidence is often evidence of a teacher’s cultural capability.


Nowadays, differentiated instruction (DI) has become a widely discussed topic in many schools and educational institutes. However, whilst the notion of DI is not new, studies on the effectiveness of DI with respect to student outcomes remain relatively unclear. This may be due partly to the operationalization of DI as well as the narrow focus of many studies on academic performance, thus neglecting other pertinent student outcomes. To address this, the current study aims to examine the impact of a specific DI strategy, namely differentiating according to readiness level and student interest, on intrinsic motivation and perceived competence. Two classes of Primary Six (Year 6 equivalent) students participated in the study, of which one class was pre-classified as high readiness, whilst the other class was pre-classified as low readiness. The research design followed a quasi-experimental single group pre–post-test design and took place in English language classes over a period of five lessons. Results indicated that there was an increase in the level of students’ intrinsic motivation and perceived competence in both classes. However, there were no differences in the impact between students with high and low readiness levels. This study demonstrates the effectiveness of a specific DI strategy on intrinsic motivation and perceived competence.


The teaching and learning of Chinese remains a fragile undertaking across all stages of Australian schooling. This paper reports on a practitioner inquiry into pedagogic practices and student engagement with disadvantaged primary school students in a Chinese as a Foreign Language (CFL) classroom in Sydney, Australia. Drawing upon studies of affect as well as the Fair Go Project’s theoretical framework concerning student engagement, the research explores how ‘difficult’ Chinese knowledge and pedagogies of discomfort disrupt social norms and practices. The engagement of students is conceptualised as an interplay of highly affective, highly cognitive and highly operative learning experiences. In this paper, we argue that ‘discomforting’ emotions evoked by curricular and pedagogic approaches can influence significant change and foster curiosity for CFL education. The paper concludes with a consideration of pedagogic implications for foreign language education and possibilities for future research.


Dans quelle mesure l’éducation augmente-t-elle les chances des jeunes d’accéder à l’emploi, d’achever la transition vers le marché du travail et d’obtenir des emplois décents ? En répondant à ces questions, ce rapport tente de tirer des conclusions sur la façon dont l’éducation répond à la demande économique, aux besoins du marché du travail et contribue à atténuer l’inadéquation des compétences. Les auteurs soulignent que l’éducation est généralement associée à des résultats positifs en matière d’emploi, notamment en ce qui concerne les revenus. Cependant, si les jeunes les plus éduqués réussissent mieux que leurs pairs moins éduqués, leurs résultats sur le marché du travail restent assez médiocres en raison du manque d’emplois hautement qualifiés et de possibilités de travail décent.

This study aimed to investigate the contribution of teacher support and parental monitoring to academic performance over three years, testing the mediating role of self-determined motivation and academic self-efficacy and establishing whether the role of teachers and parents varied over time. A total of 419 adolescents—201 males (48%) and 218 females (52%). Mage = 14.34 years (SD = .90)—attending at T1 the ninth grade of
schooling participated in the study. The questionnaires were administered three times over three years in February 2016 (T1), February 2017 (T2), and February 2018 (T3). Specifically, at T1, the students answered questionnaires regarding parental monitoring and teacher support. At T2 and T3, the students completed questionnaires about self-determined motivation and academic self-efficacy. At the end of each school year, in June 2017 (T2b) and June 2018 (T3b), the teachers’ assessments of the students’ academic performance expressed in school marks were collected. A structural equation model was used to test the hypothesised longitudinal relations between the study variables. The results showed that teacher support and parental monitoring directly and positively affected motivation and self-efficacy over time, which, in turn, impacted academic performance positively. The results also indicated that teacher support and parental monitoring indirectly affected academic performance over time through the mediation of motivation and self-efficacy and that the parents’ influence was highest on motivation, while the teachers’ influence was highest on self-efficacy. These results suggest the importance of implementing interventions aimed at enhancing parental monitoring and teacher support to improve students’ academic performance.


À la rentrée 2022, l’ensemble des élèves de CP et de CE1 a été évalué en français et en mathématiques après une année scolaire 2021-2022 encore perturbée par la crise sanitaire.


Educational data mining is an emerging interdisciplinary research area involving both education and informatics. It has become an imperative research area due to many advantages that educational institutions can achieve. Along these lines, various data mining techniques have been used to improve learning outcomes by exploring large-scale data that come from educational settings. One of the main problems is predicting the future achievements of students before taking final exams, so we can proactively help students achieve better performance and prevent dropouts. Therefore, many efforts have been made to solve the problem of student performance prediction in the context of educational data mining. In this paper, we provide readers with a comprehensive understanding of student performance prediction and compare approximately 260 studies in the last 20 years with respect to i) major factors highly affecting student performance prediction, ii) kinds of data mining techniques including prediction and feature selection algorithms, and iii) frequently used data mining tools. The findings of the comprehensive analysis show that ANN and Random Forest are mostly used data mining algorithms, while WEKA is found as a trending tool for students’ performance prediction. Students’ academic records and demographic factors are the best attributes to predict performance. The study proves that irrelevant features in the dataset reduce the prediction results and increase model processing time. Therefore, almost half of the studies used feature selection techniques before building prediction models. This study attempts to provide useful and valuable information to researchers interested in advancing educational data mining. The study directs future researchers to achieve
highly accurate prediction results in different scenarios using different available inputs or techniques. The study also helps institutions apply data mining techniques to predict and improve student outcomes by providing additional assistance on time.


Recent advances in sensor technology, including eye-gaze tracking, have introduced the opportunity to incorporate gaze into student modelling within an embodied learning context. The produced multimodal data is used to uncover cognitive, behavioural, and affective processes during the embodied learning activity. However, the use of eye-tracking data presenting visual attention to understand students’ behaviours and learning performance during engagement with tangible learning activity is rather unexplored. Therefore, this paper explores the integration of eye-gaze features to predict students' learning performance during an embodied activity. We present an in-situ study where 110 primary school students (aged 8–9 years), solved a tangible learning activity for learning human body anatomy. During the experiment, students' learning experience was monitored by collecting their eye-tracking data, learning profiles, academic performances, and time to complete the activity. We applied predictive modelling to identify the synergies between eye-gaze features and students’ learning performance. The obtained results suggest that combining eye-gaze tracking with learning traces and behaviour attributes may support an accurate prediction of students’ learning performance. This research sheds light on the opportunities offered in the intersection of eye-gaze tracking with learning traces, and its possible contribution to investigating students’ behaviour within an embodied learning context.


There is today ample evidence that academic achievement depends on individual disparities in socioeconomic status (SES), working memory (WM) and academic self-concept (ASC). However, because these factors were investigated intensively but in separate fields of research in the past four to six decades, their relationships remain largely unknown. The present study investigated whether SES, WM and ASC interact with each other or represent independent contributions to academic achievement in 2379 adolescents in middle and high schools. The findings confirmed previous results showing that students with lower SES, lower WM and lower ASC perform less well on academic tests. Above all, they revealed subtle patterns of mediating processes. Specifically, individual differences in WM processing, and to a lesser extent in ASC, accounted for most part of the negative impact of low SES on academic achievement. These findings indicate that being a member of disadvantaged groups impair both WM processing and ASC and provide a clearer picture of the complex involvements of socioeconomic, cognitive and self-perception factors in academic achievement.

The present study focuses on how elementary-level student teachers reacted to difficulties during their first internship experience. More specifically, we analysed how their self-efficacy was affected by (a) their perception of failure during the internship, (b) the importance they assigned to their teacher self-aspect, and (c) the interaction between these two constructs. Using a quantitative design (N = 124), we measured their self-efficacy both before and after a 2-week internship. Results showed an overall increase in self-efficacy, but no such increase for participants with high teacher self-aspect who reported high failure experience, which indicated an amplifying moderation effect of teacher self-aspect in the relation between failure experience and change in self-efficacy. We discuss the profile of these “high-importance/high-failure” students and the support that can be given to them.


The role of soft skills at school is still debated, but they have emerged as important factors for students’ academic achievement and life satisfaction. This study focuses on the combined influence of soft skills (in terms of adaptability, curiosity, leadership, initiative, perseverance, and social awareness), extracurricular activities, achievement emotions, self-regulated learning, motivation, and cognitive abilities on academic achievement and life satisfaction. A sample of 603 students (5th to 12th graders) participated in the study. The results of a Bayesian path analysis based on meta-analytical priors show that soft skills were (i) directly positively associated with students’ achievement emotions, self-regulated learning, motivation, and life satisfaction and (ii) indirectly related with academic achievement through the mediation of self-regulated learning and motivation. On the other hand, only soft skills and achievement emotions were directly related to life satisfaction. Extracurricular activities showed a positive association with both soft skills and cognitive abilities. These results are the first to demonstrate the importance of soft skills and extracurricular activities when integrating all the above-mentioned factors in a model of students’ academic achievement and life satisfaction.


This paper investigates the effect of university prestige stratification on scholars’ career achievements. We focus on 766 STEM PhD graduates hired by Mexican universities between 1992 and 2016. We rank university according to their prestige based on the pairwise assessment of quality contained in the PhD hiring networks. Further, we use a quasi-experimental design matching pairs of individuals with the same characteristics, PhD training or first job experience. Our results challenge the positive association between prestige and academic performance as predicted by the ‘Matthew effect’. Scholars hired internally sustain higher performance over their careers in comparison to those who move up or down the prestige hierarchy. Further, we find a positive (negative) relation between downward (upward) prestige mobility and performance that relates to the “big-fish-little-pond” effect (BFLPE). The evidence of a BFLPE-like effect has policy implications because hinders the knowledge flows throughout the science system and individual achievements.

Studies regarding school composition have been highly influential in the design of policies. However, methodological and conceptual controversies have hindered the emergence of a consensus on the existence, size, and direction of peer effects. Drawing on four cohorts of Chilean students (n = 620,044), this work analyses the extent to which the socioeconomic and academic classmates’ characteristics are associated with student attainment. The findings suggest a positive medium- to low-magnitude effect of increases in the peers’ academic performance. At the same time, there are almost no effects associated with changes in the classmates’ socioeconomic status. These findings are stable across school types and are not driven by the sorting of students within them. The results are interpreted in the context of a new nationwide reform aiming to foster school integration and taking advantage of peer effects interaction.


This paper investigates whether work experience gained through a subsidized job program can improve the employment prospects of young school dropouts. Relying on a correspondence study field experiment conducted in France, we find that the chances to be invited for a job interview are more than doubled (from 7.6 percent to 19.3 percent) when youths signal a one-year job-related experience in their résumé - either in the private or public sector; either certified or not - compared to youths who remained mainly inactive after dropping out from high school. We show that this effect is fairly stable across firm, contract or labor market characteristics, and also when testing another channel of application where resumes were sent spontaneously to firms.


S’appuyant sur les données les plus récentes du programme international pour le suivi des acquis des élèves (PISA), cette étude analyse les facteurs les plus fortement liés à la probabilité de quitter prématurément l’éducation et la formation. Elle accorde une attention particulière au statut des migrants, compte tenu des récentes vagues de migration à l’intérieur et à l’extérieur de l’Europe, Les résultats montrent que les élèves migrants ne diffèrent pas structurellement des natifs de l’Union européenne dans leur probabilité de décrochage anticipé, ce qui implique de se concentrer sur des facteurs communs.


Transition into higher education (HE) has received increased interest in recent years, since it represents a challenging period for students. The aim of this study was to further understand the associations between self-efficacy, academic achievements, and
regulation in first-year university students during their transition into HE. The convenience sample consisted of 374 first-year university students (230 females, 61.5%), aged from 18 to 33 (M = 19.86, SD = 1.51) and recruited from an Italian university. Self-efficacy was assessed using the Motivated Strategies for Learning Questionnaire; regulation strategies were assessed with the Inventory of Learning Patterns of Students; and a self-reported grade point average was taken as an indicator of each student’s academic performance. Result shows that students’ self-efficacy was positively associated with self-regulation and negatively associated with a lack of regulation. Students with higher self-efficacy and self-regulation strategies had better academic performance. Female students performed better in academic activities and adopted more external regulation strategies. The findings represent an opportunity for university institutions to consider the interventions they provide to first-year students in order to facilitate the successful transition from secondary school; they also provide researchers with further knowledge about the effect of self-efficacy, and regulation strategies on students’ adjustment to HE.


Although the roles of symbolic numerical magnitude processing (SNMP) and working memory (WM) in mathematics performance are well acknowledged, studies examining their joint effects are few. Here, we investigated the profiles of SNMP (1- and 2-digit comparison) and WM (verbal, visual and central executive) among Norwegian first graders (N = 256), and how these predict performance in counting, arithmetic facts and word problem-solving. Using latent class cluster analysis, four groups were identified: (1) weak SNMP (33.6%), (2) strong SNMP (25.8%), (3) weak SNMP and WM (23.4%) and (4) strong WM (17.2%). Group differences in mathematics performance were significant with explained variance ranging from 7 to 16%, even after controlling for relevant demographics and domain-general cognitive skills. Our findings suggest that children may display relative strengths in SNMP and WM, and that they both have a unique, even compensatory role in mathematics performance.


With the advent of smartphones and fourth generation mobile technologies, the effect of social media on society has stirred up some debate and researchers across various disciplines have drawn different conclusions. Social media provides university students with a convenient platform to create and share educational content. However, social media may have an addicting effect that may lead to poor health, poor concentration in class, poor time management and consequently poor academic performance. Using a random sample of 623 students from the University of Professional Studies Accra, Ghana, this paper presents a social media influence factor (SMIF) model for measuring the effect of social media on student academic performance. The proposed model is examined using linear regression analysis and the results show a statistically significant negative relationship between SMIF variables and student grade point average (GPA). The model accounted for 30.7% of the variability in student GPA and it demonstrated a prediction quality of 55.4% given the data collected.

Due to the growing demand for information technology skills, programming education has received increasing attention. Predicting students’ programming performance helps teachers realize their teaching effect and students’ learning status in time to provide support for students. However, few of the existing researches have taken the code that students wrote into consideration. In fact, code is informative and contains lots of attributes. Student programming performance can be better understood and predicted by adding code information into student profiles. This paper proposed a student profiles model to describe students’ characteristics, which contains the code information and then was used as the input of a deep neural network to predict the programming performance. By comparing different machine learning techniques and different combinations of dimensions of student profiles, the experimental results show that a four-layer deep neural network fed with all available dimensions of student profiles has achieved the best prediction with RMSE 12.68.


Under current test-driven educational accountability policies, there has been a debate about school effectiveness. As conventionally measured by test scores in academic subjects, school effectiveness is often limited and potentially biased. With increasing emphasis on preparing students with both cognitive and noncognitive competencies, educational leaders demand «whole child» approaches for schooling. This study examines whether and how different types of school climate in Eastern versus Western school systems affect whole child development. It applies multivariate multilevel models of school effects using the PISA 2015 datasets from B-S-J-G (China), Korea, Finland, and the U.S., which vary in science achievement and life satisfaction. The study results show cross-national differences in these relationships between Eastern and Western school systems. It sheds new light on the need to balance academic and emotional learning goals and develop a whole school climate with culturally appropriate mixes of both «high expectations/discipline» and «high caring/support» toward whole child development.


Two meta-analyses assessed whether the relations between reading and mathematics outcomes could be explained through overlapping skills (e.g., systems for word and fact retrieval) or domain-general influences (e.g., top-down attentional control). The first (378 studies, 1,282,796 participants) included weighted random-effects meta-regression models to explore and contrast the magnitudes of the links between different reading and mathematical competencies. The second (138 studies, 39,836 participants) used meta-analytic structural equation modeling to determine the influence of a domain-general factor, defined by intelligence, executive functioning, working and short-term memory, and processing speed measures, on the link between reading and
mathematics skills. The overall relation was significant ($r=0.52$), as were all associations between specific reading and mathematics measures ($rs = 0.23$ to $0.61$, $ps<.05$). Most of the correlations were similar across different types of reading and mathematics competencies, although generally smaller than within-domain correlations. The domain-general model explained most of the covariance between reading and mathematics outcomes, with a few modest moderating effects (e.g., age). The results imply correlations between reading and mathematics measures are largely due to domain-general processes, although within-domain correlations confirm the importance of overlapping competencies especially for reading.


Roughly half of 4-year students who begin as STEM majors either change to non-STEM majors or drop out of college altogether. STEM attrition is especially disconcerting for underserved students, such as people of color or individuals from low-income families, who are significantly less likely to persist in or graduate from a STEM degree program when compared to their White or higher-income peers. Previous researchers have reported that co-enrolling at more than one institution (or swirling between institutions) can be associated with higher rates of persistence and graduation. In this study, we leverage student-level transcript data from a high enrollment, broad-access university to examine the influence of math swirling on underserved students’ academic outcomes within high-demand STEM degree programs. We find that math swirling is positively related to persistence to upper-division math courses and bachelor’s degree completion in non-STEM degree programs, but math swirling has no influence on students’ likelihood of bachelor’s degree completion in high-demand STEM fields.


Mothers and adolescents often perceive parenting differently, but it is unclear how different profiles of mother-adolescent perceived parenting and developmental transitions of such profiles would influence adolescent academic performance longitudinally. The current study adopted a three-wave dataset of 604 Mexican-origin adolescents (54% female; $M_{wave1.age} = 12.92$ years) and 595 mothers. Adolescents who agreed on high levels of positive parenting with their mothers in early adolescence (i.e., the Both High group) and stayed in the Both High group demonstrated the best academic performance in late adolescence. However, adolescents who changed from the Both High group in early adolescence and ended with discrepancies in perceived parenting or an agreement on low positive parenting with mothers in late adolescence had the worst academic performance. The findings suggest the plasticity of mother-adolescent relationships during adolescence, which can be an intervention target to improve Mexican-origin adolescent academic performance.


Against the backdrop of teaching being downplayed in higher education, this study unravels how the university faculty members’ implementation of teaching excellence is influenced by the interplay of objective structural conditionings and subjective internal deliberations, drawing upon Margaret Archer’s social realist framework and her distinction between human reflexive modalities. By exploring 21 faculty members from three Chinese universities with different structural constraints and enablements, the study shows that dual modalities are manifest in all faculty members, among which meta-reflexivity applies to everyone. However, autonomous reflexivity and communicative reflexivity play more dominant roles in generating purposeful actions under the same structure. Furthermore, some structural forces are non-negotiable constraints, and people having the same reflexivity modality may act differently under different structural conditionings. The study calls for universities to cater to both structural arrangements and reflexive deliberations to transform constraints into enablements for teaching excellence.


Les enfants et les adolescents sont loin de se désintéresser de la politique. Mais l’éducation civique qui leur est dispensée leur donne-t-elle tous les moyens de décrypter ces enjeux citoyens ?


ces changements. Le document appelle à une nouvelle approche des gouvernements, des donateurs bi-/multilatéraux et privés et des organisations de la société civile pour faire face à ce changement dans et par l’éducation. Il donne un cadre d’actions prioritaires, notamment pour les pays à revenu faible et intermédiaire de la tranche inférieure, des connaissances, des compétences et des moyens d’action en matière de climat.

L’Observatoire des politiques d’intelligence artificielle de l’OCDE répertorie un nombre important de réflexions, au sein de différents pays, sur l’application de l’intelligence artificielle (IA) au sein de la société. Dans les dispositifs à base d’IA, la donnée occupe un rôle central, dans un équilibre à trouver entre innovation et confiance : indispensable pour entraîner des algorithmes, l’utilisation des données soulève un certain nombre de défis, en termes de sécurité, d’éthique, de gouvern...

The public funding or even toleration of religious minority schools, particularly Muslim faith schools, is controversial in West European countries. Political theorists often posit that parents’ right to choose these schools conflicts with the equally or more important societal concerns with child autonomy and civic integration or education to liberal-democratic citizenship. Yet, few empirical studies have addressed the issue and findings are mixed. Using unique survey and administrative data on ninth grade pupils in Danish Muslim schools compared to Muslims in state schools, the study finds no indication of lower levels of civic integration in terms of national belonging, social trust and outgroup prejudice, or liberal democratic orientation, indeed Muslim schools seem to do a little better. Different explanations for this are possible, and the findings may not be generalizable to other national contexts, but they do cast some doubt on present political hostility towards the schools.

Are Students Ready to Take on Environmental Challenges? identifies the types of education policy and practices that can help students build an environmentally sustainable future.

While research on education for sustainable development (ESD) is expanding, empirical evidence on its impact and outcomes remains very limited. Moreover, the facilitating
role of the school organization, while extensively documented in literature on school management and school effectiveness, is lacking. In this study we present and qualitatively validate a framework for an ESD-effective school, previously developed via a critical review of ESD and school management literature. This framework consists of eight characteristics: sustainable leadership, school resources, pluralistic communication, supportive relations, collective efficacy, adaptability, democratic decision-making and shared vision. Via semi-structured interviews, the framework for an ESD-effective school was theoretically validated via a sample of 19 teachers and school leaders with expertise in ESD. The findings from the interviews show that the participants largely confirm the framework and the individual characteristics are recognized by the sample. There were relevant differences between the respondents in terms of positioning the different characteristics within the framework. Specifically, views on pluralistic communication differed from the initial conceptual framework.

La République orientale de l’Uruguay est le plus petit pays d’Amérique du Sud, après le Surinam, avec une surface de 176 215 km². Avec 3 286 314 habitants, selon le dernier recensement de l’Institut national de statistiques (INE) en 2011, elle se situe au dixième rang des douze pays d’Amérique du Sud. Montevideo, la capitale, est la ville la plus peuplée avec 1,3 million d’habitants et une zone métropolitaine d’environ 2 millions, soit 56,3 % de la population totale. Selon les Nations unies, ...