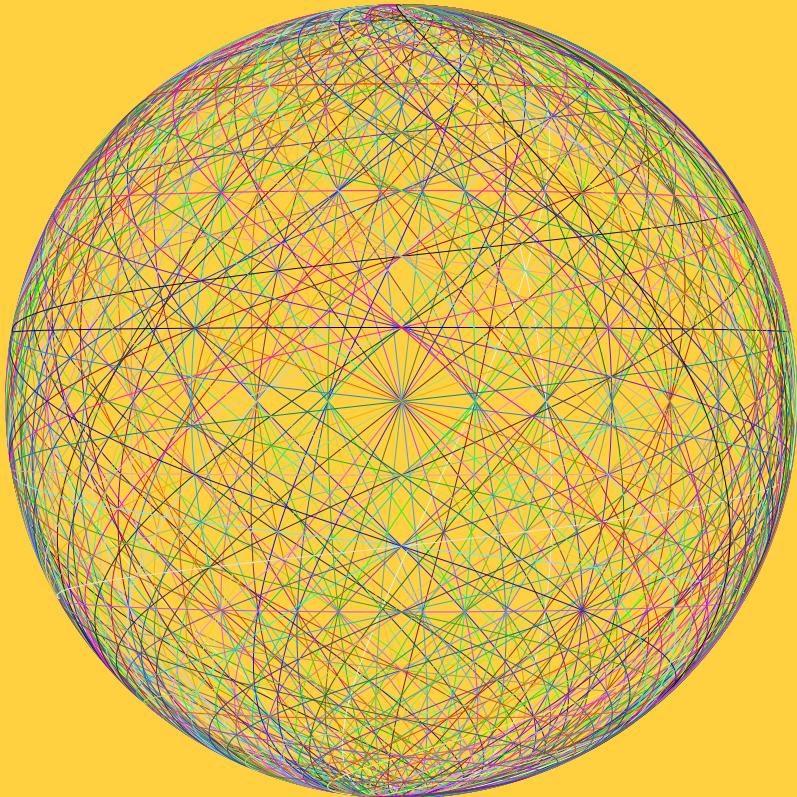


# Thirty-First International Conference on Learning



**The Converging Challenges for Inclusive Education:**  
Intercultural Competences and Digital Literacies in  
Global Contexts

UTRECHT UNIVERSITY, UTRECHT, NETHERLANDS    10-12 JULY 2024



Thirty-First International Conference on Learning Conference Proceedings

<https://thelearner.com/about/history/2024-conference>

<https://sobreaprendizaje.com/acerca-de/historia/congreso-2024>

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# Welcome Letters



18 April 2024

Dear Conference Participants,

We welcome you to Utrecht for the 31st International Conference on Learning on "The Converging Challenges for Inclusive Education: Intercultural Competences and Digital Literacies in Global Contexts." Our conference, which runs from 10 July 2024 to 12 July 2024, will provide exciting opportunities to meet delegates in person and on CGScholar.

Founded in 1989, The Learner Research Network is brought together around a common concern for learning in all its sites, formal and informal, and at all levels, from early childhood, to schools, colleges and universities, and adult, community, and workplace education. We seek to build an epistemic community where we can make linkages across disciplinary, geographic, and cultural boundaries. As a Research Network, we are defined by our scope and concerns and motivated to build strategies for action framed by our shared themes and tensions.

Utrecht University is excited to host this year's conference. Our institution is committed to promoting inclusive teaching and learning opportunities to our international community. We extend this commitment to the conference and its delegates.

Utrecht is a medieval city with Gothic buildings, including most notably the Cathedral of St. Martin that you will no doubt see and encounter during your stay with us. The city offers numerous opportunities to explore the rich historical and cultural facets of the Netherlands. We encourage you to explore the many buildings on campus and around the city that are steeped in local and European history.

We wish you a great experience at the conference and an enjoyable stay in Utrecht.

Sincerely,

Kristi Jauregi-Ondarra  
Christopher Jenks  
Conference Chairs  
Utrecht University



New Thinking

New Practices

New Societies

International Independent Interdisciplinary Scholar-led Non-Profit  
Research Networks Conferences Journals Books Media Lab Since 1984



Dear Conference Participants,

On behalf of Common Ground Research Networks, I welcome you to the Thirty-First International Conference on Learning.

Founded in 1989, The Learner Research Network is brought together around a common concern for learning in all its sites, formal and informal, and at all levels, from early childhood, to schools, colleges and universities, and adult, community and workplace education. We seek to build an epistemic community where we can make linkages across disciplinary, geographic, and cultural boundaries. As a Research Network, we are defined by our scope and concerns and motivated to build strategies for action framed by our shared themes and tensions.

This truly international conference brings together a diverse group of scholars, practitioners, and thought leaders from around the world. We are proud to provide a platform for exchanging ideas, and presenting research, addressing some of the pressing issues of our time.

Our conference theme, "The Converging Challenges for Inclusive Education: Intercultural Competences and Digital Literacies in Global Contexts" reflects our commitment to exploring new frontiers in research and practice. Over the next few days, In-Person or Online, you will have the opportunity to attend keynotes, panel discussions, and other session types led by our Emerging Scholars. We encourage you to take full advantage of these sessions to gain new insights, expand your professional network, and find inspiration for your own work.

We want to thank our keynote speakers Ciara R. Wigham, Melinda Dooly, Ana Gimeno, Wouter van Joolingen, Bill Cope, Mary Kalantzis, Local Chairs Kristi Jauregi-Ondarra, Christopher Jenks, presenters, and volunteers whose dedication and hard work have made this conference possible. We also thank our host partner Utrecht University for their generous support.

We hope you find this conference to be an intellectually stimulating and rewarding experience. Your active participation is crucial to the success of this event, and we look forward to the lively discussions and valuable connections that will emerge over the next few days.

Warm regards,

A handwritten signature in black ink, appearing to read 'Phillip Kalantzis Cope'.

Dr. Phillip Kalantzis Cope  
Chief Social Scientist  
Common Ground Research Networks



# The Learner Research Network

# Scope & Concerns



Founded in 1989, **The Learner Research Network** is brought together around a common concern for learning in all its sites, formal and informal, and at all levels, from early childhood, to schools, colleges and universities, and adult, community, and workplace education.

## Learning and Education: Their Breadth and Depth

'Learning' is bigger than education. Humans are born with an innate capacity to learn, and over the span of a lifetime learning never stops.

Learning simply happens as people engage with each other, interact with the natural world and move about in the world they have constructed. Indeed, one of the things that makes us distinctively human is our enormous capacity to learn. Other species learn, too, from the tiniest of insects to the smartest of chimpanzees. But none has practices of pedagogy or institutions of education. As a consequence, the main way in which other species develop over time is through the incremental, biological adaptations of evolution. Change is natural. It is slow.

Education makes human learning unlike the learning of any other creature. Learning allows humans to escape the strict determinations of nature. It gives humans the resources with which to understand themselves and their world, and to transform their conditions of living, for better or for worse.

Education is a peculiarly human capacity to nurture learning in a conscious way, and to create social contexts that have been specially designed for that purpose: the institutions of education. Everyday learning happens naturally, everywhere and all the time. Education – encompassing institutions, its curricula and its pedagogies – is learning by design.

## The Art and Science of Teaching

Teaching and learning are integral to our nature as humans.

Teaching happens everywhere. Many people are naturally quite good at teaching. They explain things clearly. They are patient. And they have the knack of explaining just enough, but not too much, so the learner gains a sense that they are gradually mastering something, albeit with a more knowledgeable person's support. You can find the practice of teaching in action everywhere in everyday life. In fact, it is impossible to imagine everyday life without it.

Teaching is also a vocation, a profession. People in the business of teaching are good at their job when they have developed and apply the dispositions and sensibilities of the person who is a good teacher in everyday life.

But there is much more to the teaching profession than having a natural knack, however well practiced. There is also a science to education, which adds method and reflexivity to the art of teaching, and is backed up by a body of specialist knowledge. This science asks and attempts to answer fundamental and searching questions. How does learning happen? How do we organize teaching so it is most effective? What works for learners? And when it works, how do we know it has worked? The science of education attempts to answer these questions in a well thought-through and soundly analyzed way.

# Scope & Concerns



## Learning Practices

Learning is how a person or a group comes to know, and knowing consists of a variety of types of action.

In learning, a knower positions themselves in relation to the knowable, and engages. Knowing entails doing—experiencing, conceptualizing, analyzing or applying, for instance.

FA learner brings their own person to the act of knowing, their subjectivity. When engagement occurs, they become a more or less transformed person. Their horizons of knowing and acting have been expanded.

Learning can be analyzed at three levels: 'pedagogy', or the microdynamics of moments of teaching and learning; 'curriculum', or the learning designs for particular areas of knowledge; and 'education' or the overall institutional setting in which pedagogy and curriculum are located.

Pedagogy is a planned and deliberate process whereby one person helps another to learn. This is what First Peoples did through various formalized rites of passage, from child to adult to elder – learning law, spirituality and nature. It is also how teachers in the era of modern, mass, institutionalized education have organized the learners in their classrooms and their learning. Pedagogy is the science and practice of the dynamics of knowing. Assessment is the measure of pedagogy: interpreting the shape and extent of the knower's transformation.

Curriculum is the substantive content of learning and its organization into subjects and topics – mathematics, history, physical education and the like. In places of formal and systematic teaching and learning, pedagogy occurs within these larger frameworks in which the processes of engagement are given structure and order. These often defined by specific contents and methodologies, hence the distinctive 'disciplines'. Well might we ask, what is the nature and future of 'literacy', 'numeracy', 'science', 'history', 'social studies', 'economics', 'physical education' and the like? How are they connected, with each other, and a world in a state of dynamic transformation? And how do we evaluate their effectiveness as curriculum?

Education has traditionally been used with reference formal learning communities, the institutions of school, college and university that first appeared along with the emergence of writing as a tool for public administration (to train, for instance, 'mandarins' or public officials in imperial China, or the writers of cuneiform in ancient Mesopotamia/Iraq); to support religions founded on sacred texts (the Islamic madrasa , or the Christian monastery); and to transmit formally developed knowledge and wisdom (the Academy of ancient Athens, or Confucian teaching in China).

Learning happens everywhere and all the time. It is an intrinsic part of our human natures. Education, however is learning by design, in community settings specially designed as such—the institutions of early childhood, school,

technical/vocational, university and adult education. Education also sometimes takes informal or semiformal forms within settings whose primary rationale is commercial or communal, including workplaces, community groups, households or public places.

## Towards a Science of Education

What is this overarching institution, 'education'?

In its most visible manifestation it consists of its institutional forms: schools, colleges and universities. But, more broadly conceived, education is a social process, a relationship of teaching and learning. As a professional practice, it is a discipline.

# Scope & Concerns



The science of education analyzes pedagogy, curriculum and educational institutions. It is a discipline or body of knowledge about learning and teaching – about how these practices are conceived and realized.

'Science' or 'discipline' refers to a privileged kind of knowledge, created by people with special skills who mostly work in research, academic or teaching jobs. It involves careful experimentation and focused observation. Scientists systematically explore phenomena, discover facts and patterns and gradually build these into theories that describe the world. Over time, we come to trust these and ascribe to them the authority of science.

In this spirit, we might create a science of education that focuses on the brain as a biological entity and the mind as a source of behaviors (cognitive science). Or we might set up experiments in which we carefully explore the facts of learning in order to prove what works or doesn't work. Like the medical scientist, we might give some learners a dosage of a certain kind of educational medicine and others a placebo, to see whether a particular intervention produces better test results—such are the formal experimental methods of randomized, controlled trials.

Often, however, we need to know more. It is indeed helpful to know something of how the mind works, but what of the cultural conditions that also form the thinking person? We need good proofs of which kinds of educational interventions work, but what if the research questions we are asking or the tests we are using to evaluate results can only measure a narrow range of capacities and knowledge? What if the tests can prove that the intervention works – scores are going up – but some learners are not engaged by a curriculum that has been retrofitted to the tests? What if the tests only succeed in measuring recall of the facts that the tests expect the learners to have acquired – simple, multiple-choice or yes/no answers? A critic of such 'standardized testing' may ask, what's the use of this in a world in which facts can always be looked up, but problem solving and creativity are now more sought-after capacities, and there can be more than one valid and useful answer to most of the more important questions? For these reasons, we also need to work with a broader understanding of the discipline of education, based on a broader definition of science than experimental methods.

## An Interdisciplinary Science

The discipline of education is grounded in the science of learning, or how people come to know.

In its most visible manifestation it consists of its institutional forms: schools, colleges and universities. But, more broadly conceived, education is a social process, a relationship of teaching and learning. As a professional practice, it is a discipline.

The science of education analyzes pedagogy, curriculum and educational institutions. It is a discipline or body of knowledge about learning and teaching – about how these practices are conceived and realized.

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## Education as the Science of Sciences

Education is also the soil in which all the other disciplines grow.

You can't do any of the other disciplines in a university or college except through the medium of education. No other discipline exists except through its learning. A novice can only enter a discipline – physics, or law, or history, or literature – through education, learning the accumulated knowledge that has become that discipline. In this sense, education is more than just interdisciplinary. It does more than just stitch together other disciplines. It is a metadiscipline, essential as the practical grounding of all disciplines. Education is the discipline of disciplines.

# Scope & Concerns



!Education is the systematic investigation of how humans come to know. It focuses on formal, institutionalized learning at all its levels from preschool to school, college and university. Education is also concerned with the processes of informal learning – how babies learn to speak at home, or how children and adults learn to use an interface or play a game. It is concerned with how organizations and groups learn, collecting and acquiring knowledge that is applied in their communities, professions and workplaces. In fact, as knowledge is needed and used everywhere, learning happens everywhere. There is no part of our lives to where the discipline of education cannot provide a useful perspective.

Maybe, then, education is more than just an interdisciplinary place that ties together shreds and patches from other disciplines – a bit of psychology here, a bit of sociology there, a bit of management there. Education should be regarded as the metadisciplinary foundation of all disciplines. Its focus is the science of knowing, no less.

The metadiscipline of education inquires into learning, or how we come to know and be. Education-as-metadiscipline explores knowing and being. It analyzes how people and groups learn and come to be what they are. As such, it is an especially expansive exploration of knowing. It is interested to know how knowing happens and how capacities to know develop.

## Education is the New Philosophy

What if we were to think of education in these more expansive and more ambitious ways?

If we are to think in these terms, then the intellectual and practical agenda of education is no less than to explore the bases and pragmatics of human knowledge, becoming and identity. Education asks this ur -disciplinary question: How is it that we come to know and be, as individuals and collectively? If this is education's central question, surely, then, we can argue that it is the source of all other disciplines? It is the means by which all other disciplines come into being.

Philosophy used to claim a metadisciplinary position like this. It was the discipline where students not only thought, but thought about thinking. However, for decades, philosophy has been making itself less relevant. It has become too word-bound, too obscure, too formal and too disconnected from practical, lived experience.

But philosophy's metaquestions still need to be asked. Education should perhaps take the former position of philosophy as the discipline of disciplines, and do it more engagingly and relevantly than philosophy ever did. Education is the new philosophy.

## Investing in Education for a 'Knowledge Society'

Add to these expanded intellectual ambitions, widened ambitions for education in public discourse and everyday social reality—and these should be good times to be an educator.

Politicians and captains of industry alike tell us that knowledge is now a key factor of production, a fundamental basis of competitiveness – at the personal, enterprise and national levels. And as knowledge is a product of learning, education is more important than ever. This is why education has become such a prominent topic in the public discourse of social promise.

The expectations of education have been ratcheted up. More than ever before, people are saying that education is pivotal to social and economic progress. This does not necessarily translate immediately into greater public investment in education (a businesslike approach, one would think). But today's rhetoric about the importance of education does give educators greater leverage in the public discourse than we had until recently.

# Scope & Concerns



IStated simply, in a knowledge economy in which more and more jobs require greater depths of knowledge, schools must do what they can to bridge the knowledge gaps. If they can achieve this, they are at least doing something to ameliorate the worst systemic material inequalities. Schools, in other words, have a new opportunity, a new responsibility and a new challenge to build societies that are more inclusive of social classes whose access to material resources was historically limited.

Despite this, educators struggle to find the resources to meet increasing expectations, despite all talk of a 'knowledge society' and 'new economy'. We may have listened to this rhetoric with a great deal of skepticism given the struggles we educators face. Nevertheless, we need to grasp what is rhetorically or genuinely new in our times. We must seize the drift of contemporary public discourse, and position ourselves centrally. Here is our chance: the stuff of knowledge is no more and no less than the stuff of learning. Surely too, this new kind of society requires a new kind of learning and that a new social status is ascribed to education. It is our role as educators to advocate for education, to make a claim for the allocation of the social resources required in order to meet expanding expectations.

## Designs for Social Futures: Towards 'New Learning'

How might we imagine a better society which locates education at the heart of things?

IThis heart may well be economic in the sense that it is bound to material self-improvement or personal ambition. Equally, however, education is a space to re-imagine and try out a new and better world which delivers improved material, environmental and cultural outcomes for all. Education must surely be a place of open possibilities, for personal growth, for social transformation and for the deepening of democracy. Such is the agenda of 'New Learning', explicitly or implicitly. This agenda holds whether our work and thinking is expansive and philosophical or local and finely grained.

If we were to choose a single word to characterize the agenda of the New Learning, it is to be 'transformative'. New Learning is thus not simply based on a reading of change. It is also grounded in an optimistic agenda in which we educators can constructively contribute to change. If knowledge is indeed as pivotal in contemporary society as the 'new economy' commentators and politicians claim, then educators should seize the agenda and position themselves as forces of change. We have a professional responsibility to be change agents who design the education for the future and who, in so doing, also help design the future.

You might see this as a sensible conservatism, sensible for being realistic about the contemporary forces of technology, globalization and cultural change. Or you could see it to be an emancipatory agenda that aspires to make a future that is different from the present by addressing its many crises – of poverty, environment, cultural difference and existential meaning, for instance. In other words, the transformation may be pragmatic (enabling learners to do their best in the given social conditions) or it may be emancipatory (making the world a better place) or it may be both.

At its best, transformative New Learning embodies a realistic view of contemporary society, or the kinds of knowledge and capacities for knowing that children need to develop in order to be good workers in a 'knowledge economy'; participating citizens in a globalized, cosmopolitan society; and balanced personalities in a society that affords a range of life choices that at times feels overwhelming. It nurtures the social sensibilities of a kind of person who understands that they determine the world by their actions as much as they are determined by that world. It creates a person who understands how their individual needs are inextricably linked with their responsibility to work for the common good as we become more and more closely connected into ever-expanding and overlapping social networks.

The issue is not merely one of quantity. It is not simply a matter of providing more education for more people. While many nations persevere with educational structures founded in the 19th century or earlier, the knowledge economy demands different and creative approaches to learning. Schools, at least in their traditional form, may not dominate the educational landscape of the 21st century. Neat segregations of the past may crumble. Givens may give.

# Scope & Concerns



## Learner Diversity

No learning exists without learners, in all their diversity.

It is a distinctive feature of the New Learning to recognize the enormous variability of lifeworld circumstances that learners bring to learning. The demographics are insistent: material (class, locale, family circumstances), corporeal (age, race, sex and sexuality, and physical and mental characteristics) and symbolic (culture, language, gender, affinity and persona). This conceptual starting point helps explain the telling patterns of educational and social outcomes.

Behind these demographics are real people, who have always already learned and whose range of learning possibilities are both boundless and circumscribed by what they have learned already and what they have become through that learning. Here we encounter the raw material diversity – of human experiences, dispositions, sensibilities, epistemologies and world views. These are always far more varied and complex than the raw demographics would at first glance suggest. Learning succeeds or fails to the extent that it engages the varied identities and subjectivities of learners. Engagement produces opportunity, equity and participation. Failure to engage produces failure, disadvantage and inequality.

The questions we face as educators today are big, the challenges sometimes daunting. How do we, for instance, ensure that education fulfills its democratic mission, through quality teaching, a transformative curriculum and dedicated programs that address inequality? Targeting groups who are disadvantaged and ‘at risk’ is an essential responsibility of educators, not on the basis of moral arguments alone but also because of the economic and social dangers of allowing individuals and groups to be excluded.

## Education’s Agendas

Professional educators of tomorrow will not be people who simply enact received systems, standards, organizational structures and professional ethics.

In this time of extraordinary social transformation and uncertainty, educators need to consider themselves to be designers of social futures, to search out new ways to address the learning needs of our society, and in so doing to position education at an inarguably central place in society.

Indeed, powerful educational ideas – about how people act and build knowledge in context and in collaboration with others, for instance – could well become leading social ideas in currently more privileged areas of endeavor, such as business and technology. Perhaps, if we can succeed at putting education at the heart of the designs for society’s future, we might even be able to succeed in our various campaigns to ensure that education is innovative, empowering, just and adequately resourced.

Education in all its aspects is in a moment of transition today. The idea of ‘New Learning’ contrasts what education has been like in the past, with the changes we are experiencing today, with an imaginative view of the possible features of learning environments in the near future. What will learning be like, and what will teachers’ jobs be like? Are we educators well enough equipped to answer the questions we encounter and address the challenges we face? Does our discipline provide us with the intellectual wherewithal to face changes of these proportions? It could, but only if we conceive education to be a science as rigorous in its methods and as ambitious in its scope as any other.

Education’s agenda is intellectually expansive and practically ambitious. It is learner-transformative, enabling productive workers, participating citizens and fulfilled persons. And it is world-transformative as we interrogate the human nature of learning and its role in imagining and enacting new ways of being human and living socially: shaping our identities, framing our ways of belonging, using technologies, representing meanings in new ways and through new media, building participatory spaces and collaborating to build and rebuild the world. These are enormous intellectual and practical challenges.

# Scope & Concerns



Transformative education is an act of imagination for the future of learning and an attempt to find practical ways to develop aspects of this future in the educational practices of the present. It is an open-ended struggle rather than a clear destination, a process rather than a formula for action. It is a work-in-progress.

The science of education is a domain of social imagination, experimentation, invention and action. It's big. It's ambitious. And it's determinedly practical.

The Learning Conference, journals, book imprint and online network provide a forum for dialogue about the nature and future of learning. They are places for presenting research and reflections on education both in general terms and through the minutiae of practice. They attempt to build an agenda for a new learning, and more ambitiously an agenda for a knowledge society which is as good as the promise of its name.

# Themes & Tensions



## Pedagogy and Curriculum

Exploring the processes of designing and implementing learning experiences, including decisions regarding content (curriculum) and strategies for instruction (pedagogy).

### **Living Tensions:**

- Pedagogical theory and instructional practice
- Curriculum as a program of learning
- Educational reform in curriculum and instruction
- Differentiating and personalizing instruction
- Teachers' content knowledge or pedagogical knowledge

## Assessment and Evaluation

Investigates the processes of specifying educational outcomes and designing methods for measuring student learning, evaluating the effectiveness of educational interventions, or assessing the impact of educational programs on learners, teachers, institutions, and society.

### **Living Tensions:**

- Purposes of assessment (diagnostic, formative, summative)
- The politics and practice of educational accountability
- Intelligence or ability, competence or capacity: what are the measurable ends of education?
- Assessment strategies (portfolio, adaptive, computer, embedded)
- Types of educational measurement (qualitative, quantitative; cognitive, affective, performance)
- Educational research methodologies (descriptive, experimental, participatory, action research)
- Program evaluation: purposes, strategies, role in educational reform

## Educational Organization and Leadership

Inquires into the organization of formal systems of education and their impact on the teaching and learning process. Examines issues of professionalism in education and the roles of administrators and governing bodies on the educational institution and environment.

### **Living Tensions:**

- Learning environments: the changing shape of educational institutions, and changing sites of learning
- The role of educational organizations in society and/or social change
- The teaching profession: teachers' work, roles, and responsibilities
- Educational policies
- The changing purposes of education: shaping new kinds of worker, citizen and personal identities
- Educational administrators: effective leadership in a changing society

# Themes & Tensions



## Early Childhood Learning

Investigations of learning and development in the first seven years of life, and the impact of formal, family, and socio-cultural influences on early learning.

### **Living Tensions:**

- Influences of family and social/cultural environments on early learning
- Early childhood education: the roles of daycare, preschool, kindergartens
- Early childhood literacies, arts and communications
- Early childhood numeracies and science

## Learning in Higher Education

Studies of tertiary or postsecondary education: institutional concerns (admissions, funding, scope and quality of educational offerings); instructional strategies and effectiveness with tertiary learners; the postsecondary learning environment. Also includes teacher education programs: their place in the university, how to prepare today's pre-service teachers for tomorrow's schools; issues of requirements, licensure, balancing theoretical and applied learning.

### **Living Tensions:**

- The future of the university: its links to work, citizenship and identity
- Tertiary teaching and learning
- Knowledge ecologies: linking research and teaching in higher education
- Pre-service teacher education: policies, programs, and practices

## Adult, Community, and Professional Learning

Explores adult learning in a variety of contexts, from adult basic education to workplace training and professional learning. Includes in-service and professional development for teachers.

### **Living Tensions:**

- Formal and informal learning opportunities for adult learners
- Lifelong learning for the society of constant change
- Professional continuing education and workplace training and development
- Vocational education and training for the future
- Apprenticeship and other models of technical and further education
- Popular and community education
- Teacher in-service and professional development

# Themes & Tensions



## Learner Diversity and Identities

Focuses on recognizing and responding to individual diversity in learners and on the dynamics of teaching and learning in diverse communities and classrooms. Considers issues of learners' identities and inter-relationships among students, as well as strategies for promoting social justice, multicultural understanding, and tolerance.

### **Living Tensions:**

- Inclusive education
- Equity, participation and opportunity
- Minorities and Majorities: how these are changing
- Special education, learning difficulties, disability
- International, global, multicultural and cross-cultural education

## Technologies in Learning

Explores the role of technologies in learning, and processes of learning about and through technologies.

### **Living Tensions:**

- Technology and human values: learning through and about technology
- Crossing the digital divide: access to learning in, and about, the digital world
- New tools for learning: online digitally mediated learning
- Virtual worlds, virtual classrooms: interactive, self-paced and autonomous learning
- Ubiquitous learning: using the affordances of the new mediaDistance learning: reducing the distance

## Literacies Learning

Inquiries into the processes of learning to read, write and communicate using new media and multimodal literacies.

### **Living Tensions**

- Defining new literacies
- Languages of power: literacy's role in social access
- Instructional responses to individual differences in literacy learning
- The visual and the verbal: Multiliteracies and multimodal communications
- Literacy in learning: language in learning across the subject areas
- The changing role of libraries in literacies learning
- Languages education and second language learning
- Multilingual learning for a multicultural world
- The arts and design in multimodal learning
- The computer, internet, and digital media: educational challenges and responses

# Themes & Tensions



## Science, Mathematics and Technology Learning

Studies of best practices in teaching and learning science, mathematics and technology.

### **Living Tensions**

- Science disciplines: learning physics, chemistry, biology and other sciences
- Learning in and about the natural environment
- Modes of instruction (didactic, inquiry, collaborative)
- Mathematics pedagogies
- Learning about and through technologies
- Teachers' pedagogical content knowledge

# Research Network Chairs



## Bill Cope

University of Illinois, Urbana-Champaign, IL, United States



**Bill Cope** is a professor in the Department of Education Policy, Organization & Leadership at the University of Illinois, Urbana-Champaign. He and Mary Kalantzis are directors of Common Ground Research Networks, a not-for-profit organization developing and applying new publishing technologies. His research interests include theories and practices of pedagogy, cultural and linguistic diversity, and new technologies of representation and communication. His and Kalantzis' recent research has focused on the development of digital writing and assessment technologies, with the support of a number of major grants from the US Department of Education, the Bill and Melinda Gates Foundation, and the National Science Foundation. The result has been Scholar, a multi-modal writing and assessment environment.

## Mary Kalantzis

University of Illinois, Urbana-Champaign, IL, United States



**Mary Kalantzis** was dean of the College of Education at the University of Illinois, Urbana-Champaign, United States from 2006 to 2016. Before this, she was dean of the Faculty of Education, Language and Community Services at RMIT University, Melbourne, Australia, and president of the Australian Council of Deans of Education. With Bill Cope, she has co-authored or co-edited: *New Learning: Elements of a Science of Education*, Cambridge University Press, 2008 (2nd edition, 2012); *Ubiquitous Learning*, University of Illinois Press, 2009; *Towards a Semantic Web: Connecting Knowledge in Academic Research*, Elsevier, 2009; *Literacies*, Cambridge University Press 2012 (2nd edition, 2016); *A Pedagogy of Multiliteracies*, Palgrave, 2016; and *e-Learning Ecologies*, Routledge, 2016.

# Advisory Board



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# **Thirty-First International Conference on Learning**



Founded in 1989, **International Conference on Learning** is brought together around a common concern for learning in all its sites, formal and informal, and at all levels, from early childhood, to schools, colleges and universities, and adult, community and workplace education.

## Past Events:

- 2003 - University of the Aegean, Rhodes, Greece
- 2004 - Monash University Centre in Prato, Italy
- 2005 - Cambridge University, Cambridge, UK
- 2006 - University of Carthage in Tunis, Tunisia
- 2007 - American University of Paris, France
- 2008 - Fatih University, Istanbul, Turkey
- 2009 - Friendship Palace, Beijing, China
- 2010 - University of California, Los Angeles, USA
- 2011 - Universidad de Granada, Granada, Spain
- 2012 - The Centre Mont-Royal, Montréal, Canada
- 2013 - Eötvös Loránd University, Budapest, Hungary
- 2014 - Universidad CEU San Pablo, Madrid, Spain
- 2015 - University of British Columbia, Vancouver, Canada
- 2016 - University of Illinois at Chicago, Chicago, USA
- 2017 - Imperial College London, London, UK
- 2018 - University of Pennsylvania, Philadelphia, USA
- 2019 - University of Granada, Granada, Spain
- 2020 - Ca' Foscari University of Venice, Venice, Italy (Virtual)
- 2021 - Universidad Complutense Madrid, Spain
- 2022 - University of Valencia, Valencia, Spain
- 2023 - University of São Paulo, São Paulo, Brazil

# Conference Chairs



## Kristi Jauregi Ondarra

Associate Professor, Utrecht University, Utrecht, the Netherlands



**Kristi Jauregi-Ondarra** is an associate professor at Utrecht University (the Netherlands) and a member of the "Language Education" research group at UiL-OTS (Utrecht University). Her main area of research is on Computer-Assisted Language Learning (CALL). She is particularly interested in studying how meaningful implementation of Virtual Exchanges, or Telecollaboration projects, can play a crucial role in enhancing students' intercultural language learning processes, and in transforming teachers' pedagogical approaches to foreign language teaching. Her recent focus of study centers on the impact cutting-edge technologies (immersive Virtual Reality and Augmented Reality) and digital games have on intercultural language learning processes. She has initiated and coordinated innovative European projects (TeCoLa, TILA & NIFLAR) since 2005. From 2022 to 2025 she will lead the European E-LIVE project (Engaging Languages for Intercultural Virtual Exchange) in close collaboration with the universities of Valencia and Clermont-Ferrand, and secondary schools (El Quint and Nuenen college). She has published extensively on CALL relevant issues with a special focus on intercultural language teaching and learning. (<https://www.uu.nl/staff/MKJauregiOndarra/Research%20output>).

## Christopher Jenks

Professor, Utrecht University, Utrecht, the Netherlands



**Christopher Jenks** is a discourse analyst and intercultural communication scholar. He is a professor and chair of intercultural communication at Utrecht University. Christopher has also worked in the United States, England, South Korea, Hong Kong, and Denmark. He is the author and editor of nine books and has three more coming in 2023 and 2024. Christopher has published extensively in numerous international journals on topics ranging from family mediation to computer-mediated communication.

# Network Partners



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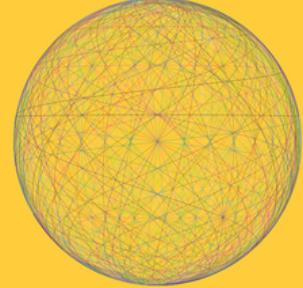


 Thirty-First International Conference on Learning

**The Converging Challenges for Inclusive Education:**  
Intercultural Competences and Digital Literacies in Global Contexts

 UTRECHT UNIVERSITY, UTRECHT, NETHERLANDS

10-12 JULY 2024



## The Converging Challenges for Inclusive Education: Intercultural Competences and Digital Literacies in Global Contexts

The first focal point of this conference is the cultivation of intercultural competences. As our societies become more diverse and interconnected, educators are tasked with preparing students to thrive in multicultural environments.

Participants will delve into strategies for fostering empathy, communication skills, and cultural sensitivity among students, equipping them to engage constructively in diverse communities.

The second central theme revolves around the critical role of digital literacies in contemporary education. Rapid technological advancements continually reshape our learning environments. The conference will explore ways to harness digital tools and platforms to enhance pedagogical practices, promote digital citizenship, and ensure equitable access to education.

Throughout the conference, attendees will have the opportunity to engage with leading scholars, practitioners, and policymakers from around the world. Together, we will examine best practices, share research findings, and engage in thought-provoking discussions aimed at shaping the future of inclusive education.

Key topics to be covered include:

1. Strategies for integrating intercultural competences into curricula.
  2. Leveraging technology to foster inclusive classrooms and digital equity.
  3. Innovative pedagogical approaches for cultivating intercultural awareness.
  4. Assessing and evaluating intercultural competences and digital literacies.
  
  5. Policy implications and recommendations for promoting inclusive education on a global scale.
- We invite educators, researchers, policymakers, and advocates to join us in this exploration of the converging challenges facing inclusive education. Together, we will forge a path toward a more inclusive, culturally responsive, and digitally literate educational landscape, ensuring that all learners are prepared to thrive in our increasingly interconnected world.

# Plenary Speakers



## Ciara R. Wigham

Senior Lecturer in English Language Teaching and Didactics, Université Clermont Auvergne, France



### "Engaging Languages in Intercultural Virtual Exchange"

**Ciara R. Wigham** is a Senior Lecturer in English Language Teaching and Didactics at Université Clermont Auvergne, France. She teaches on the English language teaching Master's programme and on the pedagogical engineering and digital tools track within the Master's in Education programme. Her main area of research is Computer-Assisted Language Learning (CALL). She is particularly interested in studying multimodal pedagogical communication in online language learning-teaching, teacher education in computer-assisted language learning, and methodologies for structuring interactions from online learning situations into multimodal CMC corpora. She recently published a co-authored book focusing on instruction giving in online language lessons (Satar & Wigham, 2023) and is currently involved in the European E-LIVE project (Engaging Languages for Intercultural Virtual Exchange). She is a permanent member of the the Acté research laboratory Activité, Connaissance, Transmission, Education) and has published extensively on CALL.

## Ana Gimeno

Full Professor of English Language, Universitat Politècnica de València (UPV), Spain



### "¿La digitalización de verdad nos lleva hacia la inclusividad y la democratización de la enseñanza o es una utopía?"

**Ana Gimeno** es Profesora Titular de Lengua Inglesa en el Departamento de Lingüística Aplicada de la Universitat Politècnica de València (UPV), España. Su investigación se centra en el inglés para fines específicos, el aprendizaje de idiomas asistido por ordenador y el aprendizaje integrado de contenidos y lenguas. La profesora Gimeno dirige el grupo de investigación CAMILLE, dedicado a la investigación en CALL y e-Learning. Ha sido Directora de Proyecto de varios proyectos multimedia financiados de investigación y desarrollo de CALL que han dado lugar a la publicación de varios cursos de idiomas en formato digital. En 2016, fue coautora del primer Curso Online Masivo y Abierto (MOOC) de español como lengua extranjera impartido en la plataforma estadounidense edX, que ha atraído a más de medio millón de alumnos de todo el mundo y en 2018 publicó el primer MOOC edX de inglés de nivel intermedio alto, que ha atraído a más de 350000 alumnos. Ana Gimeno es editora asociada de ReCALL (Cambridge University Press) y forma parte del consejo editorial de Computer Assisted Language Learning Journal (Taylor and Francis), además de ser redactora jefe de The EUROCALL Review. Fue Presidenta de la Asociación Europea para el Aprendizaje de Lenguas Asistido por Ordenador (EuroCALL) de 2005 a 2011 y actualmente es Presidenta de la organización mundial para el aprendizaje de lenguas asistido por ordenador, WorldCALL.

# Plenary Speakers



## Melinda Dooly

Full Professor, Department of Language & Literature Education and Social Science Education, Autonomous University of Barcelona, Spain



### "Empowering Tomorrow: Nurturing an Inclusive, Digitally Literate Educational Landscape"

**Dr. Melinda Dooly** is Full Professor in the Department of Language & Literature Education and Social Science Education at the Universitat Autònoma de Barcelona. Her principal research addresses technology-enhanced project-based language learning, intercultural communication and 21st century competences in teacher education. She has published widely in international journals and authored chapters and books in this area of study. She is the former (and founding) editor of Bellaterra Journal of Teaching & Learning Language & Literature and co-editor of the book series Telecollaboration in Education (Peter Lang). She is lead researcher of GREIP: Grup de Recerca en Educació, Interacció i Plurilingüisme (Research Centre for Education, Interaction & Plurilingualism). Her current research interests are in the use of Augmented and Virtual Reality in teaching and learning, in particular with young learners.

## Wouter van Joolingen

Professor of Science and Mathematics Education, Freudenthal Institute, Utrecht University, the Netherlands



### "Computational Thinking and Modeling in and beyond Science Education"

**Wouter van Joolingen** is a professor of science and mathematics education at the Freudenthal Institute, Utrecht University. His work focuses on teaching and learning science, including the development of scientific literacy and scientific thinking. Examples are modeling, systems' thinking and mechanistic reasoning. Prominent in his work is the application of digital technology in support of inquiry-based learning and modeling. These applications include computer simulations, modeling tools, as well as augmented and virtual reality. Central is the alignment of human and computer-based instruction with the envisaged learning process. Recent projects include the application of Lesson Study as a means to engage teachers in the design process of science education. In such settings, teams of teachers design lessons together with researchers based on theoretical and practical insight. When teaching the lesson, the focus is on student learning. This approach both leads to deep insights into student learning and improves inclusion as students' individual needs surface in the observations. Wouter has applied Lesson Study in multiple studies, including those into systems thinking, model-based reasoning and sustainability education. In Wouter's view, teachers are always also researchers of their teaching.

# Plenary Speakers



## Mary Kalantzis

College of Education, University of Illinois, Urbana-Champaign, IL, United States



### "Generative AI: Implications and Applications for Education"

**Mary Kalantzis** was dean of the College of Education at the University of Illinois, Urbana-Champaign, United States from 2006 to 2016. Before this, she was dean of the Faculty of Education, Language and Community Services at RMIT University, Melbourne, Australia, and president of the Australian Council of Deans of Education. With Bill Cope, she has co-authored or co-edited: New Learning: Elements of a Science of Education, Cambridge University Press, 2008 (2nd edition, 2012); Ubiquitous Learning, University of Illinois Press, 2009; Towards a Semantic Web: Connecting Knowledge in Academic Research, Elsevier, 2009; Literacies, Cambridge University Press 2012 (2nd edition, 2016); A Pedagogy of Multiliteracies, Palgrave, 2016; and e-Learning Ecologies, Routledge, 2016.

## Bill Cope

College of Education, University of Illinois, Urbana-Champaign, IL, United States



### "Generative AI: Implications and Applications for Education"

**Bill Cope** is a professor in the Department of Education Policy, Organization & Leadership at the University of Illinois, Urbana-Champaign. He and Mary Kalantzis are directors of Common Ground Research Networks, a not-for-profit organization developing and applying new publishing technologies. His research interests include theories and practices of pedagogy, cultural and linguistic diversity, and new technologies of representation and communication. His and Kalantzis' recent research has focused on the development of digital writing and assessment technologies, with the support of a number of major grants from the US Department of Education, the Bill and Melinda Gates Foundation, and the National Science Foundation. The result has been Scholar, a multi-modal writing and assessment environment.

# Emerging Scholars



Each year a small number of Emerging Scholar Awards are given to outstanding early-career scholars or graduate students. Here are our 2024 Emerging Scholar Award Winners.

**Patrícia Ferreira**

Escola Superior de Educação do  
Instituto Politécnico do Porto, Portugal



**Helena Andrade Mendonça**

USP University of São Paulo  
Brazil, Brazil



**Lola Costa Gálvez**

Open University of Catalonia  
(UOC), Spain



**Serah Kivuti**

University of Wisconsin- Madison,  
USA



**Maggie Velasco**

University of St Thomas, USA



**Jackie Thompson**

University of Toledo, USA



**Marci Levy-Maguire**

University of St. Thomas, USA



**Julie Williams**

University of St. Thomas, USA



**Evguenia Iskra**

University of Illinois at Urbana  
Champaign, USA



# Emerging Scholars



**Jennifer Reichel**

University of St. Thomas, USA



**Mária Laczkó**

Deák Ferenc Secondary Grammar  
School of Kispest, Hungary



**Tracy Bonoffski**

UNC Charlotte, USA



**Jaddy Brigitte Nielsen Nino**

Nebrija University, Spain



**Alexánder Ramírez**

Universidad del Valle, Colombia



**Melissa Švigelj**

James Madison University, USA



**Belén González-Laguillo**

Universidad Complutense de  
Madrid, Spain



**Charity Okeke**

University of the Free State,  
South Africa



**Zenia Chan**

University of Cambridge, UK





## Eva Erber

Rutgers University, Graduate Student  
(German Studies), United States



## Vivaldi Chung

University of Cambridge, UK



# **Presentations, Presenters, Participants**

# **2024 Special Focus—The Converging Challenges for Inclusive Education: Intercultural Competences and Digital Literacies in Global Contexts**

## **On Cyber-social Learning: How to Value the Human in Computational Systems**

**Rodrigo Abrantes da Silva, University of São Paulo, São Paulo, Brazil**

This paper explores the concept of cyber-social learning, emphasizing the integration of cybernetic and pedagogical principles in educational technology. The term "cyber-social" encompasses both cybernetics and the social nature of learning, highlighting the interplay between human and machine intelligence. Drawing from historical perspectives, the study discusses cybernetic principles and their potential application in reshaping educational paradigms. It presents examples from the Cyber-Social Learning Laboratory research group, illustrating the benefits of decentralized, heterarchical systems. Furthermore, the study introduces a learning analytics system as an example of applying cybernetic principles in formal education. The system utilizes recursive feedback mechanisms to enhance human feedback, providing visual representations of students' progress. The cyber-social environment created by this system encourages self-regulation and collaboration, fostering a learning dynamic that supports individual paths within a community context. In conclusion, the paper highlights the transformative potential of the cyber-social learning approach, challenging traditional education models. It raises pertinent questions about the relevance of current educational practices in the digital age and calls for a reimagination of education to meet the needs of a technologically evolving society. The integration of cybernetic principles offers a promising avenue for creating effective and adaptive learning experiences in the future.

# 2024 Special Focus

## **Exploring Teachers' Knowledge and Attitudes about Inclusion of Hard of Hearing Students in Two Elementary Schools in the United States and Saudi Arabia**

**Khalid Alasim, Associate Professor, Special Education, Prince Sattam Bin Abdulaziz University, Saudi Arabia**

With the increasing number of deaf and hard-of-hearing students in local public schools in the United States (US) and Saudi Arabia (KSA), attitude and knowledge have been identified as one of the most important factors influencing the roles of teachers in inclusive classrooms (Saudi Ministry of Education, 2012; U.S. Department of Education, 2013). This study explored teachers' knowledge and attitudes about the inclusive education of hard-of-hearing students in two elementary schools in the US and KSA. Data was collected through semi-structured interviews and classroom observation. Two themes emerged including: 1) teachers' knowledge and understanding of teaching hard-of-hearing students and the inclusive education process; and 2) factors related to teachers' attitudes.

## **Culture, Community, and Inclusion: Connecting with Self and Society through the Creation and Exploration of Extended Reality Spaces**

**Shadow Armfield, Associate Dean, College of Education, Northern Arizona University, Arizona, United States**

**Dawn Armfield, Associate Professor, English, Minnesota State University, Mankato, Minnesota, United States**

Educators have opportunities to encourage students to immerse themselves in virtual spaces that are currently inaccessible in "real time or space" as well as the ability to create those experiences for others. This paper provides an understanding of the integration of extended realities (XR) in the classroom setting and an in-depth discussion of how these technologies can provide students with learning experiences and content creations of cultural understandings, cultural identity, and self-representation within immersive environments. In addition, this study contains the experiences of working with students from diverse courses to understand inclusion, universal design, and reflective encounters within XR. It explores the experiences the authors have had using the technologies in their classrooms, including representations of actual artifacts created by students and the measures of incorporating the development of XR spaces as a part of learning and assessment within interdisciplinary programs at the university level. Finally, this paper discusses research the authors are working on within a high school transition-to-work program with high school teachers, teacher candidates, and young adults with intellectual disabilities who are transitioning from high school to work. In this research, students created XR "how-tos" for access to public transportation and work environments/experiences. Through these spaces, students reflect on community exploration, their roles within their communities, and their agency in the use of public services. This paper illustrates a future of inclusionary educational practices using XR with students within and beyond the classroom.

# 2024 Special Focus

## **Community Connections in a Digital World: Learning Communities, Community Engagement, and Micro-credentials**

**Tracy Bonoffski, Faculty/Learning Community Coordinator/Academic Advisor, Applied Physiology, Health and Clinical Sciences, University of North Carolina at Charlotte, North Carolina, United States**

This project focuses on a learning community for first-year students at a large, urban university in the US that has a community engagement theme. The learning community offers students an opportunity to earn a community engagement micro-credential that is designed highlight specific skills and competencies, including: cultural awareness, civic engagement, community based research, innovation and entrepreneurship. This high impact program is designed to model the idea that giving back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life. Students within this learning community have the opportunity to not only mold their professional trajectory with an academic major or minor, but also through the completion of micro-credentials. Micro-credentials are short, competency-based pathways that provide students with recognition and demonstrate mastery in intentionally, focused area(s). The integration of micro-credential pathways are meant to be personalized, flexible, and performance-based so that learning community students have a marketable quality to share with future employers and graduate programs. These students are earning a community engagement micro-credential designed to increase cultural awareness and collaborate with diverse populations.

## **Ways of Coping as Predictors of Job Satisfaction, Performance, and Career Achievement of Teachers**

**Evangeline Dazo, Assistant Professor, Education Department, Bulacan State University, Philippines**

The purpose of the study was to determine teachers' coping strategies and to investigate its effects on their job performance, satisfaction and career achievement. A total of 70 college teachers who have experienced teaching during the 2 year period of pandemic were asked about their Profile, Ways of Coping, Job Satisfaction and performance at the end of the second semester of School Year 2022. These forms provided data about the characteristics and main coping strategies (problem focused coping, wishful thinking, distancing, seeking social support, emphasizing the positive, self blame, tension reduction and self-isolation). The standard teaching performance evaluation results were used and analyzed. Results showed no profile variable was related to coping strategy, majority of teachers adopted problem-focused coping which positively correlated with performance, personal growth and career achievement, whereas emotion-focused coping showed the same correlation negatively. In conclusion, a main coping strategy may be helpful to predict teacher job performance and career achievement. Determining undesired coping strategies may provide an opportunity for intervention to prevent relevant dissatisfaction and failure.

# 2024 Special Focus

## **Curriculum and Pedagogy in STEM Education: Developing Teacher Candidates' Technological Literacy and Inclusive Practices**

**Isha DeCoito, Associate Professor, Faculty of Education/Faculty of Science, Western University, Canada  
Mohammed Estaiteyeh, Assistant Professor, Faculty of Education, Brock University, Ontario, Canada**

In this paper, the authors detail a STEM education course enriched with digital technologies, which concurrently focused on principles of equity, diversity, and inclusion (EDI). The course is entitled Curriculum and Pedagogy in STEM Education and is offered to teacher candidates (TCs) in a teacher education program at a Canadian university. The course engages TCs in curriculum development while promoting reflective practice, collaborative learning, and scientific and technological literacies. The course was initially developed and enriched with digital resources and assignments focusing on digital case studies, curriculum websites, digital timelines, and digital video games. Furthermore, to ensure that TCs are trained on inclusive practices, the course integrated EDI principles throughout all assignments, seminars and resources using an explicit and reflective approach. As an example of inclusive practices, tailored tasks requiring the application of differentiated instruction were included. The authors present their reflections on the course development and share findings on the impact of the course derived from data analysis of quantitative (pre-and post-surveys) and qualitative data (coursework) collected from TCs. This research advances knowledge on teacher preparation in online teaching and inclusive education. It demonstrates the impact of digital pedagogies on TCs' technological literacy as well as their engagement with EDI principles.

## **Inclusive Hospitality in Teaching and Learning: Design, Deliver, and Discover**

**Brad Garner, Digital Learning Scholar in Residence, Academic Innovation, Indiana Wesleyan University, Michigan, United States**

Today's college students face many challenging circumstances, unlike any previous generation. In addition to the usual angst of beginning college, students face a backdrop of social justice issues, a pandemic illness, financial instability, and the pressures of leveraging their diplomas to pursue employment and personal goals and dreams. In this context, faculty can play a crucial role in helping students transition into higher education effectively, personalize their learning, and offer a listening ear to work through challenges and uncertainties. This workshop focuses on developing inclusive and hospitable learning environments, empathic teaching, and a forum for difficult topics of conversation. In addition to the conversations during this session, participants will also be provided with a collection of digital resources focusing on inclusion and hospitality in higher education.

# 2024 Special Focus

## **The Impact of Culture on Reflective Practice in the International Classroom: A Case Study Exploring the Experiences of Nigerian Students Studying Reflective Practice at a UK University**

**Catherine Glaister, Senior Lecturer, Leeds Business School, Leeds Beckett University, Leeds, United Kingdom**

Whilst acknowledged as an important intercultural competence, there is little academic literature exploring the impact of national culture on student engagement with reflective practice. Exploring the experiences of Postgraduate Nigerian students, this study aims to understand the impact of Nigerian culture on students' experiences of reflective learning, thus contributing to theory and literature, as well as identifying enhanced approaches to teaching and learning. The study was undertaken jointly by two academic colleagues, one a cultural outsider from the UK who is teaching on the programme, and one a cultural insider of Nigerian origin. Fifteen, in-depth semi-structured interviews were conducted, and thematic analysis undertaken, with themes emerging around the novelty of formal reflective practice; impact; self awareness and identity; gender; religion; ethnicity; power; class and collectivism. Results show that engagement with formal reflection on action was a new concept for students, which as a primarily individualistic process, presented real challenges to students embedded in collectivist cultures. Issues around power and hierarchy emerged as barriers to criticality and engagement in reflection, along with impacts associated with gender and religion. Whilst students reported initial struggles, as they progressed the impact on their learning and their lives was felt to be significant, with some students reporting transformative learning and deep personal growth, moving beyond superficial levels of learning often reported by home students. This holds implications for both teaching and learning strategies for use in international contexts, as well as highlighting potential for integrating reflective practice into the Nigerian system.

# 2024 Special Focus

## **Empowering Teacher Candidates of Mexican Descent: Adapting Artificial Intelligence for Science of Teaching Reading in the Southwestern United States**

**Heriberto Godina, Assistant Professor of Curriculum and Instruction, Educational Programs; Literacy and Bilingual Education, Texas A&M International University, Texas, United States**

The present study examines teacher-candidate preparation in the Southwestern United States, and how AI usage can be adapted and shared for optimal learning outcomes in a manner that maintains academic integrity and intercultural competencies for learning among historically stigmatized minorities. Participants for this study include teacher candidates of Mexican descent enrolled in literacy education classes and preparing for the Science of Teaching Reading examination as a requirement for teacher certification. The present study takes place along the border between Mexico and the United States in the Laredo region. Public-school performance in literacy has been in decline post-covid quarantine among the mostly Hispanic/Mexican American public-school population. The need for professionally trained and knowledgeable literacy teachers to address the present literacy crisis has never been greater. Data collection is ongoing and implements reflective narratives and assignment artifacts as exemplars used to illustrate and examine how AI usage is influencing teacher candidates. Initial results reveal how participants share mixed attitudes about AI usage. The present study examines how AI can be adapted for successful retrieval of lesson plans that correlate with Texas state standards for instruction and for scholarly teacher articles pertinent to Science of Teaching Reading. In contrast, teacher candidates engage innovative assignments that purposefully circumvent the use of AI as a substitute for practical knowledge and skills related to teacher-candidate preparation. Educators who seek to examine innovative applications for AI usage among culturally-diverse populations should be interested in this study.

## **Teaching Mathematics to All Learners by Tapping into Indigenous Legends: A Pathway towards Inclusive Education**

**Nahid Golafshani, Professor, Faculty of Education, Laurentian University, Ontario, Canada**

This pilot studies explores the use of storytelling in the planning and teaching of mathematical content and the possibility to create learning opportunities that are authentic to Indigenous learners and those of diverse backgrounds. In collaboration with Indigenous and non-Indigenous educators, mathematical lessons were developed, implemented and reviewed in an elementary school located in Northern Ontario. The result of this pilot study is the positive effects that such culturally inclusive lessons have on both the learners and the educators, creating learning opportunities mathematically, culturally and personal growth that was not initially seen. This pilot study combined a culturally authentic approach to teaching with the current educational issue of diversity and resulted in finding the endless application of storytelling. Storytelling can allow students to relate and understand abstract mathematical concepts, expose students to diverse cultures and foster a positive and open learning environment. This pilot study demonstrates a practical example of integrating cultural diversity into mathematics, which is a method that can be replicated to various subject matter and grade levels.

# 2024 Special Focus

## **Intercultural Communication in the US Classroom: A Russian Professor's Perspective**

**Marina Gorlach, Professor of Linguistics, English, MSU Denver, Colorado, United States**

This paper discusses some aspects of intercultural communication in academic settings reflecting the linguistic and cultural differences between Russian and American speakers of English. It examines cultural variation in classroom discourse and the role of verbal and non-verbal patterns in teacher-student communication. Russian professors teaching in the US universities encounter numerous intercultural distinctions in communication, from different terms of address and lack of the tu/vous distinction to dissimilar ways of expressing requests, asking questions, and wording negative answers. The 'directness' of Russian is sometimes interpreted as 'rudeness' by American students, while the American tendency to use understatements impresses Russian professors as vagueness, ambiguity, and lack of accuracy. Avoiding categorical statements or absolute claims is natural for American students, but alien for Eastern European professors. The subtle distinction in the degree of assertiveness can become a source of confusion not only in a classroom conversation, but also in the way lectures are presented, assignments are formulated, textbooks are evaluated, and student papers are assessed. Intercultural communication is further affected by the different perception of the teacher's role, the amount and nature of teacher-student verbal interaction, turn-taking rule, length of individual contributions, etc. I discuss the intercultural differences in applying politeness/directness discourse strategies drawing on the observation of class discussions and the analysis of the surveys filled out by students.

# 2024 Special Focus

## **COVID-19 Impacts on Study Abroad and Student International Exchange: Longitudinal Perspectives from Austria, Germany, and the United States**

**Anna Hammersmith, Associate Professor, Sociology, Grand Valley State University, Michigan, United States**

**Petra Aigner, Associate Professor, Sociology, Johannes Kepler University Linz, Austria**

The COVID-19 pandemic severely disrupted study abroad and international student exchange programs. During the pandemic, study abroad programs were canceled or modified to remain in compliance with pandemic safety measures. Although COVID-19 is no longer considered a global health emergency, the pandemic will likely have long-term ramifications that continue to reshape study abroad and international exchange. To explore the impacts of the pandemic on study abroad and international exchange, this study asks two questions. How did the pandemic impact study abroad and international student exchange by social context, if at all? And, how did pandemic responses and subsequent changes to study abroad and international exchange differ, based on social context? To explore these research questions, semi-structured interviews were conducted with undergraduate students as well as university faculty and administrators in research projects at Johannes Kepler University (JKU) in Austria ( $n = 17$ ), the University of EducaMon Schwäbisch Gmünd (PHSG) in Germany ( $n = 9$ ), and Grand Valley State University (GVSU) in the USA ( $n = 11$ ). Key themes emerging from initial interviews include how uncertainty impacted student decision-making related to study abroad, the emergence of digitalization and e-learning opportunities, as well as flexible models of study abroad and international exchange. Findings will inform universities, administrators, and other stakeholders of new, emerging trends related to study abroad and international exchange that have arisen following the pandemic.

## **A School Librarian Needs Assessment on Culturally Responsive and Impactful K-12 Online Teaching and Learning**

**Melissa Johnston, Professor, College of Education, University of West Georgia, Georgia, United States**

There is a lack of research that examines school library education, professional development, or application of culturally responsive pedagogy in K-12 online settings. This research study investigates the characteristics of the school librarianship knowledge gap on culturally responsive online pedagogy through needs assessment research. This presentation shares findings from the first phase of a research grant project to examine, assess, and address the school librarianship knowledge gap on the design and delivery of targeted and culturally responsive online learning. Data was collected utilizing national online webinars as online discussion groups. Inductive thematic analysis was performed to identify patterns (themes) within data. Findings indicate that school librarians are familiar with culturally responsive pedagogy, yet they struggle to translate it into implementation. Additionally, confusion between technology integration and tech-enabled learning exacerbates the knowledge gap on culturally responsive pedagogy. The findings from this needs assessment research will drive the creation of training for school librarians to address this knowledge gap. Implications for practice, school library education preparation programs, and research are discussed.

# 2024 Special Focus

## Digital Literacy in the Age of Disinformation: Preparing Future Teachers to Support Student Learning

**Carol Doyle Jones, Associate Professor & Department Chair, College of Education, Niagara University, Ontario, Canada**

**Debbie Mc Cleary, Assistant Professor, College of Education, Niagara University, Canada**

**Laura Hermans Nymark, Assistant Professor, College of Education, Niagara University, Ontario, Canada**

Digital literacy is a vital skill for teacher candidates to develop and incorporate into their pedagogy. Research has shown that people with low digital literacy are challenged in discerning between legitimate and fake news and has revealed that a high percentage of students access news through social media platforms, creating challenges for assessing information correctly. As teacher educators at a Canadian university we wondered, what is the digital literacy of our future teachers? What are the implications of our teacher candidates' digital literacy skills in their roles as teachers? Informed by Evanson & Sponsel's (2019) study, we have surveyed four classes of teacher candidates to gain insight into their news and social site use, their understanding of how fake news impacts themselves and society, and how they are able to evaluate stories of information as being truthful or fake. We present the survey results and our initial work with the teacher candidates, post-survey. This post-survey work features participants from three classrooms in literacy-based courses with educational opportunities centering on how the teacher candidates can be responsive to teaching digital literacy. Implications focus on how teacher candidates incorporate their learnings and teaching resources to foster digital literacy among themselves and their students.

## Collaborative Online International Learning in Chemistry Classes at College and High School Levels

**Supaporn Kradtap Hartwell, Professor, Chemistry, Xavier University - Cincinnati, OH, Ohio, United States**

**Leslie Porter, Chemistry Teacher, Science, Purcell Marian High School, Ohio, United States**

**Pattama Yanu, Chemistry teacher, Faculty of Education, Chiang Mai University Demonstration School, Thailand**

**Kanchana Watla lad, Chemistry lecturer, School of Science, Mae Fah Luang University, Chiang Rai, Thailand**

Intercultural competencies and ability to work with team members from diverse backgrounds are important skills in many lines of work including STEM fields. Despite its importance, inclusion of cultural topics in science classes is rare and has often been viewed as "out of context." Students usually gain these experiences from study abroad programs. However, such learning opportunities are not available for all students due to barriers such as financial, time, rigid curriculum, and safety issues. Internationalization at home is a way to globalize the classroom and give students intercultural working experience at low to no cost. Here, collaborative assignments used in chemistry classrooms to connect US and Thai students and engage them in chemistry topics are presented. Best practices and points to consider when implementing the strategies based on perspectives of students and class instructors at college and at high school levels are discussed.

# 2024 Special Focus

## **Growing Through Connection: A Phenomenological Study of High School Cultural Immersion Programs**

**Melissa Livermore, Adjunct Professor, Education, University of St Thomas, Minnesota, United States**

This phenomenological study examined how alums made meaning of their cultural immersion programs during high school. I selected 10 participants (five men and five women) who graduated from a Midwest private high school between 2012 and 2021 and attended at least one of the Guatemala or Ethiopia immersion programs between 2012 and 2019. Data collection comprised surveys, semi-structured interviews, artifacts, and researcher's notes. The first theme generated by data analysis revealed participants' motivations to join the programs. The second theme indicated that while abroad, participants experienced discomfort before overcoming communication challenges and appreciating the host culture. The third theme showed the enduring effects of the programs. Contact theory explained the role of personal interactions participants develop during their cultural immersion programs. Intercultural competency theory helped analyze participants' intercultural competency development. The findings of this study indicate personal contact is an essential element. Also, study abroad programs increase participants' intercultural competency skills. School leaders should encourage high school students to participate in at least one immersion experience. Future research should expand on this study to understand how differences in identity, such as race and gender, affect individuals' cultural immersion experiences.

## **Culturally Responsive Teaching and Practices in Online Learning Environments**

**Sepideh Mahani, Associate Dean & Chair of Education Leadership, Education, Yorkville University, New Brunswick, Canada**

The principles of culturally relevant pedagogy, suggests, in order to promote a more nurturing learning experience, educators must ensure they offer opportunities for students to connect their cultural backgrounds to the content. As a racial minority educator, one of the greatest outcomes of becoming an educator has been experiencing a sense of empowerment when I teach and assess my students through culturally relevant and responsive pedagogy. Growing up in Canada as a young Iranian girl, I often struggled to identify myself in the curriculum, an educational experience that I often refer to as an education without mirrors, and that impact even extended into my life as a graduate student. Today, as an educator, I have made it a priority to provide my students with opportunities to tap into their diverse cultural backgrounds and use their lived experiences as a bridge to make sense of the content they are learning. Despite the prevalence of online learning in higher education, there is limited literature about what constitutes effective culturally relevant and responsive online teaching. While online education has revolutionized learning by increasing educational access and opportunities to students, it has also led to an increase in classroom diversity, leaving instructors to struggle with how to create and foster a culturally relevant and responsive learning environment. As an online educator who teaches graduate-level education courses, I reflect on my practices that focus on diversity, equity, and social justice and discuss how online educators can engage in culturally relevant and responsive pedagogy.

# 2024 Special Focus

## The Contribution of a Project Towards Quality Education In Rural Primary Schools

**Matlala Makokotlela, Senior Lecturer, Environmental Sustainability/Science and Technology Education, University of South Africa, Gauteng, South Africa**

Quality education in primary schools has become a matter of interest. The sustainable Development Goal number four is centred around quality education to safeguard inclusivity, equitable quality education while promoting lifelong learning opportunities for all. This includes learners from various backgrounds such disadvantaged to advantaged environments. Worldwide countries have set a timeframe for all the learners to have gained knowledge and acquired necessary skills to advance sustainable lifestyles through education for sustainability. This qualitative case study used an interpretive paradigm and social constructivism theory to explore how learners receive quality education for quality life in a non-quality primary school setting in one of the South African provinces. Participants were purposively selected. Data were collected through interviews and observations. Data were thematically analysed and interpreted, thus yielding relevant themes that helped to reveal findings. The findings revealed that the learners received quality education through a project. It assisted the learners to acquire knowledge and skills with planting vegetables, vegetables augmented the National School Nutrition Programme, benefitted stakeholders, raised funds for the school, and attracted donations and later adoption. Challenges were that primary school learners are young to engage fully in activities that would practically afford them the opportunity to gain more knowledge and skills to sustain their lives. This study will provide a conclusion and recommendations in the area of quality education for all.

## Meeting the Challenges of a Globalized World by Building an Entrepreneurial Mindset

**Katia Moles, Student, BA, Santa Clara University, CA, United States  
Laura Robinson, Student/Professor Team, Sociology, SCU, California, United States**

Our study examines innovative, inclusive pedagogies that educators can use to harness an Entrepreneurial Mindset. We show how students who internalize an Entrepreneurial Mindset grow into changemakers who address social problems in an increasingly globalized and digital world. These pedagogies speak to the educational needs of Gen Z students who are eager to make connections between their educational experiences and the social challenges they see around them. The research is multidisciplinary and analyzes a primary data set to explore how students participating in curated pedagogies based on the Entrepreneurial Mindset grow to see themselves as changemakers. Using a mixed-method approach, our data shows how educational interventions can increase students' ability to: solve problems, incorporate constructive feedback into solutions, flexibly adapt with limited resources, and work in teams to address problems collectively. Our data analysis informs the development of pedagogies to curate strategies that inculcate an Entrepreneurial Mindset across the curriculum. The results inform pedagogical practices that fortify students' self-confidence as changemakers who take entrepreneurial approaches to meet challenges of inclusion while valuing intercultural competency. Drawing on our analysis, we speak to opportunities in different university educational settings that prepare university students to engage with the globalizing world around them thanks to the inculcation of an Entrepreneurial Mindset.

# 2024 Special Focus

## **Instructional Strategy as an Effective Tool to Teach How to Read**

**Jaddy Brigitte Nielsen Nino, Researcher, FUNIFELT, United States**

Using effective instructional strategies facilitates learning. It helps the instructor or teacher to understand how does it work and how to use consistently and often during the instructional section. This study is based on reading comprehension theory and the steps that we as teachers have to take into account when we are teaching a language. The study is focused on bilingual students who are from Latin America and the Caribbean and live in North America learning English in District schools. Some aspects of this method can be applied in other languages like Spanish, Dutch or French (Germanic and Romance Languages).

## **Cognitive Fitness to Science Academic Performance**

**Marita Parobrob, Campus Dean/ Associate Professor, Education, Bulacan State University, Bulacan, Philippines**

This study aims to determine the influence of cognitive fitness on students' academic performance in science, particularly in selected topics in Mechanics. The respondents of the study involved 80 students in the Teacher Education program who were selected through purposive sampling. Pre-test and post-test were applied to gather data measuring the students' academic performance before and after engaging in cognitive activities. Cognitive fitness activities were identified effective including musical and simulation games activities. The pedagogical implications of the study suggest that teachers can integrate localized fitness based in their classroom instruction to create an engaging and stimulating learning process and design evidence-based interventions that can help enhance the students' cognitive fitness and academic performance. Results show that the importance of developing cognitive fitness activities tailored to students' specific needs and characteristics benefit students, teachers and program heads in the teaching-learning process.

# 2024 Special Focus

## **Intercultural Language Teaching in a Foreign Language Teacher Education Program: Redesigning Curriculum in a Colombian University**

**Alexander Ramirez Espinosa, Professor, School of Language Sciences, Universidad del Valle, Valle del Cauca, Colombia**

This paper shares some preliminary results of a doctoral dissertation aimed at infusing an intercultural perspective in the curriculum of a Foreign Languages Teacher Education Program in Colombia. Current discourse about internationalization in higher education often use intercultural communication as a market-driven objective that can be solely met in establishing academic interchanges abroad, and through a foreign language. The research (a single-case study) started with establishing the faculty's perceptions about curricular strengths, weakness and opportunities to develop an intercultural orientation in language teaching. Similarly, official documents and policies were analysed to ponder the same aspects. Finally, a Professional Learning Program was designed and conducted with faculty to jointly work on the renovation of the program curriculum. The study shows that interculturality is usually seen as a result of contact between foreign countries and languages, a vision often caused by market-driven discourses in higher education. However, the multilingualism, multic平tularity, and the development of multiple identities that take place on campus constitute a rich and complex landscape of assets that can be utilized to foster intercultural competencies as well. Similarly, the study suggests that while intercultural aspects are deemed as paramount in language teaching, the faculty might lack conceptual understanding around interculturality, which hinders their good intentions to promote intercultural language teaching.

## **Service-Learning and the Development of Students' Intercultural Sensitivity in Higher Education: Differences Based on Service-Learning and Non-Service-Learning Teaching**

**Rosa María Rodríguez Izquierdo, Professor, Education and Social Psychology, University Pablo de Olavide, Sevilla, Spain**

Many higher education institutions aim to promote intercultural sensibility in their students. However, most research has focused on the content of educational programs (what educators offer) rather than on pedagogical methodologies to assist students experience intercultural learning. This study fills this gap by examining the impact that Service Learning (SL) has on the development of students' Intercultural Sensitivity (IS) in Higher Education. The Developmental Model of Intercultural Sensitivity (DMIS) and a quasi-experimental design of repeated measures pretest and posttest, using a comparison group, was implemented to compare two groups of undergraduate students enrolled on the same course, and in two different formats: SL and non-SL. The sample consisted of 233 Higher Education students. Our hypothesis predicted that SL students would report higher levels of IS and the data confirmed this. The results indicate that the students of the two groups are in the minimizing phase and that the posttest scores are higher than the pretest for both groups, although the SL group reveals a significantly higher level in all subscales (reversal, acceptance/adaptation, and encapsulated marginality) with the SL course except in the denial/defence and the minimization stages. These results can guide teachers and administrators to foster SL to promote students' IS.

# 2024 Special Focus

## **Discovery-based Learning at UC Berkeley: Creating Connection For Lower Division University Students in a Diverse Environment**

**Patricia Steenland, Continuing Lecturer, College Writing Programs, University of California, Berkeley, California, United States**

For the past three years, Pat has been the co-lead of the First Step Discovery Project, one of four funded projects of the UC Berkeley Discovery Initiative. The First Step project seeks to transform beginning classes from skills-based requirements into gateway inquiry-based experiences connecting first and second year students with the best and most exciting resources of the university. This paper provides a brief overview of the Discovery Initiative and discusses how this pedagogical approach helps to foster a sense of belonging, both intellectually and socially, at an institution whose student body embodies the diversity of the demographics of the California population. It also features a case study of a student project structured as a Discovery-based learning experience. The case study project was a site-specific installation that also featured a student-created website and multimodal research projects, integrating historical research with digital presentation frameworks.

## **Disability Access and Advocacy in a Post A.I. Environment: The Increasing Need to Merge Analog Accommodation with Virtual Equity**

**John "Jack" Trammell, Professor, Sociology, Criminal Justice, and Human Services, Mount Saint Mary's University, Maryland, United States**

The advent of artificial intelligence has been a corporate boom, but more problematic and uncertain in its emergent roles within education and human services. This session will focus on the practical aspects of using new forms of AI to accommodate people with disabilities; the use of AI to enhance and increase disability advocacy; and a meaningful discussion of a new virtual ethics which should govern AI and disability issues moving forward.

## **Incorporating AI for Inclusion in Distance Education**

**Rhonda Wakelyn, Assistant Professor, Educational Development, UAMS, Arkansas, United States**

We will explore the use of AI for increasing inclusive learning opportunities in the digital classroom for students with disabilities and non-native speaker language barriers. How can this technology benefit students in an online learning environment and improve student achievement and performance in online education and classroom environments today and in the future?

# 2024 Special Focus

## **Multiliteracies, Identity, and Second Language Spanish Learning in a Historically Black College**

**Gabriela C. Zapata, Associate Professor in Education, School of Education, University of Nottingham, United Kingdom**

In her recent survey of existing studies on second language (L2) education and Black/African American students, Anya (2020) posits the need for classroom-based work that will offer information on effective methodologies and curricular content to answer the personal and academic needs of this population of students and counter the negative experiences that have been reported in the literature. This case study seeks to answer this call by investigating the use of open, L2 Spanish materials grounded in the multiliteracies pedagogy Learning by Design (Kalantzis et al., 2016; Zapata, 2022) directly connected to learners' lifeworld in beginning L2 Spanish classes at a Historically Black College in Southern United States. This work was carried out during two academic semesters, and it involved the participation of 67 students. The first source of data was a survey which probed into the participants' perceptions of the instruction received, and their personal connections to the pedagogical resources employed. The multimodal products created by the students constituted the second source of data. First I offer a brief description of the adopted practices and tasks, as well as of the pedagogical framework on which they were based. The second part is devoted to a discussion of the study's results, including the analysis of the responses to the questionnaire and the exploration of learners' artifacts based on Zhang and Yu's (2023) dimensions of digital multimodal composing competence. I conclude with instructional recommendations and suggestions for future research.

# Learning in Higher Education

## The Dynamics of Flexible Teaching: Student-centered Strategies in Hybrid Learning Environments

Ander Alonso-Pastor, Professor and Researcher, Institute of Research and Educational Policies, Universidad Antonio Ruiz De Montoya, Lima, Peru

Maria Alejandra Torres Maldonado, Professor, Universidad Antonio Ruiz de Montoya, Peru

Derek Osain Nicho, Research Assistant, Institute of Research and Educational Policies, Universidad Antonio Ruiz de Montoya, Lima, Peru

This study investigates the dynamics of flexible teaching within hybrid learning environments in higher education, using a sequential mixed-methods approach. A survey with 9,863 student responses was employed to classify teachers into four distinct clusters based on their teaching practices. Follow-up focus groups with these teachers provided insights into their experiences and strategies. The findings emphasize the importance of adaptability and student-centered teaching methods in enhancing educational experiences. Identified challenges include emotional management, interpersonal relationships, and the need for effective use of technology and pedagogical support in hybrid settings.

## Examination of the Profile of Visually Impaired English Language Learners in Higher Education in Oman

Jamila Al Siyabi, Lecturer, Centre for Preparatory Studies, Sultan Qaboos University, Al Batinah, Oman

Inclusion in higher education is one of emerging perspectives in English language teaching and research. Similar to other contexts around the world, inclusive education in the Omani higher education is receiving more attention from practitioners, researchers and institutions. Research in Oman suggests that addressing the learner's skills, interests, strengths and potential difficulties as well as positioning the student's demand to match the 21st century skills are of vital significance to effective language education. It also proposes that initiating support service systems, procedures and innovations in technology and pedagogy can lead to more effective inclusive English language teaching. This paper looks into the concept of the learner profile of the visually impaired in higher education institutions. It explores how establishing a learner profile for this type of learners can promote more effective approaches to inclusive English language and enhance the successful integration of visually impaired students in mainstream English language classrooms. The study draws on findings of a qualitative approach that explored the perceptions and practices of teachers and visually impaired students in inclusive English language teaching setting in a university in Oman, and how aspects relevant to learner profile emerged from the study data analysis. Potential challenges and implications of inclusion in higher education are also discussed.

# Learning in Higher Education

## **Developing Intercultural Competence in Pre-service EFL Teachers through Video-conferencing Exchanges: Preparing the Global Citizen**

**Lena Barrantes Elizondo, Professor, Foreign Languages, Universidad Nacional, Sede Regional Brunca, San José, Costa Rica**

**Karla Granados Valverde, Student, Bachelor Degree, Universidad Nacional, Sede Regional Brunca, San José, Costa Rica**

**Fernando Méndez Zúñiga, Student, Bachelor Degree, Universidad Nacional, Sede Regional Brunca, San José, Costa Rica**

Sustainable Development Objective 4 aims to ensure that all learners acquire the knowledge and skills needed to promote a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and culture's contribution. Looking back at effective instructional strategies implemented during COVID-19, English as a Foreign Language (EFL) teachers could keep transforming learning experiences by developing digital literacies, language skills and culture awareness through videoconferencing exchanges. The purpose of this paper is to share how exchanges of this type resulted in an opportunity to develop intercultural competencies that prepare pre-service EFL teachers to become global citizens by fostering cultural and linguistic diversity. Videoconferencing exchanges brought together EFL pre-service teachers and language learners in geographically distant locations via means of online communication to develop language skills and intercultural competence. Intercultural competence is the ability to develop targeted knowledge, skills and attitudes that lead to visible behavior and communication that are both effective and appropriate in intercultural interactions. To this matter, in this study, pre-service teachers at a public university in Costa Rica share their findings after analysing their experiences as participants in a series of video conferencing exchanges with students in a Canadian university. Using Deardorff's model that frames attitudes, knowledge, skills, internal outcomes and external outcomes as core components, pre-service teachers assessed how this instructional strategy in their EFL Teaching Program provides the opportunity to guide them in their role as members of a large global community and use their skills and education to contribute to that community.

# Learning in Higher Education

## **Analysing Frame Markers in Undergraduate Students' Argumentative Essays: ESL and Native Speaker Corpus**

**Naomi Boakye, Faculty, Unit for Academic Literacy, University of Pretoria, Gauteng, South Africa Jessie Bannerman Wood, Lecturer, Language Centre, University of Ghana, Ghana**

Writing an effective argumentative essay involves the appropriate and effective use of metadiscourse (MD) markers. Metadiscourse refers to linguistic resources that are used to organise a text and connect with readers. Metadiscourse markers comprise hedges, engagement markers, attitude markers, boosters, self-mentions, code glosses, endophoric markers, evidentials, transitions, and frame markers. This study focuses on the identification of frame markers in terms of types, frequency, and appropriate use in argumentative essays written by English as a Second Language (ESL) undergraduate students, as well as native speakers of English at the same level. To analyse the use of frame markers in the essays, 207 argumentative essays were selected from the Louvain Corpus of Native English Student Essays (LOCNESS), and 197 essays from undergraduate students at the University of Ghana were compiled in a corpus. The data were analysed both quantitatively and qualitatively using LancsBox, based on Hyland's (2005) taxonomy of functions (sequencing, labelling stages, and announcing goals). Findings indicated that the ESL learners' argumentative essays were characterised by an overuse of frame markers for sequencing and labelling stages. It was also observed that the two groups of students underused frame markers for announcing goals. The findings of this study may be helpful in the teaching and learning of academic writing.

## **Interdisciplinary Interdialogues in the Research Training of Psychology Initiatives: Legal Psychology, Community Social Psychology and Neurosciences for Undergraduate Research Training**

**Daniel Bonilla Montenegro, Professor, Psychology, Fundación Universitaria del Área Andina, Colombia  
Jorge Moreno, Docente Auxiliar, Programa de Psicología - Facultad de ciencias humanas y sociales,  
Fundación Universitaria del Área Andina, Distrito Capital de Bogotá, Colombia  
Luisa Fernanda Pardo Parra, Docente, Psicología, Fundación Universitaria del Área Andina,  
Cundinamarca, Colombia**

This paper presents a localized experience in the field of formative research from the efforts of different workshops in the field of psychology; accordingly, the relevance of research workshops in the development of research and training skills in different lines of action such as neurosciences, legal psychology and community social psychology is presented. Likewise, work strategies are presented by both workshops that have had adequate effects in the development of competencies and skills. On the other hand, the effort to link the research methodologies of the mentioned fields in order to build meeting points and facilitate the relationship between disciplinary subjects and research in psychology is presented. To this end, some efforts developed by the participants and the team of professors on the possible links in theory, research and practice are presented based on ludic and creative elements related to the use of social networks and other platforms such as the development of podcasts in the framework of the Neun and Atarraya seedbed. Finally, a series of discussions and conclusions are made about the disciplinary work from different perspectives and contributing to undergraduate training and prioritizing formative research.

# Learning in Higher Education

## **Inclusive Practices in Health Sciences: Equity Proofing Higher Education Programs**

**Mitzi Brammer, Associate Professor, Speech, Language and Hearing Sciences, Saint Louis University, Missouri, United States**

This paper highlights the research and subsequent outcomes of a grant-funded project that addresses inclusive practices in a health sciences college at a private midwestern university in the United States. Quantitative and qualitative data are shared as well as implications for pedagogy in higher education. We share numerous resources that align with equity, diversity, and inclusion in higher education.

## **Digital Dreams - Positive Associations: What Are Students of Teaching looking Forward to?**

**Pavlina Bulušková, Student, Mgr., University of Hradec Králové, Královéhradecký kraj, Czech Republic  
Lucie Brabcová, Student, Mgr., University of Hradec Králové, Královéhradecký kraj, Czech Republic  
Jana Marie Havigerová, Associate Professor, Department of Primary, Pre-Primary and Special Education, University of Hradec Králové, Czech Republic**

This study focuses on analyzing positive emotions associated with the perceptions of the future of students of teaching for primary education. Participants were asked to create a drawing representing their vision of the future and subsequently describe in a commentary what they looked forward to in that future. The collected data are analyzed using thematic analysis to identify the themes students were excited about. The research sample consisted of 50 students of teaching for primary education. The study's findings provide insight into positive emotions related to the future, particularly in the context of using digital technologies and anticipating the future development of the world, which can be valuable for shaping programs on how to prepare future teachers for tomorrow's schools.

# Learning in Higher Education

## **Attrition and Retention of Black African Students in South African Universities**

**Siyanda Cele, Lecturer, Adult Community and Continuing Education, University of South Africa, KwaZulu-Natal, South Africa**

Access to South African Higher Education Institutions (HEIs) has increased, however, improved success and graduation rates continue to decrease especially with the Black African population. Therefore, Black African youth entering university do so from positions of extreme inequalities in terms of schooling background, class, and economic resources. Such inequalities have a large impact on these students' success and dropout at university before they graduate. This study adopted a qualitative approach to investigate Black African students' experiences of retention and attrition at a university in South Africa. Data were collected by interviewing sixty-six Black African students from eight South African universities. Tinto's Student Integration Model (SIM) was used as a theoretical lens to reflect on participants' experiences and how these experiences impact their decision to persist or drop out before completion. The findings indicate that Black African students continue to feel unwelcomed in some universities, especially the previously Whites-dominated universities. The findings indicate that most Black African students come from impoverished backgrounds, and they cannot afford tuition fees which negatively affects their success at university. The findings further suggest that high school background does not adequately prepare Black African students to adapt to the university curriculum and university culture. The findings indicate that language continues to disadvantage Black African students at university which compromises their academic success. Finally, the study suggests that to improve the academic success of Black African students the university curriculum must be decolonized.

# Learning in Higher Education

## **Exploring Factors Affecting the Academic Performance of Young Female Students in an Open and Distance E-learning Environment during COVID-19**

**Thulani Chauke, Senior Lecturer, Adult Community and Continuing Education, Limpopo, South Africa**

The effect of the COVID-19 pandemic has been felt by both male and female students in Open and Distance e-Learning (ODEL) and contact-based learning institutions in South Africa. However, young female students have been the most affected group. Societal norms that reinforce cultural practices, which favour male students, hinder the academic performance of young female students. Therefore, this study explores factors that affected the academic performance of young female students in an ODeL environment during the COVID-19 pandemic. Semi-structured interviews were conducted with eight female students between the ages of 21 and 35. Data were analyzed using a thematic analysis. The findings reveal that the categories of factors that negatively affected their academic performance were a lack of family support, a lack of resources, and living in an overcrowded home. This study recommends that local municipalities in rural areas where these students reside should have at least one community hub that has working computers with consistent and stable access to the University of South Africa, as a leader in ODeL in South Africa. The University should partner with the Commission for Gender Equality to develop long-term strategies that will see both institutions offering free data to young female students studying through open and distance e-learning methods, particularly for those who come from remote and rural areas, or poor socioeconomic backgrounds. This will enable young female students to obtain access to the internet for information and their educational materials.

## **Opening Our Classroom Doors: Professor-practitioner Co-teaching**

**Lola Costa Gálvez, Learning Experiences Designer, Open University of Catalonia (UOC), Spain**

**Birgit Strotmann, Senior Lecturer, Departamento de Traducción e Interpretación y Comunicación Multilingüe, Comillas Pontifical University, Madrid, Spain**

This study scrutinizes the co-teaching model employed in the "Strategic Communication Skills" course at Comillas Pontifical University. Conceived as a collaborative academic-professional partnership, the course aims to harmonize educational approaches from both realms. The benefits are twofold: it augments professional development for instructors and enriches the student learning experience through diverse instruction and multiple viewpoints. Both pedagogical methods and assessment criteria are jointly designed to bridge the academic-professional divide. Key questions of this experience include how industry professionals can assist academics in acclimating students to emerging digital communication needs and how to effectively prepare future graduates for digital work dissemination. The target audience of this workshop are lecturers, policy-makers, heads of study, teaching innovation departments. Main objectives and/or intended learning outcomes are (1) an understanding of the contribution of interdisciplinary co-teaching to preparing students for the workplace and (2) the challenges and affordances of co-teaching for professional communication courses. Activities to be carried out (including with/by the audience). The workshop dynamics are: after a brief interactive introduction to interdisciplinary co-teaching, examples of good practice from the case study will be presented. Participants will then be asked to brainstorm applications of the approach to their own teaching situation, developing a step-by-step plan for implementation, to be shared with other groups by means of a jigsaw activity.

# Learning in Higher Education

## Engaging and Inclusive Syllabi: Strategies and Lessons Learned

**Anneris Coria Navia, Director of the Center for Teaching and Learning, Curriculum and Instruction, Andrews University, Michigan, United States**

**Tammy Shilling, Associate Professor, School of Communication Sciences and Disorders, Andrews University, Michigan, United States**

**Jenica Joseph, Assistant Professor, School of Communication Sciences and Disorders, Andrews University, Michigan, United States**

In this session we use examples, strategies, and lessons learned through utilizing inclusive and engaging syllabi language. This session will connect course design and syllabi with student-centered approaches such as: incorporating motivational and engaged learning, trauma-informed care, co-design models engaging students as partners. Audience participants have the opportunity to identify places in their current syllabi where they can incorporate one or more of the strategies shared in the session

## Utilizing AI Chatbots in Higher Education Teaching and Learning

**Thomas D. Cox, Associate Professor, Educational Leadership and Higher Education, University of Central Florida, Florida, United States Laurie Campbell, University of Central Florida**

With the rapid societal emergence of generative artificial intelligence chatbots, calls for responsible use of AI permeate public voices. Higher education is no exception. The Diffusion of Innovation Theory seeks to explain how technologies like generative AI large language models are being adopted. Instructors are faced with addressing AI in instruction as the use of generative AI chatbots is accelerating. Further, instructors are seeking to understand how generative AI can and currently is being utilized in teaching and learning. In this study, 25 graduate education learners discussed their current use and perceptions of AI chatbots. Most of these learners indicated they had utilized AI chatbots to support their personal and professional lives. Most learners indicated that they did not utilize generative AI for academic writing assignments but used it for other pursuits. Implications for teaching and learning include discussing with learners how, when, and if generative AI can be utilized in the classroom.

## Re-engineering Post Pandemic Pre-service Curriculum

**Dyan Grace Crespo, Student, Master of Arts in Education Major in English, Bulacan State University, Bulacan, Philippines**

When the COVID-19 pandemic hit the Philippines in 2020, the curriculum and instruction in several learning institutions were affected. Teachers in basic education and higher academic institutions' instructors were unprepared for the indefinite suspension of classes. This paper looks for the gap and assess the pre-service curriculum that was "derailed" during the pandemic. Mixed methods research was applied to gain the comprehensive results of the study. Preliminary results show that the pandemic's effect on the study's respondents and participants pushed them to re-engineer the pre-service curriculum to attune with new hybrid learning.

# Learning in Higher Education

## **Enhancing Industrial Design Education Through Blended Learning Models: Bridging Theory and Practice**

**Hatice Merve Demirci, Lecturer, Industrial Design, Atilim University, Turkey**

The contemporary landscape of industrial design education is undergoing a significant transformation, propelled by integrating digital technologies and the evolving demands of the global market. This research explores the potential of blended learning models to enhance the quality and accessibility of industrial design education, bridging the discipline's fundamental theoretical and practical components. Through a mixed-methods approach, combining quantitative assessments of student learning outcomes with qualitative insights from educators and students, this study investigates the impact of incorporating digital tools, such as Miro, a collaborative online whiteboarding platform and 3D printing, into traditional studio-based learning environments. The research highlights the challenges and opportunities presented by blended learning strategies, including student engagement, pedagogical effectiveness, and the integration of innovative technologies in curriculum development. By examining the implementation of blended learning in industrial design education, the study develops a comprehensive model that facilitates a more immersive, interactive, and practical learning experience. This research contributes to the broader discourse on educational innovation in design disciplines, offering valuable insights for educators and practitioners interested in leveraging technology to prepare students for the complexities of the modern design industry.

## **Challenges to Minority Student Success in STEM Disciplines**

**Gheorghita Faitar, Associate Professor, Natural Sciences and Mathematics, D'Youville University, New York, United States**

In one Upstate New York institution, an introductory mathematics applied course is offered to first year students. The initial course is followed by an algebra and trigonometry class. The qualitative longitudinal study is conducted on the progress of the first-year students of immigrant descent. As some of the students prove a great level of progress in the first year applied mathematics, the second year, the challenges of sustained effort, participation, interest come to forefront. The impact of culture, and grit for students pathway to success are analyzed and interpreted.

# Learning in Higher Education

## Exploring the Connections Between Co-Teaching and Self-Efficacy in Higher Education

Raquel Fernández Fernández, Lecturer in Modern Language/ Director of the Master's in Teaching English as a Foreign Languages, Modern Philology Department, University of Alcalá, Madrid, Spain Lyndsay R. Buckingham, Assistant Professor, Department of Education, Research Methods and Evaluation, Universidad Pontificia Comillas, Spain

The present study is part of an official research project funded by Universidad Pontificia Comillas (PP2021-11, Madrid, Spain) on co-teaching at the university level. It involves the analysis of personal diaries and interview transcripts produced by 27 lecturers from 2 universities located in Madrid, collected over five consecutive years (2019 to 2023). Evidence of self-efficacy, positive or negative, was categorized according to Bandura's framework of four sources (1997) and then further analyzed. The results indicate that co-teaching may be a potential catalyst for the development of positive self-efficacy, primarily because it boosts self-reflection and metacognitive skills. Researchers found fewer instances of negative self-efficacy, which were often related to the use of ICT or connected to new experiences in co-teaching. The primary conclusion is that engagement in a co-teaching partnership prompts teachers to reflect on themselves and become aware of their beliefs and performance. For this reason, co-teaching may be a valuable practice in teacher professional development.

## The Precariousness of Teaching Work in Higher Education: Some Reflections on The Last Years (2020-2021)

Márcia Fragelli, Coordenação Educacional, Senac São Carlos, São Paulo, Brazil

The present work establishes a reflection on the precariousness of teaching work in higher education in the Brazilian reality and its relationship with some evidence cited by BOSI (2007). It consists of a bibliographic survey of this reality in view of the changes that occurred in the world scenario in the years (2020-2021), due to the health crisis triggered by COVID-19. As a result, we verified that teaching work was heavily impacted during this period and that the precariousness of these professionals' work in higher education presents a historical configuration being established in a scenario of privatization of the means of production of their work and in an environment marked by extreme competitiveness and productivity that contribute to a context of illness and the strengthening of Distance Education. This scenario is characterized by challenges, uncertainties and illness among professionals, including teachers, revealing the devaluation and depersonalization of the teaching identity and where academic productivism and the uberization and alienation of work are ratified, in the face of conditions of vulnerability that result in illness of professionals who are left to their own devices, impacting other consequences that can be analyzed in the short, medium and long term. We conclude that the pandemic is not directly responsible for all these issues, but it shows a fertile ground for the financialization of higher education, increasing precariousness, overexploitation, the impoverishment of education with a utilitarian bias, affecting peripheral and central capitalist countries differently.

# Learning in Higher Education

## **Creating Community: How Sending Postcards Connected Museum Interns Through Narrative Writing and Art-making**

**Beatriz Galuban, Assistant Professor, College of Humanities, Social Science and Art, Texas A&M University-Commerce, Texas, United States**

This paper explores how an empathetic postcard writing method called (fe)mail was used for reflection and connection among graduate students interning at different museums throughout the city. Oftentimes museum internships and fellowships, whether connected to coursework or not, are completed in isolation from the rest of a student's studies and course load. While reflections or evaluations are commonly assigned to students in these internship courses, they are not regularly given opportunities to truly connect with their peers and learn about other student's experiences. The paper addresses the following questions: 1. Can postcard writing be used as a tool for connection and empathy among students and 2. Can postcards serve as a space for vulnerable reflection of the internship experience? The paper provides a description of the internship course in which students exchanged postcards with one another and a theoretical basis for (fe)mail as a method. This is followed by my analysis of the postcards created throughout the semester along with images of their written components, examining how students bonded through similar experiences of self-doubt and professional growth. I also address ways in which the (fe)mail exchange provided a safe space for genuine reflection of the internship experience. I present feedback, discuss areas for improvement, and talk through the challenges of instituting such a method for a graduate level course. Finally, I provide suggestions for educators wishing to try this out with their own students, and museum education interns.

# Learning in Higher Education

## **Implementing Pedagogical Translanguaging in Higher Education: Students' Views and Teachers' Challenges**

**Gema Gayete, PhD Student, English Studies Department, Universitat Jaume I, Castellón, Spain**

The multilingual turn has established new multilingual pedagogies in education that go against language isolation. One example is pedagogical translanguaging, a teaching approach by which two or more languages of the students' language repertoire are systematically used in instruction. However, the theoretical framework on pedagogical translanguaging is much more extensive than the number of studies that applied translanguaging pedagogies in the classroom context. Therefore, this study has implemented pedagogical translanguaging in a public university of Castelló (Valencian Community, Spain) where three languages (Catalan, Spanish and English) are offered as teaching languages, although actual classrooms still follow monolingual perspectives on language learning. In particular, 65 content teachers-to-be took part in the study, who have a crucial role in the future of the education system. Pedagogical translanguaging was applied during 8 sessions of 1 hour each within the English language subject from the first year of the preschool education degree. Through this multilingual approach, students' language repertoire (Catalan and Spanish) was employed systematically to reinforce target language learning (English). After the pedagogical intervention, students participated in group discussions to reflect upon the effectiveness of the approach, and express their views towards it. Results showed that although some students conveyed positive beliefs about the multilingual approach and perceived its usefulness for English learning, some other students based their attitudes on traditional monolingual views. Several challenges were also found in the multilingual classroom, such as students' initial reluctance in participating in multilingual activities and the lack of suitable multilingual materials and digital resources.

## **Inclusion and Inclusive Education in Global South and North: Practices and Policies in UCL and University of Nairobi**

**George Giannopoulos, Lecturer, Physics and Astronomy, UCL, United Kingdom**

In this study, we investigate how Inclusion and Inclusive Education are conceptualised in the context of two Universities, University College London (UCL) and University of Nairobi (UoN) and what are the practices and policies that exist in these two institutions. For this we conducted reviews of the literature on Inclusion, Inclusive Education, disability, race and international/refugee students as well as analysed the policies and practices of the two Universities in two case studies. We developed a framework of concepts that were used for this analysis in both institutions and our preliminary findings from the surveys and interviews conducted to gain more insight into students' and staff's experiences of Inclusion and Inclusive education in the two Universities. We are also providing some provisional recommendations based on this analysis.

# Learning in Higher Education

## **Does Procrastination Dave a Cultural or a Neurological Source?: Evidence of Its Mediating Role in the Relationship between Psychological Capital and Academic Adjustment**

**Batel Hazan Liran, Head of Field Studies Unit, Faculty of Education, Tel-Hai Academic College, Israel**

The study examines the relations between psychological capital (PsyCap), academic adjustment, and tendency toward procrastination in three groups of students in higher education: an ethnocultural minority group (Israeli Arabs), a neurotypical ethnocultural majority group (Israeli Jews), and an ethnocultural majority group diagnosed with learning disabilities (Israeli Jews with learning disabilities). The goal was to deepen and expand our understanding of the factors that affect academic adjustment. Four hundred and forty-nine post-secondary students enrolled in various academic institutions in Israel participated in the study. The data were collected using an online Qualtrics questionnaire. First, it was hypothesized a positive relationship between PsyCap and academic adjustment and a negative relationship between those two variables and academic procrastination. This hypothesis was fully corroborated. Second, it was hypothesized that students from an ethnic minority group and majority students with a diagnosed neurological disability would present lower levels of PsyCap and academic adjustment and higher levels of academic procrastination than a majority neurotypical group. The hypothesis was only partially confirmed. Third, it was hypothesized that the higher the PsyCap, the lower the degree of academic procrastination and, in turn, the higher the academic adjustment. The hypothesis was confirmed. The findings can help support the design of academic assistance programs to improve the integration into higher learning of students who belong to special groups.

## **Assessment Strategies for Small Group Learning Exercises**

**Denise Hileeto, Associate Professor, School of Optometry and Vision Science, University of Waterloo, Ontario, Canada**

Small group learning exercises have been established as an efficient method to inspire students to learn, but a defined format for assessment of small group learning has not been established. We compared two collaborative quiz assessment strategies for small group learning – in the first one we assigned fixed participants (FP) to small groups of ~4 students at the beginning of the term, and in the second, we assigned variable group participants (VP) every time. In both formats, students were given a multiple-choice quiz and instructed to collaboratively find solutions to the 30 quiz questions within their small group. The mean scores of 4 collaborative quizzes were calculated and compared using t t-test assuming unequal variance for two cohorts of 90 students for the FP and VP small groups respectively. The mean scores obtained in the FP small groups were unrealistically high (96%+/- 0.1%) and statistically different ( $p<0.01$ ) compared to the scores in the VP small groups (92%+/-0.3%). The FP format quiz assessment also shows an unrealistically narrow spread of only 6% difference between the highest and the lowest scores (93%-99%). In contrast, the scores range spread in the VP format was 17% (lowest score 82%, highest-99 %), values and a range spread similar to the traditionally observed in this course in the past. Adding a collaborative quiz assessment to small group learning exercises is an effective format of assessment if randomization of participants is performed immediately before the exercises.

# Learning in Higher Education

## **Online Learning Communities: Bridging the Gap among Historically Underserved Populations in Health Science**

**Lanisha Howze, Online Curriculum Manager, Online Education and Expanded Programs, Morehouse School of Medicine, Georgia, United States**

Evidence suggests that there is a gap for underserved populations in health sciences. Through online education, access to learning opportunities is growing in health informatics, biotechnology, health administration, and health education. However, online education can lead to feelings of isolation and disconnection from the educational community. Morehouse School of Medicine is working to mitigate these issues through the online learning community (OLC). The OLC was established through the core foundation of the five Cs to create community support for underrepresented populations. We evaluate the core foundation using the five Cs methodology and designed an approach to address blind spots to enhance every student participating in the community. Determining the student type and general needs, as well as the resources available to be maximized for underserved populations, corresponded with the current student survey data collected. We found that the online learning community at Morehouse School of Medicine served as a tool for facilitating discourse and community-building among the online students. Through this tool, students were afforded the opportunity to enhance their education and increase engagement via collaboration and connection with their cohort.

## **Intercultural Curriculum and Educational Research in Brazil: Some Illustrations of Knowledge Production**

**Ana Ivenicki, Professor Emeritus in Education, Faculty of Education, Federal University of Rio de Janeiro/UFRJ, Rio de Janeiro, Brazil**

The present study discusses how intercultural competence in educational research could be integrated as a curricular component in higher education. It argues that such an articulation could promote learning and digital learning as a conversation of race and racism through research-informed action. In a decolonial multicultural theoretical framework (Banks, 2004; Ivenicki, 2018; 2023), it argues that such a perspective helps problematize homogenized and colonized ways of developing educational research and digital learning, therefore representing both a way to develop intercultural competences and inclusion in curriculum in higher education, and of protesting against research that silences the voices of minoritized groups. Methodology has been based on bibliographic analysis of knowledge production, as the paper seeks to articulate theoretical considerations to the analysis of illustrations of institutional research as evidenced in articles of a Special Interest Group called Racial and Ethnic Relations within the Brazilian National Association of Research and Post-Graduate Studies - ANPEd, a relevant association that develops research and organizes bi-annual conferences with presentation of cutting edge articles authored by Educational Post-Graduate faculty and their supervised MEd and PhD students in Brazil. It also delved into PhD theses developed in an intercultural study group at a public Brazilian university, taken as illustrations of ways in which intercultural thinking informed and has been translated into curriculum syllabuses. The study concludes, discussing possibilities in translating intercultural thinking into curricular competences aimed at developing inclusive perspectives in educational research.

# Learning in Higher Education

## **The Multivoiced Classroom: Enhancing Pre-service English Teachers' Self-efficacy through Formative Assessment**

**Alfonso Lopez-Hernandez, Assistant Professor, Department of Education, Comillas Pontifical University, Spain**

Numerous studies have found that a perceived low level of competence in the foreign language can negatively affect foreign language teachers' self-efficacy and self-concept. This can be a problem in countries where, as in Spain, many pre-service teachers begin their training with an intermediate to low level of English. This case study offers of a course design and implementation that uses formative assessments and multi-directional feedback to foster a "multivoiced" learning environment that can help respond to the needs of a mixed language ability group. Using team lesson planning and microteaching as the main course task, students are exposed to abundant teacher and peer feedback, provide constructive criticism to their peers' work, and engage in processes of self-assessment and reflective writing. In this exploratory study, we were interested in assessing the effectiveness of these instructional strategies, especially in their ability to support the learning of lower language-level trainees, and even modify their self-concept as prospective English teachers. To do so, qualitative data were collected in the form of anonymous mid-semester and end-of-semester exit tickets, focus group interviews, and reflective essay writing. Initial results suggest that the prominent role of collaboration and feedback in the classroom does provide an effective scaffold for students' learning, although it is unclear whether an increased sense of foreign language pedagogical competence significantly affects trainees' self-concept as English teachers.

# Learning in Higher Education

## **Beyond Self-concordance Motivation: A Sequential Mediation Model Examining the Effect of Freshman Students' Role Obligation on Academic Interest in Their Major**

**Chin Lung Chien, Associate Professor, Psychology, Soochow University, Taipei, Taiwan**  
**Yun Shan Chiang, Teacher, Zheng-Min Elementary School, Taiwan**

According to self-concordance theory, students who autonomously choose majors aligned with their interests (self-concordance in major) generally exhibit higher academic interests and better performance. However, research has shown that in Taiwan, numerous university students face challenges in aligning their majors with personal interests. This study posits that, in addition to self-concordance, students' identification with role obligation—an academic motivation emphasized in Confucian culture—can cultivate learning interest through sequential mediating factors. Focused on first-year university students, a two-wave online survey was conducted at the beginning (T1) and the end of the semester (T2). At T1, participants provided data on self-concordance, identification with role obligation, social desirability (control variable), and demographics. At T2, they reported on academic engagement, achievement, basic psychological needs satisfaction, and academic interest. The results, based on a valid sample of 177, reveal that, controlling for role obligation (T1), self-concordance (T1) had a positive effect on academic interest (T2) but did not significantly predict engagement (T2) and performance (T2). Controlling for self-concordance (T1), role obligation (T1) not only contributed to engagement (T2) but also furthered satisfaction of basic psychological needs (T2), especially the need for competence, ultimately giving rise to academic interest (T2). In conclusion, both "self-concordance" and "role obligation" can predict academic interest in one's major directly or indirectly, with role obligation having a stronger effect on academic engagement. This study provides an alternative pathway for generating academic interest in the major.

# Learning in Higher Education

## **The Nature of University Tutors' and Mentor Teachers' Feedback to South African Preservice Teachers during Teaching Practice**

**Moeniera Moosa, Senior Lecturer, Studies in Education Division, University of the Witwatersrand, Gauteng, South Africa**

In South Africa, the completion of a mandatory work integrated learning (WIL) experience in a school context is a crucial requirement for prospective teachers. However, the feedback provided during this period is often considered a mere university obligation, which can lack in developmental opportunities for students' practical teaching skills. Feedback that connects new insights from principles and concepts of teaching with the lesson contexts develops preservice teachers' practice because it provides a theoretical lens on their practice. This research delves into the feedback offered to preservice teachers by university tutors and mentor teachers during their WIL experiences. The central inquiry guiding this study is: How does the feedback provided by university tutors and mentor teachers during WIL contribute to the development of preservice teachers' practice? This paper is theoretically grounded in Shulman's (1987) model of pedagogical reasoning and action to understand the feedback process. Utilising qualitative document analysis, this study examines a comprehensive dataset comprising written feedback from both university tutors and mentor teachers, spanning a four-year period and involving 64 preservice teachers. The feedback was categorised by an emergent thematic analysis. These findings underscore the importance of feedback that is developmental in nature will better prepare preservice teachers for future practice. This study contributes to the ongoing discourse on teacher education and offers insights into the role of feedback in enhancing the quality of teacher preparation within the South African context.

## **Learning and Undergraduate Research in Biology: Assessing the Program in a Small Liberal Arts Christian College**

**Benjamin Navia, Professor of Biology, Department of Biology, Andrews University, Michigan, United States**

Undergraduate research is one high-impact practice in higher education for student engagement, learning and retention. Research has been an integral component of the transformative education offered by the Biology Department at Andrews University over the years. Research opportunities have been available for students as the faculty of the department have remained active in research and thus have provided space for such experience. With the downward trends in college enrollment in the last few years, small colleges have struggled to retain and attract more students. Therefore, the need to implement and improve high impact practices is essential to the healthy functioning of smaller private institutions. Since formalizing the research program, there has been an increasing number of students becoming engaged in research. This paper includes the history and description of the program, data collected on the program, feedback from participants and also discusses implications for both student learning and loads for faculty mentors involved in the program.

# Learning in Higher Education

## **Exploring the Perceptions of Lecturers and Final Year Students about the Infusion of Inclusion in Initial Teacher Education Programmes in South Africa**

**Mirna Nel, Deputy Dean for Research and Innovation, Faculty of Humanities, North-West University, Free State, South Africa**

**Nicky Pylmsn, Senior lecturer, Education, University of Fort Hare, Eastern Cape, South Africa**

**Tanya Bekker, Head of Division, Studies in Education, University of the Witwatersrand, South Africa**

**Christa Beyers, Associate Professor, Education, University of the Free State, Free State, South Africa**

**Gregory Alexander, University of the Free State, Free State, South Africa**

South Africa embraced the move to inclusive education after the political transformation in 1994 by subscribing to the international Education for All (EFA) drive initiated in 1990 at the Jomtien World Conference on Education for All. Education White Paper 6 (EWP6) affirms that teachers play a central role in implementing an inclusive education system. Training is emphasized as a key strategy to enable educators to become more inclusive in their teaching practices. The focus of this study is on Initial Teacher Education (ITE) for inclusion in the Foundation (Reception to Grade 3) and Intermediate Phases (Grade 4 to 6) of the Baccalaureus Educationis (B Ed) programme. Methods: The primary research aim was: To explore the perceptions of final year students and their lecturers in ITE programmes regarding the preparation of pre-service teachers for teaching in inclusive and diverse learning environments. A qualitative research approach was employed to gain in-depth and rich data. Purposive sampling was used including final year students and their lecturers. Open questionnaires and group interviews were employed as data generation strategies. An inductive thematic analysis shows that the following themes were identified by the participants as critical to be considered in the development and implementation of ITE programmes: Understanding inclusive education, which is also linked to knowledge; the disconnect between theory and practice, the lack of knowledge and practical experience regarding inclusive teaching strategies and how inclusion is addressed in the B Ed curriculum.

# Learning in Higher Education

## **The Relationship between Individual Learning Factors with the Academic Achievement of Two EFL University Learners: Facilitative or Inhibitory Effects?**

**Cinthya Olivares, Student, Ed.D Program in TESOL, Anaheim University, California, Costa Rica**

This mixed-method research study delves into the intricate relationship between learner beliefs, learning strategy utilization, and the academic achievement of two English language students at a rural university campus in southern Costa Rica. The research investigates the connection between learner beliefs, learning language strategies, and academic achievement recognizing the significance of individual learner differences to unravel how preconceived beliefs and expectations may influence student success. Data were collected through one interview, two questionnaires, and artifact collection. The findings underscore the critical role of addressing learner beliefs and expectations in language learning. The study advocates for a "deconditioning" stage in language programs, where students can express their beliefs, fears, motivations, and expectations. The need for educators to approach learner beliefs strategically is emphasized, recognizing their potential impact on both the process and product of language learning in the early stages of learning and the correlation between instrumental motivation and effective learning strategies. While recognizing the limitations of studying individual factors in isolation, this study suggests that an in-depth analysis of learner beliefs and strategies offers insights into the complex essence of the learner. The researcher concludes with a call for positive instructional practices and realistic classroom expectations to counter misleading beliefs, maximize learning strategy use, and ultimately foster a hopeful perspective for every learner, even in the face of inhibitory individual factors.

## **Developing Culturally Responsive Secondary Educators: A Four-Year Study of a Teacher Education Program**

**Tracy Pelkowski, Associate Professor, Program Coordinator, Secondary Education, Salve Regina University, Rhode Island, United States**

This longitudinal, qualitative program study investigated the impact of a four-year curriculum designed by the lead author to prepare Secondary Education Preservice Teachers (PSTs) to engage in culturally responsive pedagogy (CRP). Participation was voluntary and included six ( $n=6$ ) White students enrolled at a small Catholic liberal arts college in the U.S. attended by a majority of White (74.0%) female (70.0%) students. Data collection took place over the course of three and one-half years and included student and instructor interviews, analysis of student work, and Helms's Racial Identity Attitude Scales (pre-and post). Findings confirm that the development of PSTs' critical consciousness and culturally responsive practices must be developmental, spiraled, and open to consistent change. The importance of educating PSTs in antiracist teaching practices in addition to CRP, as well as implications for undergraduate teacher education programs, are also discussed.

# Learning in Higher Education

## "Cultural Openness and Desire to Learn" Regarding Language Education: Systematic Review

Beatriz Peña Acuña, Associate Professor, Philology, University of Huelva, Huelva, Spain

This research critically addresses the intricate relationship between cultural openness and linguistic education from a perspective of the desire to learn, focusing on its impact in multicultural contexts and how it affects educational agents, specifically teachers. The evolution of cultural openness is emphasized as an inclusive practice crucial for the effective integration of diverse participants in the educational process. The systematic review delves into the complexities of this phenomenon, evaluating levels of education, educational environments, and the influence of external factors across various contexts, whether it be the native language (L1) or a second language (L2), foreign language teaching, or the role of the teacher in the process. The study employs a bibliographic methodological approach, finally selecting 20 relevant works for in-depth analysis. This methodology allows for a comprehensive and comparative synthesis of information, providing a holistic understanding of intercultural dynamics in linguistic education. The research goes beyond presenting the current state of the relationship between cultural openness and language teaching; it also aims to identify emerging patterns and gaps in the literature. This critical approach contributes to a continuous understanding of how cultural aspects impact education and how educational agents can adapt and enhance their pedagogical practices in multicultural environments.

## When On-Campus Classes Transition Online, How Are Students Prepared for Learning in this Mode?

Nandi Prince, Professor, Library, New York City College of Technology, United States

There is a good chance that since the disruption of the pandemic, on-campus classes that transitioned to an online modality have continued with this practice. Undergraduate students who normally would not have considered a remote option or utilized it have seen an increase in the number of remote options since campuses were shuttered during the pandemic. However, some undergraduate students are not ready to learn via the emerging blended options of asynchronous, synchronous and hybrid. Many students who choose a virtual option like the flexibility but often find themselves challenged when a structured class schedule is absent. This paper discuss the teaching and learning experiences of bouncing back from the disruption. The author has taught in hybrid mode pre and post pandemic and continues to teach asynchronously. The discussion includes takeaways through everyday examples, simple strategies and transformative approaches. These tools aid students in orienting to the remote modes they are selecting and provide instructors with high-leverage practices.

# Learning in Higher Education

## Promoting Inclusion in Professional and Graduate Education: Implications from a Study on Inclusion in Occupational Therapy Education

**Arielle Ramirez, Occupational Therapy Practitioner, Department of Diverse Learners Supports and Services, Chicago Public Schools, Illinois, United States**

**Anne Kiraly Alvarez, Program Director and Associate Professor, Occupational Therapy, Midwestern University, Illinois, United States**

Students from historically marginalized backgrounds continue to experience barriers to inclusion in professional and graduate education. Presenters summarize their convergent mixed methods study that explored supports and barriers to inclusion in occupational therapy education in the United States. They will use the results and implications from the study to engage attendees in discussions on how to promote inclusion in all phases of professional and graduate education. Dialogue will focus on identifying barriers to inclusion and strategies to address those barriers to promote inclusion for all students, particularly those from historically marginalized backgrounds. Beginning with career exploration, presenters will highlight strategies to support students from historically marginalized backgrounds with identifying career interests and determining which career to pursue. They will then discuss strategies to facilitate recruitment of students from historically marginalized backgrounds and support them in admissions processes. Finally, presenters will discuss strategies to support students from historically marginalized programs throughout their enrollment in professional/graduate programs and to promote retention. Presenters will focus discussions so that attendees can leave the workshop with short-term and long-term actionable items they can implement following the conference.

## Digital Art as Pedagogy: Exploring the Potential of Digital Art Making to Deepen Understandings of Social Justice in an Online University Course

**Anna Augusto Rodrigues, Academic Associate, Faculty of Education, Ontario Tech University, Ontario, Canada**

My study looks at the potential role digital art making may have in deepening student learning on issues of social justice in online university courses. My students created digital collages that visualized a social justice issue as an assignment for an online university course called Social Justice Issues in Education. The assignment gave students an opportunity to critically analyze concepts learned in the course as they applied their understandings of social justice to a digital work of art they created. Delivering course content that is framed through an equity lens has increasingly become important at Canadian universities. A literature review reveals a gap in studies that look at how digital art making can be leveraged to explore social justice themes in university courses. Drawing from critical arts pedagogy, an educational approach that looks at how art and artistic practices develop critical consciousness, I discuss my findings from a study that explores the pedagogical possibilities digital art making offers when learning about social justice issues in an online university course.

# Learning in Higher Education

## **Flipped Classroom and Supplemental Instruction in High Structure Course Design and Their Effects on Students' Learning in Gateway Chemistry Course**

**Lyudmyla Stackpool, Chemistry Instructor, Department of Biochemistry, Chemistry, and Geology, Minnesota State University, Mankato, Minnesota, United States**  
**Galkande Iresha Premarathna, Associate Professor, Mathematics and Statistics, Metro State University Saint Paul, Minnesota, United States**  
**Laura Jacobi, Professor and Program Director (Supplemental Instruction--MavPASS), Communication, Minnesota State University Mankato, Minnesota, United States**

Redesigning high-enrollment, low division courses or gateway courses, in favor of evidence-based teaching practices improves student performance in higher education fields of science, technology, engineering and mathematics (STEM). Course redesign in favor of a blended high-structure course format based on flipped classroom and Supplemental Instruction and its effects on student performance in gateway General Chemistry course was evaluated using the logistic regression analysis. Three versions of General Chemistry II (Chemistry 202) course taught by the same instructor, were assessed based on students' final grades. The sample design included students enrolled in the blended predominantly online low-structure course, control section (fall 2021), with initial population of 67; two blended high-structure courses, experiment in current research: 50% online 50% face-to-face (fall 2022 and fall 2023) with initial populations 63 and 53 students respectfully. It was shown that a blended high-structure course design with the flipped classroom teaching/learning model offered in conjunction with Supplemental Instruction significantly enhanced performance of the students and led to improved student performance in the subsequent course in General Chemistry sequence, highlighting positive long-term effect of the flipped classroom learning on student performance. This research advocates for the adoption of high-structure learning environments and robust Supplemental Instruction programs as effective strategies to foster educational achievement in challenging gateway courses.

# Learning in Higher Education

## **Research Transfer in Co-teaching: A Three-dimensional Approach**

**Birgit Strotmann, Senior Lecturer, Departamento de Traducción e Interpretación y Comunicación Multilingüe, Comillas Pontifical University, Madrid, Spain**

**Magdalena Custodio Espinar, Associate Profesor, Education Research Methods and Evaluation, Universidad Pontificia Comillas, Madrid, Spain**

This paper showcases how a series of teaching innovation projects on co-teaching, grounded in practitioner research, have the potential to generate a virtuous cycle of multiple transferability, reaching students, teacher trainees, teaching professionals and the research community. Arising from a grassroots initiative of university professors wishing to explore the challenges and benefits of co-teaching in terms of the acquisition of 21st century skills such as collaboration or critical awareness, project members researched their own co-teaching practice and its impact on the students participating in it by means of a mixed methods study carried out at a medium-size private university in Spain. A total of 15 courses were co-taught, involving 27 professors from three departments. Following a convergent mixed methods design, data was gathered and triangulated from multiple sources: student surveys, student focus groups, professor interviews, and professor diaries. Study results were made available by means of three integrated strategies of innovation transfer, which will be outlined in this presentation: 1. Transfer of theory into practice (teachers modelling co-teaching - students applying what they have learnt to internships, bachelor theses and future teaching practice). 2. Transfer as dissemination in conferences, congresses, publications, etc. 3. Transfer as a motor of innovation – good practice leading to tailor-made training at schools. Teaching innovation, practitioner research and cross-sectional transferability can thus form part of a virtuous cycle of quality assurance in educational policy, pedagogy and practice.

# Learning in Higher Education

## **Co-teaching: An Instructional Strategy in Teaching Training Programs**

**Evelyn Valverde, Student, Master, Universidad Nacional, San José, Costa Rica**

Co-teaching as an instructional strategy in teaching training programs can generate multiple benefits for pre-service teachers. This strategy refers to having two teachers working together with the same group of students. Co-teachers who participate in this type collaborative approach are not only obtaining feedback from their supervisors but also from their peers and students. Working in pairs to teach a class increases the learning experiences pre-service teachers encounter prior to their future jobs as it might develop interpersonal competencies that boost their negotiation, assertive communication and leadership skills. I present the findings of a qualitative research project that analyzed the experiences of co-teachers in an English as a Foreign Language teaching program in a public university in Costa Rica. The over-arching research question was: What are pre-service English teachers' experiences when engaged in co-teaching practices at a language mentoring project? The answers to this question came from the perceptions of nine pre-service teachers working in a project that offers free English classes and tutoring sessions to high schoolers. Students in the English Teaching major co-teach classes to teenagers on a weekly basis throughout the school year. The findings of this case study provided information on the role of co-teaching in their development as future teachers. The pre-service English teachers' perspectives were gathered through three instruments: an interview, a reflective log, and a journal. The findings reveal that co-teaching: promotes the development of teamwork, builds a strong sense of community, helps students develop assertive communication skills, and builds self-knowledge.

## **Exploring the Attitudes and Behaviors of Professors Toward Teacher Expertise and Improvement**

**Ammon Wilcken, Assistant Professor and Program Lead, Education, BYU Hawaii, Hawaii, United States**

Higher education exists for many reasons, but central to the purpose of any university is to increase the knowledge and skill of students. Effective teaching should presumably be central to this purpose, however, there is little information in the field regarding professors own attitudes toward teacher expertise and teacher improvement and how they go about the process of improving their pedagogical knowledge and skill. Therefore, the purpose of this study was to explore this issue at a small, private university in the Pacific. Twenty-five professors chosen from a wide variety of disciplines were interviewed. Questions contained a mix of quantitative and qualitative questions. Results indicated a consistent desire across campus to teach well and improve. There was also consistency in the attitude that professors were innovating often in their courses. There was less agreement as to whether the university administration valued the improvement of teaching skills with nearly half of the participants reporting they did not feel that was the case. This indicates a potential disconnect between professors and administrators. Regarding behaviors of professors in seeking help in improving their teaching, most reported going to colleagues and the internet as opposed to educational journals, administrators or a Center for Teaching and Learning on campus. Application of this study could be useful to professional developers, teaching centers, administrators and professors who are focused on improving their teaching.

# Learning in Higher Education

## **Building Bridges to Success: Enhancing Learning for First-Generation College Students**

**Denese Wolff-Hilliard, Director of the Writing Center, Academic Support and Resources, Houston Christian University, Texas, United States**

First-generation college students are quickly becoming a majority on many college campuses. As they enter college, they bring unique academic challenges that require additional support and guidance. In this workshop, you will explore the hidden curriculum of your discipline and how to help students discover those caveats. You will review sample syllabi for areas of assumed knowledge or understanding of college vernacular. Working with a college, you will practice how to readjust lesson directions for clarity and explore other areas of lesson design that assume students understand what is expected of them. You will uncover ways to restructure the lesson design to address time constraints, such as using multiple resources, materials, and technology. In addition, you will explore ways to provide more engaging and effective learning experiences to meet first-generation college students' diverse needs and learning styles. Building rapport, creating a supportive classroom culture, and providing specific instructional techniques will help the first-generation students in your college class strengthen their knowledge, develop their confidence, and experience more academic success. This workshop offers a valuable opportunity to refresh your teaching approach and gain the tools and knowledge needed to support the success of your first-generation students.

# Learning in Higher Education

## **Designing Personalised Learning for Adult Learners in the Higher Education Setting**

**Jennifer Yeo, Associate Professor, Teaching & Learning Centre, Singapore University of Social Sciences, Singapore**

**Yan Yin Ho, Senior Lecturer, Teaching & Learning Centre, Singapore University of Social Sciences, Singapore**

**Evelyn Gay, Senior Lecturer, Teaching & Learning Centre, Singapore University of Social Sciences, Central Singapore, Singapore**

**Shih-Ying Yao, Lecturer, Teaching & Learning Centre, Singapore University of Social Sciences, South West, Singapore**

This colloquium consists of four papers that describe how various models of personalised learning are designed to support adult learners in their challenging quest for up/reskilling amidst competing demands from work, study and family in a higher education setting. The first paper (Adult Students' Experience with Microlearning in Higher Education) discusses a mass personalization design based on bite-size learning, where learning materials are chunked into small sizes to provide learners the flexibility to learn during available small pockets of time. The second paper (Examining Personalised Learning in a Work-Study Arrangement in a Tertiary Setting) presents a mass customization approach to learning, where each adult educator's learning experience is made unique and personalized based on their specific workplace problems and interactions with their mentors as they draw their learning from common knowledge base. The third paper (Empowering Personalised Learning: Facilitating Socratic Inquiry using Generative Artificial Intelligence Tools as a Tutor) discusses how learners can leverage ChatGPT as a personal tutor through Socratic questioning. The fourth paper (Personalised Academic Coaching to Support Adult Learner in Tertiary Education) presents a bespoke academic coaching programme offered to adult learners taking part-time undergraduate programs to support them to become more effective and efficient learners. The papers suggest that these personalized learning models can come together synergistically as an ecosystem to enhance adult learners' experience in the higher education setting that supports learning flexibility and adaptivity.

# Learning in Higher Education

## The McKenna Centre: A Case Study in Student Leadership

**David C. Young, Professor and Director, Faculty of Education, St. Francis Xavier University, Nova Scotia, Canada**

The Frank McKenna Centre for Leadership was established at St. Francis Xavier University in 2011, with its chief mission being to provide meaningful and impactful leadership opportunities for undergraduate students. Through a variety of programs and initiatives, students are mentored around what leadership entails, and how they might develop their own leadership style. The Xaverian Leaders Program is a cornerstone of the Centre and is a one-year opportunity for students from all disciplines to participate in two leadership symposiums led by a variety of leadership experts. Students then actualize the theory by designing and executing their own community-based leadership activity, under the supervision and guidance of the Director and student interns. The Centre also provides a series of leadership grants to support student led social justice initiatives. Grant recipients are mentored through the process by an expert in project management and receive additional support from the student interns. In sum, the Centre's approach to mentoring is unique and benefits and empowers all the parties involved, thus leading to a positive sense of well-being. As a case study, this paper explores the role of the McKenna Centre and its approaches to mentoring students so that they become empowered and ready to become change agents.

## In Search of Creativity Through Teaching and Learning Liberal Arts in Interactive Design in Higher Education

**Jing Zhou, Professor, Art and Design, Monmouth University, New Jersey, United States**

The first section of this paper presents a decade long exploration of implementing a liberal arts approach to interactive design pedagogy in higher education. College students in recent decades have been shunning liberal arts and the decreasing number of undergraduates pursuing bachelor's degrees in liberal arts has led to the weakening of liberal arts in Undergraduate General Education curriculum. As academic prioritization promoted more job-oriented disciplines, this known practice of integrating liberal arts component into technological-focused courses has been applied. Furthermore, it was in this teaching experience that I, a design educator, also became educated through persistent learning and searching for wisdom. Not only does this gradual intellectual transformation helped my students to reach better learning outcomes, but also inspired me to embark on an unexpected journey of creating two award-winning projects—Jiang Jian and Cradlr. The second section consists of case studies of the two interconnected projects. On the one hand, it unveils the forgotten story of an extraordinary woman Jiang Jian and the Mothers' Movement in China during the Second Sino-Japanese War. On the other hand, it presents Cradlr: An Interaction Design for Refugee Children, which is a human-centered digital product and network concept designed to keep displaced children—a vulnerable population without cell phones—connected with their families, resources, and heritage on a global scale. Cradlr was inspired by the Mothers' Movement in China and the Women's Voluntary Service (WVS) in the UK during World War II, in search of a humanitarian solution for a complex ongoing social challenge.

# Learning in Higher Education

## **Empowering Students to Deepen and Broaden Learning from an Exchange Program**

**Rena Zendedel, Assistant Professor, Intercultural Communication, Utrecht University, Utrecht, Netherlands**

**Veronique Schutjens, Professor, Human Geography and Spatial Planning, Utrecht University, Faculty of Geosciences, the Netherlands, Utrecht, Netherlands**

Taking an exchange program is an effective way for students to broaden their disciplinary perspectives, to improve their intercultural competences and also strengthen professional skills. However, students are hardly aware of these effects. And if they are, they have great difficulty to both articulate these newly acquired skills and link these to their identity, personal and professional development and competences. To what extent and how does a training trajectory around an exchange program increase (awareness of) professional skill development and equip students to capitalize on their exchange program's learning effects? This paper describes the design and first empirical results of a training trajectory targeting UU outbound exchange students. The trajectory aims to improve exchange students' recognition, understanding, and mobilization of intercultural and other professional competences towards employability skills. Based on a quantitative approach using data collected via pre-departure and back-home questionnaires, we find that the participants are motivated students, who are confident in already mastering particular skills, but aim to actively develop other skills as well. Their (self-reported) skills mastered at the end of the exchange differ from the skills they had before going abroad. Next to intercultural competences, students also reported to have developed in particular self-management and problem-solving skills. In a next project phase we plan to compare the skill development of exchange students who do and who do not take part in the training trajectory, and to explore whether, in what way and why both student skill development and reflections on their learning from exchange programs differ.

# **Science, Mathematics and Technology Learning**

## **Integrating Ethnomathematics into the Teaching of Projective Geometry for Effective Distance Learning**

**Wen-haw Chen, Professor, Applied Mathematics, Tunghai University, Taiwan**

This study evaluated the impact of integrating students' cultural backgrounds into online learning to improve understanding and participation. It employed "simple house theory" and projective geometry in designing traditional houses to make complex mathematical concepts relatable. The instructional strategies included the Ethnomathematics project, which effectively enhanced active student involvement in distance learning. Data was collected from a joint course between Universitas Negeri Makassar (UNM), Indonesia, and Tunghai University, Taiwan. The study involved 36 students: 20 from UNM (Group I) and 16 from Tunghai University (Group II). Various tools like surveys, tests, and projects were employed for data collection. The survey had 23 Likert-scale questions, allowing a thorough evaluation of student feedback. Quantitative analysis of this data revealed that incorporating the Ethnomathematics projects into the curriculum significantly increased student engagement in remote learning. This was further evidenced by improved student performance in project work. The research underscores the benefits of culturally relevant teaching methods in enhancing engagement and understanding in online mathematics education. It highlights the effectiveness of embedding local cultural elements into online learning environments, creating more engaging and relatable experiences. The study suggests the potential of these approaches in other educational contexts and disciplines for future research.

## **Relevant Mathematics Concepts Learnt by Engineering Students and Their Links to Antenna Devices in Engineering Education: Introduction and Review of the Literature**

**Vojo George Fasinu, Research Fellow, Mathematics Education, University of South Africa, Gauteng, South Africa**

Some developed countries like United State of America, United Kingdom and some European countries frown at the poor handling of mathematics among engineering education students in their universities. Whereas mathematics to some developing countries remains a mere tool for predicting the economic development of a country, but for the case of electronics engineering and technology education students it is not so. In fact, some electronics engineering students just learn and calculate some mathematical concepts and domains without knowing their importance and implications in some industrial machines. And this has affected the effective design of some electronics tools. On this note, this paper takes it at its point of departure by reporting the historical perspective of some mathematics concepts in antenna and electromagnetic related device, starting from its point of origin. It also reports the different mathematical concepts learnt and used when learning an antenna theory and design course in engineering education. Some of these mathematical concepts include calculus, geometry, differentiation, algebra, Fourier transforms, and Improper integrals. More so, concepts like Further Sequences and series, Taylor expansion and some antenna analytical equations are also considered. All these were reported in line with their links to an antenna theory and design course. In actualizing the goal of the study, a mixed-method approach was used in collecting the available data from some electronics engineering students in a university in South Africa. The implication of the study is that inability to recognize appropriate mathematics concepts may eventually affect learner's design ability.

## **Investigating Elementary Teachers' Knowledge and Attitudes toward Education for Sustainable Development**

**Hsing-Wen Hu, Professor, Department of Teacher Education, Coastal Carolina University, South Carolina, United States**

**Grant Sasse, Dean of Curriculum, Accreditation and the School of Professional Studies and Applied Sciences, Chadron State College, Nebraska, United States**

This study explores elementary school teachers' knowledge and attitudes toward Education for Sustainable Development (ESD). In addition, the researchers examined the differences and correlations toward participants' demographic background, education, position in school, school size, and certification in ESD. The research results showed no difference in the participants' knowledge/attitudes of ESD in different demographic backgrounds, positions in school, and school sizes, but significant correlations existed between participants' education and certification in ESD. Moreover, educational resources were crucial in enhancing elementary teachers' ESD. For future studies, gaining participants' reflections may provide qualitative information about elementary teachers' ESD. In addition, investigating how participants' knowledge/attitudes of ESD impact students' ESD would be a valuable study.

## A Diagnosis about Preliminary Considerations about Computational Thinking in Primary and Secondary School Teachers in the Municipality of Pasto, Colombia

**Jesus Insuasti, Full Professor, Systems Engineering Department, University of Nariño, Nariño, Colombia  
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Computational thinking is increasingly recognized as a foundational skill for the 21st century, akin to reading, writing, and arithmetic, due to its profound impact on problem-solving and analytical skills across various disciplines. In education, embedding computational thinking into the curriculum equips students with the critical thinking and problem-solving skills necessary to navigate and innovate in a rapidly evolving digital world, fostering a generation that is adept at using technology and understanding and shaping it. Despite its growing importance on a global scale, the implementation of computational thinking within the educational domains of primary and secondary schools in the municipality of Pasto, Colombia, remains in its nascent stages. This research presents a comprehensive diagnosis of the initial perceptions and understanding of computational thinking among 407 educators in Pasto. Our findings underscore the pressing need for targeted training programs in computational thinking, which align with international educational standards and cater to the unique context of local schools. By highlighting specific areas of interest and potential application in real-world scenarios, this paper paves the way for more effective integration of computational thinking into the local educational curriculum, thereby enriching students' learning experiences in Pasto.

## HPC-ED - a Federated Repository for High-Performance Computing Training: Finding, Sharing, and Assessing Technological Training Materials

**Richard Knepper, Director, Center for Advanced Computing, Research Division, Cornell University, New York, United States**

Training materials for high-performance computing, programming, and using computational science software abound, but they can be difficult to find and often have minimal information about their relevance or quality. The HPC-ED Pilot project supports a platform that incorporates existing training materials into a repository that makes training materials findable, shareable, and integrable into training portals at local universities and research centers that support High-Performance Computing. Organizations and authors of training materials retain physical and legal ownership of their materials by sharing only the catalog information. The HPC-ED repository allows local portals to be augmented with additional content from vetted sources, integrating local and remote training resources under a single resource. Learners are able to make use of HPC training materials that are reviewed and categorized with a common metadata model. The metadata model includes a standard set of descriptive tags that allow learners to find resources more easily. The HPC-ED Pilot has involved a large number of training providers, including High-Performance Computing resource providers, universities, and other institutions to incorporate remote training materials as well as disseminate them to broader audiences. Currently initial project partners are integrating their content with the metadata schema and making resources available through the repository, and preparing tools to simplify listing content in the repository.

## Digital Inclusion Status Among Pre-service Mathematics Teachers' External Supervisors: A Niche to Effective Teaching Practice in an ODeL Environment

Terungwa James Age, Postdoctoral Research Fellow, Mathematics Education, University of South Africa, Gauteng, South Africa

France Machaba, Lecturer, Mathematics Education, University of South Africa, Gauteng, South Africa

There is a high degree of expectancy for an educationist working in an open distance e-learning (ODeL) environment to be digitally inclusive and anything short of this expectation is an abnormality that needs to be treated with all levels of seriousness. Pre-service mathematics teachers' external supervisors too are not left out of this expectation. Hence, this study, aimed at determining the digital inclusion status of external supervisors of pre-service mathematics teachers in an ODeL environment. The study adopted a survey design with a self-structured questionnaire. A sample size of 44 pre-service mathematics teachers' external supervisors randomly selected from 6 provinces out of 9 provinces in South Africa who were supervising preservice teachers from the University of South Africa (UNISA). The results of the study revealed that the respondents have devices that they can access the internet ( $\bar{X}=3.20$ ), there is strong internet network in their locations ( $\bar{X}=3.14$ ) but the internet data is not affordable ( $\bar{X}=2.16$ ), they have not undertaken a digital literacy programme ( $\bar{X}=1.93$ ), hence, not digitally literate ( $\bar{X}=2.86$ ). The study further revealed that mathematics pre-service teachers' external supervisors cannot sufficiently apply internet usage skills online ( $\bar{X}=2.23$ ) and they are not satisfied with their internet usage outcome ( $\bar{X}=2.02$ ), thus, need to improve on their internet usage skills ( $\bar{X}=3.7$ ). It was concluded that the external supervisors are not digitally inclusive, therefore subsidized internet data and periodic digital literacy training programme were recommended so as to enable the supervisors to be digitally inclusive for optimal performance.

## An Exploration of Grade 9 Learners' Misconceptions in Ratio and Proportion: A Case of a Selected School in Lebowakgomo District, Limpopo Province

**France Machaba, Lecturer, Mathematics Education, University of South Africa, Gauteng, South Africa  
Daniel Madzingira, Teacher/Educator, Department of Education, Phumzile High School, Mpumalanga, South Africa**

Studies from several regions of the world have shown that although learners can use ratio and proportion in simple and routine ways, they have difficulty in using these concepts to solve problems. Researchers discovered that learners use flawed strategies that result in misconceptions when dealing with the concept of ratio and proportion. This study was aimed at exploring the misconceptions about learning ratio and proportion among Grade 9 learners at a school in Lebowakgomo District, Limpopo Province. To understand how learners conceptualised and solve mathematical problems related to ratio and proportion, we used the constructs found in constructivism. A qualitative design was employed to explore misconceptions displayed among Grade 9 learners at a selected school following a case study approach. Data was gathered and analysed, through a test and a semi-structured interview in exploring how learners conceptualise ratio and proportion, what kind of misconceptions prevail and what might be the causes of these misconceptions. The study found that most learners failed to correctly solve problems ratio and proportion questions, more especially in which ratio and proportion were not given and where rational reasoning was needed to tackle the problems. Hence, learners ended up using different approaches or techniques such as intuitive, additive, incorrect multiplication strategies, misconceptions related to additive strategy, incomplete strategy, guess work and wrong cross multiplications. The study, therefore, recommends that those teachers should have a very strong pedagogical knowledge content of ratio and proportions so that they should guide learners effectively.

## Inclusive Education for Sustainability in Mathematics Learning: Application of Inquiry-based Facilitation to Advance Inclusivity

**Motshidisi Masilo, Senior Lecturer, Mathematics Education, University of South Africa, Gauteng, South Africa**

The education system in developing areas is based on teacher-centred classrooms with minimal learning resources. In such education systems, the application of inclusive education in mathematics classrooms refers to having all students learning the same content, responding to common teaching strategies, and applying similar learning strategies. The implication is that in any teacher-centred classroom, all students are regarded as the same in terms of cognitive abilities, social needs, and physical abilities. Diversifying individual students is not supported to cater for students' individual cognitive abilities and needs. This research explores inquiry-based facilitation as a strategy to advance inclusive education in teaching mathematics. A case study was conducted where two groups of purposefully sampled grade 11 mathematics students were compared on their engagement in learning geometry. Group 1 was taught Geometry in a teacher-centred environment, while the second group participated in an environment where inquiry-based facilitation was prioritised. An observation checklist was utilised to record participation in both groups; and the interviews were held to determine the students' experiences of inclusion in learning. Findings highlight that inquiry-based facilitation strategy is essential to advance inclusive education. The advancement is successful when students apply inquiry-based learning to achieve (1) social cohesion, (2) co-operative learning; (3) confidence and expertise to operate in a student-centred environment; (4) critical thinking skills; (5) exploration and discovery learning skills. In essence, open methods of teaching such as inquiry-based facilitation, support inclusive education and equip students with methods that are sustainable for cognitive development.

## Deconstructing Factorising Reasoning in a TVET College

**Mbazima Ngoveni, Lecturer, Mathematics Education, Unisa, Gauteng, South Africa**

Often, the term "diagnostic assessment" is used lightly. The analysis of the mathematical reasoning within the "black box" of the student's mind remains a challenging journey of discovery for the educator. It needs to be carefully navigated, not to ascribe invalid motives, driving forces and explanations to the object of study, thereby deriving inappropriate remedial solutions. In this paper, I report on the challenges that National Curriculum (Vocational) Level 2 students at Technical Vocational Education and Training colleges face with regard to factorisation. I focus only on factorisation by grouping and analyse data using Donaldson's error analysis model, which classifies errors into three types of generic errors, namely executive, structural and arbitrary errors. In my investigation, I discover that some of the challenges that students face include the misapplication of knowledge; lack of basic conceptual understanding disabling the factorising procedure; complex errors within their efforts; and errors due to a lack of precision.

# Science, Mathematics and Technology Learning

## **Effects of Garden-based Learning Program for Adolescent Latina-American Girls and Their Parents**

**Peter Rillero, Associate Professor, Mary Lou Fulton Teacher College, Arizona State University, Arizona, United States**

Parents can influence their children's interests and confidence by creating positive learning environments. The Our Plot of Sunshine program uses a Family Problem-Based Learning (FPBL) model that evolved from our Problem-Based Enhanced Language Learning model. It was implemented with Latina-American 5th and 6th grade girls and their parents, who were challenged to design, plant from seeds, care for, and harvest in seven-weeks foods for a tostada party. Lettuce and radishes were common selections because of their rapid growth. The model punctuates the growing gardens with targeted hands-on activities focused on parts of plants, needs of plants, soil, other garden organisms, and the concept of surface area to volume ratio. After the 90-minute FPBL session, 30-minute Conversation Groups (CGs) were held separately for daughters and parents, which explored various topics including cultural and science identities, STEM careers, and positive methods for involvement. The Saturday program was delivered in both English and Spanish. A variety of data sources inform the overall project including pre, mid, post, and delayed post-surveys; a demographic survey; videotaping and analysis of parent-daughter interactions; researcher observations; and focus groups. This presentation is reporting on the girls' science identity and parents efficacy for supporting their daughters in science items that were used as a pre, mid, post, and delayed posttest.

## **Science, Technology, Engineering and Math Education in Geopolitics: STEM Higher Education as 'Soft Power'**

**Abhijit Sen, Professor, Communication & Media Studies, Winston Salem State University, North Carolina, United States**

Higher education can be a powerful form of 'soft power' for a country where students receive world-class education and engage with the local culture by creating networks of like-minded people and contributing billions of dollars to the growing economy. Soft power initiatives are viewed as an important segment of a nation's 'public diplomacy' by promoting a combination of its culture, political values and foreign policy objectives. The power of attractive ideas and the ability to influence what other countries want is subtly connected to 'intangible power' sources such as culture, ideology, institutions and education that other countries want to emulate. To sustain the stability, peace and 'rules based international order,' maintaining and promoting principles of U.S. ideology, science & technology, and culture in the form of soft power, are crucial to achieving the intended goals in geo-politics. Methodology used in analyzing texts, analytical reports, news commentary, and opinion pieces for my study is textual-narrative analysis which is a subset of media research methods known as interpretive analysis. The theoretical basis of this paper is the concept of 'soft power.' Soft power arises from the positive elements and images of a nation's culture, political ideals and policies. Soft power is also the ability to get what one wants through enticements and attraction rather than through coercion or bribery. First postulated by Joseph Nye, a Harvard scholar, the theory conceptualized a nation's ability to persuade and influence other nations via soft power as an alternative to hard power.

# Science, Mathematics and Technology Learning

## "I Became Kind of Like a Leader": Promoting Positive Youth Development in School Gardens

Mariam Takkouch, Student, PhD Candidate, Western University, Ontario, Canada

Isha DeCoito, Associate Professor, Faculty of Education/Faculty of Science, Western University, Canada

School and community gardens are examples of urban agriculture projects that teach students how healthy food can be grown while caring for the environment. This research explores the role of school gardens, as an outdoor environmental education setting, in fostering connections between high school students and their community using the positive youth development model (Bowers et al., 2010). In this model, communities benefit from youth who are engaged and active as citizens, and the youth are valued and supported by their respective communities. The elements of this model are the 5Cs: competence, confidence, connection, character, and caring. This study explores how participating in school gardens contributes to high school students' 5Cs of youth development. This research employed a mixed-method approach, specifically a case study method in an urban high school that maintained a garden on its grounds in Ontario, Canada. Participants included 23 high school students, one teacher, one principal, one volunteer, and one garden coordinator. Data sources included school garden observations; semi-structured interviews with students and their teacher, school principal and garden coordinator; and students' surveys. Findings show the positive impact of involving students in the garden on their competence, confidence, and character. Working in the garden was shown to empower students especially from underrepresented groups. Students also built connections with community members, which exemplified connection and caring. These findings provide new insights about school gardens as a setting that nurtures students' positive development and establishes community connections in a way that is inclusive to students from all backgrounds.

## Implementing the STEM Learning Units to Promote Problem-solving and Innovation Skills for Elementary School Students

Pornsook Tanrarungroj, Instructor, Educational Technology and Communications, Chulalongkorn University, Thailand

This research develops the prototype of STEM learning units to promote problem-solving and innovation skills in small-sized schools for elementary school students and teachers. The research was divided into three phases. The first phase began with exploring the situation, problems, and needs of STEM education. The second phase involved developing a prototype of STEM learning units. The third phase involved studying the results of using STEM learning units. This involved experts, school principals, supervisors, in-service teachers, and students in the central and eastern regions in Thailand. Research instruments were a structured interview form, questionnaires, and an evaluation form. The research results show that the STEM learning units to promote problem-solving and innovation skills for small-sized schools consisted of six components and seven teaching and learning steps. The results reveal that STEM learning units that were developed based on the engineering design process and local problems were suitable for elementary school teachers to utilize in every level of elementary school students. The result of the teaching and learning with learning units satisfied all students.

## Using the REACT Teaching Model to Improve Students' Digital Literacy in Web Design

Chun-Yen Tsai, Professor, National Sun Yat-sen University, Taiwan

In digital literacy, web design courses can help develop advanced skills to achieve various learning goals, such as software applications, programming skills, website planning, and communication skills (Ivanova, 2018; Tsai et al., 2021). However, the research on web design skills is still scarce in the field of computing education research (Tsai et al., 2021; Wang & Wang, 2011). This study utilizes the REACT teaching model in web design courses to enhance undergraduates' web design skills and self-concept. The REACT model includes Relating, Experiencing, Applying, Cooperating, and Transferring teaching strategies (Center for Occupational Research and Development, 2016). The instruments were the Web Design Skill Test, the Self-concept Scale, and the course perception questionnaire. The quasi-experimental research method was adopted. The participants were 91 undergraduates taking general education courses, including 47 students in the experimental group and 44 in the control group. The quantitative and qualitative data analyses were used to conduct a comprehensive analysis. This study demonstrates that the average score of web design skills among students in the experimental group was higher than that of students in the control group ( $F=29.53$ ,  $p<.001$ ). In addition, the results revealed that the experimental treatment had a notable effect on students' self-concept in web design, particularly among students with middle and low levels in the pre-test ( $t=2.87$ ,  $p=.005$ ;  $t=3.64$ ,  $p<.001$ ). Moreover, the open-ended questionnaire showed that students in the experimental group held positive views on the REACT teaching model. Relevant research implications and suggestions are put forward as references for future research.

## Enhancing Engineering Design Process for Teaching Energy in Physics to Grade 10 Students

Jiraporn Tupsai, Teacher, Science Education, KhonKaen University, Khon Kaen, Thailand  
Chokchai Yuenyong, Associate Professor, Khon Kaen University, Khon Kaen, Thailand

This research aimed to improve students' understanding of engineering design thinking in the context of teaching energy concepts in physics. The study involved 30 Grade 10 students from the Demonstration School of Khon Kaen University (DSKKU). Employing a mixed-methods approach, activities were developed to cultivate students' engineering design thinking skills through integrated STEM education. The findings revealed that fostering engineering design thinking in the realm of physics energy concepts contributed to a dynamic learning environment that encouraged students to tackle real-world problems using the STEM approach. The analysis categorised the innovative ideas generated by students into three primary groups: wind-powered solutions, water-powered solutions, and waste-powered solutions. The evaluation of student outcomes integrates empathising with problems, prototyping, and problem definition within the study's STEM education framework. 1) Empathise: Understanding diverse problems, causes of the problem, and impact of the problem scored 2.3 (SD = 1.0). 2) Define: identification or selection of the problem that needs innovative design to solve and identification of problem constraints scored 2.1 (SD = 1.1). 3) Ideate: The demonstration of ideas aimed at solving the problem scored 1.9 (SD = 0.8). 3) Prototype: Demonstration of conceptual principles for learners to create innovative prototypes scored 2.2 (SD = 1.0). 4) Test: demonstration of conceptual principles for learners to test prototypes, evaluation, and improvement of prototype innovation based on identified problems scored 1.9 (SD = 1.2). These results signify the successful integration of empathising with problems, prototyping, and problem definition in enhancing students' engineering design thinking skills.

# **Adult, Community, and Professional Learning**

## **Assessing Emirati University Early Childhood Education Programs in Preparing Pre-service Teachers for Inclusive Education: A Case Study**

**Muna Alhammadi, Assistant Professor, College of Humanities and Social Sciences, Department of Education, Zayed University, Dubay, United Arab Emirates**

This study investigates Emirati universities' general education program effectiveness in preparing pre-service teachers for inclusive education. It assesses pre-service teachers' readiness to teach students with special educational needs and disabilities (SEND) after studying two academic subjects in inclusive education and undertaking three practicums. Pre-service teachers' beliefs, knowledge, and experiences in applying inclusion were explored. Mixed quantitative and qualitative research methods were used to conduct this study. Data for the study were gathered through an online survey, which was developed by the author after gaining feedback from four experts in the field. To validate the results of the survey, semi-structured interviews were conducted with some research participants who completed the survey. The study involved 53 female pre-service teachers specializing in early childhood education, predominantly in their fourth year or internship, all having completed two inclusive education courses. Recruitment was conducted through WhatsApp internship groups and email. The study was conducted at a federal university in the UAE with two campuses. This university was selected because of its strong commitment to inclusive practices for students compared to other universities in the UAE. The results show a positive impact on beliefs but dissatisfaction with inclusion knowledge. The program lacked real classroom-inclusive training, affecting readiness. Based on the findings, we recommend four-year education with diverse inclusive topics and ample teaching practice to improve pre-service teacher preparation.

## **Learning to Work Online as a Team**

**Susan Epstein, Faculty Librarian, College of Medicine, Maguire Medical Library, Florida State University, Florida, United States**

Workplace communication, knowledge transfer and learning methods constitute the basics of informal, on-the-job training (Vuchkovski, 2023), and the bulk of informal training -- learning by doing and mentoring-- occurs during everyday work activities (Korpi & Tahlin, 2021). Part of the learning process for work teams in a hybrid or online work environment is discovering which tools will enable team members to accomplish their project goals while being inclusive and aware of diversity in education, experience and expertise. At the Florida State University College of Medicine, the library's web team has been learning to work together on projects by using emails, chats, posts, shared files and notes, and video conferencing. Leveraging these online tools available in many work environments, the web team has promoted transparency and inclusivity in setting priorities, explaining options, gathering feedback, and making decisions. Operational since January 2024, the team finished our first major project in May 2024, and will continue to learn on the job while refining our workflow processes and using a variety of online tools to accomplish our goals.

# Adult, Community, and Professional Learning

## Communicating Educational Research Effectively in Light of Teachers' Epistemological Beliefs

**Elana Joram, Professor, Educational Psychology, University of Northern Iowa, Iowa, United States**  
**Anthony Gabriele, Professor, Educational Psychology, Foundations, and Leadership Studies, University of Northern Iowa, Iowa, United States**

Teaching has long been considered a profession that draws on the personal intuition and craft knowledge of teachers, as well as a rich body of knowledge about learning and instruction, grounded in educational research. Studies of teachers' research use, however, demonstrate that they most often refer to personal knowledge or that of a trusted colleague, with published educational research rarely mentioned. Studies of teachers' research utilization have primarily drawn attention to various impediments such as lack of time or research training, while teachers' beliefs about knowledge sources have received less attention. In this proposal, we report on data from a qualitative study of middle and high-school teachers' epistemic beliefs about the use of educational research for their practice. We present a conceptual framework of teachers' beliefs about research utilization that is informed by their practical values, epistemic and practical goals and aims, and epistemic beliefs about educational knowledge. Based on this model and our participants' responses, we offer recommendations for effective research communication strategies with teachers, taking their epistemic beliefs into account. Although not typically included in discussions of research literacy and utilization, we suggest that including research communication strategies in these discussions is essential for increasing the likelihood of research use by practitioners.

## Modeling Inclusive and Culturally Responsive Pedagogy in Teacher Education

**Katya Karathanos Aguilar, Professor, Teacher Education, San Jose State University, California, United States**

The benefits of inclusive and culturally responsive teaching have been well-documented and researchers have emphasized the importance of modeling positive examples of this pedagogy for future educators. Yet, there is currently a paucity of research in what effective modeling of this pedagogy looks like by teacher educators, particularly around issues of equity and inclusion. Moreover, tensions often exist between the student learning outcomes that teacher educators have with the needs and expectations teacher candidates have for their own learning. This paper shares preliminary findings from a qualitative inquiry into the perspectives of teacher candidates and the perspectives and practices of instructors into ways in which instructors in a teacher preparation program model inclusive and culturally responsive teaching (CRT) practices in program courses. Data analyzed include instructor and teacher candidate survey responses and semi-structured interviews with instructors. Findings include descriptions and examples shared among teacher candidates and instructors of a diversity of ways in which instructors model inclusive and CRT practices in program courses. Findings further identify areas for growth and additional support needed in order for instructors to further enhance their teaching repertoires in this arena.

# Adult, Community, and Professional Learning

## **Teachers' Mutual Learning for an Inclusive School Culture - the Case of Georgia**

**Sofiko Lobzhanidze, Professor, School of Education, Ilia State University, Tbilisi, Georgia**

**Marika Kirvalidze, Invited Lecturer, School of Education, Ilia State University, Georgia**

**Eka Tqavashvili, Associate Professor, School of Education, Ilia State University, Georgia**

This research considers the factors affecting the mutual learning of teachers, which lead to the strengthening of an inclusive, cooperative school culture. The issue is especially relevant under the circumstances where the priority of the national strategy of education and science in Georgia is shared responsibility among teachers. Phenomenology was chosen as the research approach, and the issue was examined based on respondents' opinions using qualitative methods - in-depth semi-structured interviews and focus groups with school principals, teachers, and experts in the field. The research was conducted in 18 public schools involving 40 focus groups and 33 interviews. As a result of the research, the following factors contributing to the strengthening of an inclusive, collaborative school culture were identified: relationships based on trust, teachers' involvement in decision-making processes, a culture of accountability, perception of collaborative processes as an integral part of teachers' activity, development-oriented peer feedback, workspace necessary for professional dialogue, the school principal as a role model, acknowledgment of the efforts made by the school community, promotion of the integration of the new colleague, and working together to overcome challenges. The following hindering factors were identified: isolating actions and the desire to preserve one's uniqueness, emphasis on successful practices and covering up shortcomings, mistrust of each other's competence, and diffusion of responsibility. The results of the research prove that teachers' collaborative activities are generally unsystematic. Based on the results of the research, recommendations have been developed at the state, school, and teacher levels.

# Adult, Community, and Professional Learning

## **Exploration of In-Service Teachers' Preparedness and Perceived Challenges about Inclusive Education in the United Arab Emirates**

**Laila Mohebi, Assistant Professor, College of Humanities and Social Sciences, Zayed University, United Arab Emirates**  
**Areej El Sayary**  
**Lawrence Meda, Assistant Professor, Education Studies, Zayed University, United Arab Emirates**

The Coronavirus (COVID-19) global pandemic led to the deterioration of exclusive pedagogical practices in different learning institutions. This is because the pandemic forced teachers to make an abrupt instructional switch from face-to-face to online learning without having sufficient time to prepare. Various studies have reported that students with special needs in learning have to tolerate the burden of this tumultuous instructional transition. The educational policymakers have requested that in-service teachers in the United Arab Emirates (UAE) attend an inclusive education professional development program to equip them with knowledge and skills for teaching and supporting special needs children. The purpose of this study is to explore the extent to which in-service teachers were prepared to teach inclusively and the challenges they perceive after completing a six-month inclusive education teacher professional development (TPD) program. The study was done using a qualitative case study within an interpretive paradigm. Fourteen teachers from different schools across the country were purposively selected to complete an open-ended questionnaire and participate in semi-structured interviews. It was found that teachers gained comprehensive knowledge from the program and they felt confident and ready to implement inclusive pedagogical approaches in their classrooms.

## **Professional Conversation: An Informal Mentoring Tool for In-service Teachers**

**Charity Okeke, Lecturer, Department of Education Foundations, University of the Free State, Free State, South Africa**

Mentoring through professional conversation is a common practice among teachers in the education system globally. It corresponds to zone proximal development by Vygotsky. This qualitative study adopted an ethnomethodological research design to establish how teachers benefit from informal professional conversation. Six teachers from one Eastern Cape primary school in South Africa participated in the study through the purposive sampling method. The conversations took place in the participants' school staff room for 30 minutes per day for the whole week. The researcher video-recorded the conversations with the full permission of the participants. The video recordings were reviewed many times before verbatim transcription. Selected episodes were further transcribed following Jefferson's notations for this paper. Clayman and Gill's conversation analysis levels were used to analyse the episodes further to establish how informal mentoring originates from workplace professional conversation. Findings show that teachers mentor colleagues informally through sharing past experiences and testing knowledge on emerging issues. Additional findings indicate that mentoring occurred informally through requesting advice and assessing feedback. Based on the above, the study concludes that mentoring is unknowingly offered informally through professional conversation in the workplace. The study also recommends and encourages teachers and other professionals to engage in professional conversations on work-related issues to support and build each other.

# Adult, Community, and Professional Learning

## **Don't Waste My Time: Characteristics of Professional Development that Mid-Career Teachers Say They Need**

**Jennifer Reichel, Adjunct Professor, Educational Leadership and Learning, University of St. Thomas, Minnesota, United States**

Mid-career teachers make up the majority of the educator population (National Center for Education Statistics) and a significant number of mid-career teachers encounter career cycle periods known as career frustration and career stability (Fessler & Christensen, 1992). The first is characterized by overall frustration and disillusionment with their day-to-day work and the second is seen as a plateau where adequate is acceptable. Despite billions of dollars being allocated to professional development annually (Mirage, 2015), there is a problem designing meaningful learning for mid-career teachers to keep career disillusionment and complacency at bay. Research has covered what content teachers need to have at their command to effectively serve their students (Darling Hammond & Youngs, 2002; Heritage, 2007; Winch, 2004). Additionally, significant research exists about how adults learn (Belanger, 2011; Knowles, 1972; Kolb & Kolb, 2005) and that illuminates the considerations of the delivery of professional development, but there is a gap in the literature about the characteristics of professional development that mid-career teachers need. To keep experienced teachers engaged in continuous improvement in our schools, and to be fiscally prudent with taxpayer dollars, this grounded theory study sought to understand the characteristics of professional development that mid-career practitioners describe as most important to meet their needs. The resulting findings and the emergence of the Mid-Career Professional Development Design framework with its companion guide of application-focused questions are intended to be a tool for leaders and facilitators to consult as they plan, support and implement meaningful professional development for mid-career teachers.

## **Adult Learners on the Frontline: Developing an Educational Partnership with the Department of Corrections**

**Cara Robinson, Department Chair, Social Work and Urban Studies, Tennessee State University, Tennessee, United States**

This paper examines the Professional Management Academy (PMA) - an innovative partnership between Tennessee State University and the Tennessee Department of Corrections (TDOC). PMA offers TDOC employees (e.g. correctional officers, office managers, prison employees) with the opportunity to earn a certificate in Management and Leadership by taking six core courses in Urban Studies. This program integrates basic management and leadership skills and strategies with a foundation in public policy, urban history, social justice, and community engagement. This is important as employees working with some of our most vulnerable citizens - persons who are incarcerated - are receiving academic training in the practical and policy implications of our correctional policy as part of larger societal and urban development. Started in 2016, over 100 TDOC employees have completed the PMA program and 15 have gone on to complete their Bachelor in Arts in Urban Studies degree (with more in the graduation pipeline).

# Adult, Community, and Professional Learning

## **Constructing and Evaluating a Career Planning and Vocational Education Curriculum Integrating Attention, Relevance, Confidence, and Satisfaction Motivation Model**

**Lu Yi Jen, Assistant Professor, Mental Health and Counseling Center, National Yang Ming Chiao Tung University, Taiwan**

This study examines an innovative curriculum titled "Career Planning and Vocational Education and Training" devised by a Teacher Education Centre, aimed at nurturing future educators for elementary and secondary schools. The curriculum integrates vital career planning components drawn from Taiwan's 12 year basic education framework, addressing the changing needs of the educational landscape. It uses the ARCS motivation model, which focuses on Attention, Relevance, Confidence, and Satisfaction, to enhance student engagement and learning outcomes. The programme caters to a broad spectrum of students, from undergraduates to doctoral candidates across various disciplines, engaging them in career-orientated themes and activities to build their career competencies and motivation. Embedding experiential learning, the curriculum melds theoretical insights with practical applications, preparing educators to effectively incorporate career planning into their teaching. The study employs an action research methodology, assessing the curriculum's efficacy via both quantitative and qualitative methods, including career development scales and the ARCS motivation scale. The results underscore a significant increase in student career development competencies and motivation, illustrating the alignment of the curriculum with the goals of the 12-year basic education system and its substantial potential to influence teacher education.

# Technologies in Learning

## The Impact of Using AI-powered Flipped Learning on University Students' Self-efficacy

**Atef AbuHmaid, Associate Professor, Department of Curricula and Instruction, The Hashemite University, Az Zarqa', Jordan**

Learning experiences are usually intimidated by various factors that can impact students' learning. The factors are associated with the learning environment, including physical, pedagogical, and psychosocial dimensions. Apparently, traditional learning experience design often expected students to adjust and uplift themselves to the expectations of those who design them (i.e., teachers and instructional designers). This approach has led to mismatches, disappointment, and learning gaps among students. Apparently, learning design can be seriously tampered by students' "Swiss cheese gaps," motivation, psychological, and other factors. In flipped learning, students may feel less confident and insecure when they are on their journey to learn new concepts alone in pre-classes in their individual space. The current study is set out to examine this notion by asking the following research question: "What is the impact of using an AI model in a flipped learning approach on students' self-efficacy in their learning?" The study utilized a Quasi-experimental research approach, as 120 students at the Faculty of Educational Sciences, at Hashemite University, Jordan, were selected. Students were divided into two groups: the experimental group, which was taught using flipped learning aided by a Large Language Model (LLM), while the control group was taught using the traditional flipped learning approach, where they were asked to watch short instructional videos before they attended the class. A 12-item self-efficacy scale was developed and used. The results of the study show that students in the experimental group were more efficient and effective in their study than students in the control group.

# Technologies in Learning

## **Making Sense of Students' Sensemaking in Karyotype: A Technology Enhanced Learning Environment for Teaching-Learning of Clinical Diagnosis of Genetic Disorders**

**Sunita Ananda Raste, Student, Ph.D., Indian Institute of Technology, Bombay, India**

Sensemaking is seen as a perspective on science education. However, due to insufficient opportunities and a lack of supportive environments, undergraduate science students struggle to make sense of the world and lack the abilities necessary to make macro-micro connections. Implicit sensemaking is one of the essential talents for undergraduates studying biology. Nevertheless, sensemaking ability needs to be explicitly taught in addition to the fundamental ideas. As a result, we must employ a strategy that helps students develop sensemaking skills concurrently with these fundamental biosciences competencies. Learners have great sensemaking chances with case-based interactive learning exercises in real-life problem contexts. We present the results of our study with undergraduate bioscience students ( $N=11$ ). We conducted a one-day workshop where students engaged with Karyotype, a technology-enhanced learning environment (TELE) designed to facilitate sensemaking in the context of clinical diagnosis of genetic disorders. Survey responses, semi-structured interviews, student artifacts, and the log data of their interaction with Karyotype were collected. We used these data sources to analyze and understand students' sensemaking process during their interaction with Karyotype. Our results from quantitative analysis suggest different strategies and patterns of students' interaction that support or hinder their sensemaking during clinical diagnosis. Qualitative analysis of student interviews also provides insights about the cognitive-affective nature of the sensemaking process and the role of Karyotype TELE in facilitating the same.

# Technologies in Learning

## Decolonizing Digital Education: Pathways and Possibilities in a Global Context

**Helena Andrade Mendonça, Researcher at FFLCH-USP Universidade de São Paulo, Teacher and Digital Learning Coordinator Bahema Education, Brazil**

This PhD research has been dedicated to examining the dynamics of online undergraduate and graduate courses during the COVID-19 pandemic. It explores how digital media can either facilitate or hinder dialogic, contextualized, and collaborative practices in alignment with literacy pedagogy and the Freirean perspective, emphasizing active student engagement in knowledge construction. The study primarily focuses on the internet as the primary arena for learning interactions and delves into the concept of digital colonialism as a contemporary and evolving phenomenon in online spaces, considering virtual environments like Canvas, Blackboard, Moodle, and CGScholar as part of the analyzed data. Conducted as a qualitative, netnographic study, this research relies on data generated by students and educators, predominantly sourced from various online resources and virtual environments. Building upon this analysis, the study proposes pathways for decolonial digital education, drawing from decolonial pedagogical theories. It examines courses and learning programs through three essential layers: the learning environment, mobilized knowledge and pedagogical resources, and the interactions that transpire among students, knowledge, and educators. The initial findings unearth promising educational opportunities that align with the principles of cyber-social learning and e-learning ecologies. These possibilities revolve around the integration of reflexive, critical, and collaborative pedagogical approaches, fostering sustainable human-machine interactions. This research represents a vital step towards reimagining digital education in a decolonial framework, addressing the evolving landscape of online learning in the post-pandemic era.

# Technologies in Learning

## **Technopreneurial Learning and Knowledge: How Generative AI and Other Emerging Technologies Can Lead Entrepreneurs in Generating Innovative Ideas, Creating Customer Friendly Products/Services and Developing Commercialization Strategies to Minimize Startup Failures**

**Zulfiqar Aslam, Senior Instructor of Innovation, Technology and Entrepreneurship, College of Business and Economics, United Arab Emirates University Al Ain, Abū Zāby [Abu Dhabi], United Arab Emirates**

Entrepreneurship has always been about finding innovative solutions to problems and creating new opportunities. We are aware of the fact that technology has become a crucial tool for entrepreneurs, allowing them to reach wider audiences, streamline processes and stay ahead of their competition. Therefore, in this research, we investigate and propose how appropriate knowledge and skills of the emerging technological trends of the 21st century, such as Generative AI tools and Platforms (ChatGPT, Jeda, Bard, DALL-E 2, Uizard, InVision, Albert, Chatfuel and AdCreative etc. Top trending tools with new and exciting use cases for Businesses and Startups), Block Chain Technologies, Internet of Things and Immersive Technologies can help entrepreneurs in planning and creating successful startups. They can automate and optimize business processes, perform predictive analytics based on real time data collection, personalize and engage customers in a better and smarter ways, improve supply chain management, achieve greater transparency and security in transactions, enable smart contracts, increase security and trust among stakeholders, enhance consumer experiences through smart marketing techniques, remote collaboration and communication.

## **Teaching English in Vocational Schools by Integrating Virtual Reality: Identifying Obstacles to the Use of Tools in English as a Second Foreign Language**

**Marta Carrion, International Baccalaureate French/English Educator, Modern Languages and Cultural Studies, International Baccalaureate Organization, Alberta, Canada**

This paper tries to identify some of the advantages and disadvantages of the use of virtual reality tools in the process of teaching and learning English as a Second Foreign Language in the context of vocational high schools, in the city of Valencia (Spain), that also embrace inclusive educational programmes. This research focuses on the discernments and feedback of four high school teachers who were interviewed. The outcome shows the importance of holding previous knowledge in this field and being efficiently trained in the use of these tools in the language classroom (English). Teachers from these vocational schools highlight both obstacles and benefits that arise from the use of virtual reality when learning a foreign language.

# Technologies in Learning

## **Artificial Intelligence and Collaborative Learning Platforms: Promoting an Inclusive Environment**

**Jennifer Lanham, Professor, Campbellsville University/Carver School of Social Work, Kentucky, United States**

**Garreth Smith, Programme Coordinator, School of Social Science, Law, and Education, Technological University Dublin, Dublin, Ireland**

**Elizabeth Ann Moore, Assistant Professor, Carver School of Social Work, Campbellsville University, Mississippi, United States**

Integrating artificial intelligence (AI)-powered approaches into social work pedagogy is essential to creating an inclusive learning experience that addresses students' diverse and unique needs while promoting inclusivity. Utilizing AI and collaborative learning platforms, online social work education becomes more accessible and flexible, enabling a broader group of learners to participate in the program and fostering a more welcoming learning environment. In my presentation, I discuss the interactive tools for collaboration and engagement, where students can participate in active discussions, assignments, and projects. Additionally, I share instructional strategies for proper oversight and regulation to ensure innovation and authenticity.

## **Community Partnerships: An Exploration into the Use of an Institutional Website to Promote Diversity, Equity, Inclusion, Belonging, and Justice Values**

**Amy Leshinsky, Director of Graduate Education and Assistant Professor of Graduate Education, Graduate Education, Curry College, Massachusetts, United States**

**Gabrielle Pallotto, Student, Diversity, Equity and Inclusion, Curry College, Massachusetts, United States**

As school communities invest in Diversity, Equity, Inclusion, Belonging, and Justice (DEIBJ) initiatives, administrators and Diversity Committees need to consider the implications of their work on the macro community. The school community should consider the ways their work enables them to act as change agents to make a positive impact on the greater community. This research demonstrates that technology is a viable tool to spread public awareness and knowledge. Specifically, institutional websites provide a modality to disseminate knowledge quickly. DEIBJ websites in K-12 education and in higher education act as a vehicle to give families a way to engage with diversity initiatives at the school and acquire awareness of the knowledge. This allows parents to be supporters of their child's learning alongside the school initiatives. DEIBJ websites give families a way to engage with initiatives and ways they can support their child alongside the school community. This study considers the research supporting DEIBJ institutional websites in higher education and K-12 education and highlights the benefits of implementing a DEI website into a school community. Then, the presentation provides viable suggestions for how to blend school-based DEIBJ initiatives into the institution's website. Finally, we provide recommendations for school leaders exploring the use of DEIBJ websites at their school. Ultimately, this study will benefit school administrators looking to incorporate DEIBJ initiatives into their school with an institutional website as a modality.

# Technologies in Learning

## **Developing Soft Skills Competencies through Project-based Learning and the Use of AI**

**Beatriz Martín Marchante, Lecturer, Applied Linguistics, Universitat Politècnica de València, Valencia, Spain**

The integration of artificial intelligence (AI) in the teaching and learning of languages in higher education is nothing new, as it has been used in its most basic form, the word processor, within the Computer Assisted Language Learning (CALL) methodology for decades. Also, automated writing evaluation (AWE) and intelligent tutoring systems (ITS) have been integrated, giving rise to the so-called ICALL, or intelligent CALL. But the rise of generative artificial intelligence has sparked concerns in the field of education, highlighting the importance of examining its benefits and risks. This case study proposes tasks for Design Engineering students taking Technical English at the Universitat Politècnica de València. The tasks require the use of ICT and AI, specifically ChatGPT, and are designed to incorporate active and collaborative methodologies through project-based work. The objective of this study was to determine the effectiveness of ChatGPT as a tool for enhancing professional attitudes in academic projects conducted in English. To address this question, a qualitative analysis was conducted on the academic projects of 30 students. Various rubrics were utilized to assess and provide corrective feedback. Contrary to what was expected, the analysis of the academic projects conducted using ChatGPT did not show any overall improvement compared to work conducted without ChatGPT in the participants' professional attitudes, including initiative, autonomy, creativity, critical thinking, punctuality, and integrity.

# Technologies in Learning

## Enhancing Teacher Training in Rural Ghana Using the Internet Backpack

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The location of schools influences the degree to which teachers make use of Information and Communication Technology (ICT) resources in their classrooms for teaching and learning practices. Rural and underserved community schools, especially in developing nations, struggle with the lack of Internet connectivity and ICT availability and usage. In these communities, the lack of digital skills among teachers can further increase educational inequities. This research evaluates the effectiveness of the Internet Backpack, a tool which provides Internet access, which was deployed during a teacher professional development workshop in a rural community in Ghana. Using an explanatory sequential mixed-methods approach, the study provides insights into how rural teachers leverage Internet usage for teaching and learning. The participants were teachers from public and private schools, ranging from kindergarten to junior high school. The findings underscore the positive influence of Internet usage in enhancing the digital capabilities of rural teachers, which is crucial for bridging digital divides and improving educational outcomes in these communities. The study offers valuable insights for policymakers and practitioners seeking strategies to empower rural and underserved teachers through digital capacity building, contributing to ongoing discourses on digital empowerment in education, particularly in rural and underserved communities in developing countries.

## ePortfolios - Promoting Inclusivity in Complex Higher Educational Settings

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Khunjulwa Peter, Curriculum and Instructional Studies, UNISA, Gauteng, South Africa

E-portfolios have proved to be powerful pedagogical tools of education in various settings. Research abounds on the benefits and challenges of e-portfolios, but much is not recorded on how they can promote inclusivity in higher education. E-portfolios have the potential to prepare students for their workplace by helping them build professional identities through digitally capturing their learning journeys. Social media is now used to fully support learning in higher education, and through e-portfolios, students can be trained on how to cultivate virtual identities. This research delves into the literature to explore ways in which e-portfolios can enhance inclusivity in higher education. This systematic literature analysis, using content analysis, aims to explore the above gap. The main research question in this study is 'How can e-portfolios promote inclusivity in higher education?' A pedagogical framework for promoting inclusivity in higher education through e-portfolios is suggested based on the findings and conclusions of the papers studied.

# Technologies in Learning

## **Revising Educational Technology Courses in Teacher Education: Engaging Students in the Curriculum Review Process**

**Mohammed Estaiteyeh, Assistant Professor, Faculty of Education, Brock University, Ontario, Canada**

The Teacher Education program at Brock University offers stand-alone courses on digital technologies. Given the rapid technological advancements and the lessons learned from the COVID-19 pandemic, it is essential to reflect on teacher candidates' (TCs') preparedness in using educational technologies and to implement best practices in these courses to ensure that TCs strive in a digital world upon program completion. Accordingly, a team of teacher educators engaged in a rigorous process to review and redevelop the offered digital technology courses in the program. As part of the participatory curriculum review process, the team explored the needs of TCs and their feedback on previous iterations of the courses. The team also consulted with other faculty members to ensure curriculum alignment and examined relevant literature on course design in relation to TCs' TPACK (technological, pedagogical, and content knowledge) development. This paper documents the curriculum revision process with a focus on how students were engaged in curriculum development. It presents the findings of surveys administered to Year 1 and Year 2 TCs and focus groups aimed at discussing their feedback and suggestions. It will also present the educational technology program that resulted from the curriculum review process. This research is timely and will contribute to the advancement of knowledge in the fields of teacher preparation in educational technology, and the Scholarship of Teaching and Learning (SoTL).

# Technologies in Learning

## **Exploring the Impact of Coding Across the Curriculum Professional Development: Efficacy, Career Paths, and Engagement in Rural Education**

**Keri Franklin, Professor of English; Project Director, Computer Science Opportunities, Development & Education in Rural Schools, Reynolds College of Arts, Social Sciences & Humanities, Missouri State University, Missouri, United States**

This paper presents a mixed-methods evaluation of the CODERS professional development program, funded by the US Department of Education's Education, Innovation, and Research initiative. The program aimed to enhance digital literacy in rural schools through interdisciplinary approaches. The professional development (PD) sessions were designed to cultivate coding literacy across disciplines, leveraging expertise from various fields. Using evidence-based pedagogies such as Model-Practice-Reflect and writing strategies, the PD modules facilitated educators in integrating coding into their teaching. The study addresses research questions concerning the influence of CODERS PD on teachers' content knowledge, efficacy, and instructional practices, as well as its impact on rural students' engagement in coding, career interests, and efficacy. Data collection involved surveys, interviews, and statewide tests administered to both teachers and students. Preliminary findings suggest a positive impact of the CODERS program on both teachers and students. Teachers exhibited increased efficacy in teaching coding and writing. Students demonstrated enhanced achievement in science standardized tests and improved confidence in coding and STEM-related fields. The study underscores the importance of integrating coding literacy across the curriculum, particularly in rural settings where access to such opportunities may be limited. By equipping rural educators with coding skills and fostering student engagement in coding activities, the CODERS program has the potential to bridge the digital divide and expand career opportunities for underrepresented groups in 21st-century industries. This research highlights the potential of coding literacy to empower students and educators, shaping their perceptions of literacy, learning, and future career pathways.

# Technologies in Learning

## **Do You Concentrate?: A New Computational Tool for Measuring Students' Concentration**

**Yang Gao, PhD, Psychology, Tsinghua University, Beijing, China**

This study presents a computational tool for evaluating student concentration and learning. Despite mixed findings on fidgeting's impact on learning, it raises questions about whether fidgeting accurately reflects concentration and learning outcomes. We compared humans and a newly developed algorithm (hereafter Youdao Algorithm, YA) on their judgment of fidgeting and concentration. Importantly, we wanted to know whether these judgments of concentration actually predict learning outcomes. We recorded 35 9-year-olds doing a paper-based math test and Attention Network Test (ANT) for 45 minutes. In Study 1, 35 adults watched videos and rated on a scale of 1 to 5 each children's concentration, fidgeting, and math test performance. Results revealed a consensus among adults regarding concentration and fidgeting, yet these ratings did not align with actual math test scores or performance on the ANT. In Study 2, we presented the same 35 videos to the YA. We found that the YA provided divergent assessments from a new group of adults ( $N=615$ ). Interestingly, the YA demonstrated superior accuracy in predicting actual academic performance. To further test, we had adults ( $N=685$ ) evaluate the videos against altered backgrounds (classrooms and cafes). Despite context changes, adults consistently agreed on concentration and learning assessments, replicating Studies 1 and 2. Overall, our studies showed that humans have a consensus of what counts as fidgeting and concentration, but this perception does not accurately predict academic performance. Since teachers' perception impacts students' outcome, non-human algorithm that more accurately captures fidgeting/concentration can be an immensely useful tool for educators.

# Technologies in Learning

## Exploring Challenges in Engineering Estimation Problem Solving in an Open-ended Learning Environment

Ulfa Haneef Khwaja, PhD Research Scholar, Educational Technology, Indian Institute of Technology Bombay, Maharashtra, India

In engineering practice, estimation plays a crucial role, leading to the development of the Modelling Based Estimation Learning Environment (MEttLE). MEttLE is a technology-enhanced open-ended learning platform designed to assist undergraduate learners in tackling intricate engineering estimation problems. It incorporates various scaffolding features such as simulators, hints, an information center, expert guidance, question prompts, and problem mapping to aid learners throughout the modeling and estimation process. However, the complexity inherent in ill-structured problems, such as estimation, combined with the openness of the OELE's design, presents numerous challenges for novice undergraduate learners interacting with the TEL environment. This study delves into understanding the specific challenges encountered by learners when solving estimation problems within the MEttLE environment. Through analysis of students' screen recordings and stimulated recall interviews, we uncovered various challenges associated with the estimation process and the OELE design. Estimation-related challenges revolve around fundamental tasks such as hypothesis formation, discerning relationships between critical parameters, and contextualizing models, all integral to successful problem-solving in estimation tasks. Similarly, challenges related to the OELE include interpreting data provided by its features, understanding the central focus of the simulator, and promoting reflective thinking throughout the problem-solving process. Collaboration is a common practice in engineering problem-solving and is valued in addressing ill-structured problems. It enables learners to find effective problem solutions while working in OELEs. Given the challenges learners face in mastering estimation complexities and the demands posed by the OELE, investigating the role of collaboration in estimation problem-solving within OELEs is crucial.

## English First Additional Language Teachers: Limited Use of Technology in Rural Primary Schools

Margaret Malewaneng Maja, Associate Professor, Curriculum and Instructional Studies, University of South Africa, Gauteng, South Africa

Teachers' limited access to technology in rural communities may negatively impact the usefulness of technology in teaching and learning. This interpretivist qualitative case study explored the integration of technology by English First Additional Language (EFAL) teachers from schools located in rural areas of South Africa. This study is underpinned by the Technology Acceptance Model (TAM). Semi-structured interviews were conducted with ten purposively sampled EFAL teachers. Thematic analysis was adopted to analyse data. The study revealed that most EFAL teachers attempted to integrate technology into their classrooms despite their challenges. The study also found that EFAL teachers are open to integrating technology in their classrooms. Therefore, this study suggests that teachers be given access to technology resources that can aid in language skill acquisition for the benefit of learners. Further in-service training is recommended so that teachers can explore more of the usage of digital devices and platforms in teaching language aspects. In conclusion, we argue that using technology to teach English as an internationally recognised language of communication may improve teachers' digital practices.

# Technologies in Learning

## **Exploring the Value of ICT Training on High School Commerce Teachers' Pedagogical Integration Skills**

**Khanyisile Mbatha, Senior Lecturer, College of Education, University of South Africa, Gauteng, South Africa**

The advancement of educational technologies presents a promising opportunity to revolutionise the teaching of commercial subjects at the high school level. However, effectively integrating ICT into the instruction of these subjects requires educators who possess both digital fluency and pedagogical expertise. This integration process is characterised by multifaceted challenges, including the acquisition of digital capital, the development of self-efficacy, and the cultivation of technological pedagogical knowledge. Grounded in mediated learning experience theory, this study investigates the significance of ICT training in cultivating digital fluency and technological pedagogical knowledge among high school commerce teachers for the purpose of seamless ICT integration in their classrooms. Employing a multiple case study design, we selected three ICT trainers and four high school commerce teachers through convenient and purposive sampling. Qualitative data collection methods, such as ICT training observations, semi-structured interviews, and classroom observations, were utilised to explore the mediating factors involved in ICT training. The study's findings underscore the ongoing need for continuous training to keep pace with evolving digital pedagogical developments. Notably, the study reveals that the ICT training provided primarily focused on basic computer skills, leaving teachers to independently adapt and incorporate ICT into their teaching and learning practices following their training sessions.

# Technologies in Learning

## **Experiences of Technical and Professional Support Offered to E-tutors in an Open Distance Education and Learning Institution in South Africa**

**Mary Mmatsatsi Madileng, Senior Lecturer, Department of Humanities: English Studies, University of South Africa (UNISA), Gauteng, South Africa**

This paper investigates how an Online Distance Education and Learning (ODEL) institution in South Africa offers technical and professional support to e-tutors to ensure that they have sufficient knowledge and substantive skills to be the authority of the students. E-tutoring is the learning process consisting in individual student contact with a tutor through a virtual environment, as well as a way to support individual students who want to develop their skills and competencies. It is a form of online teaching approach using information technology to provide educational access, student support in the educational process, and motivation in solving educational problems. For an effective and sustainable e-tutoring approach, e-tutors need to be sufficiently competent educators in order to support students to solve educational problems using information technology. They therefore need certain qualities and skills such as knowledge of the subject matter, ways of engaging students using various technological applications, organisational skills to be able to keep track of students and coordinate educational activities. E-tutors therefore need continuous support in terms of technological skills development, instructional and content knowledge. This study is underpinned by the continuous professional development (CPD) framework and qualitative research design. CPD is essential for upgrading and upskilling educators to keep them updated with continuous changes and trends that culminate from technological innovations, content and pedagogical knowledge. It is therefore essential for every educator, especially e-tutors, in an attempt to adapt teaching and learning to the needs of an organisation, to meet the needs of respective students.

## **College Level Blogging: Overcoming Budgetlessness, Disenfranchisement and Stagnation**

**Jorge Morejon Benitez, Lecturer, Department of Vocal Performance, University of Miami, Florida, United States**

A great deal of what makes college more difficult for educators is the lack of resources, students' apathy and a sense of powerlessness. Being creative in the face of the mentioned challenges can make a significant difference in terms of engaging students and moving forward. Blogging has been the medium through which I have been able to overcome lack of support. As an adjunct, I knew I was not going to have a budget at my disposal to bring to class the kinds of materials needed to teach arts. It was crucial I focused on those things I did have to impact my students in a positive way. Blogging allowed me to post my lesson plans, my videos and links, publish the work my students completed in class and keep our communication open to react to each other's creation. It allowed me to document and archive my work as well as my students' artistic production. Finally, it made possible for us to showcase the processes we experienced in class by inviting others to check our blog-link and see what we had. This study reflects on the use of blogging as an innovative pedagogical tool that provides faculty members and students with a viable way to cope with departmental budgetlessness, student disenfranchisement and professorial stagnation. I use my own students' reflections, a survey and secondary sources to dialogue with other researchers about the validity of blogging as an alternative teaching strategy that transcends physical borders, cultures and classes.

# Technologies in Learning

## **Cloud Computing: A Progressive Paradigm in the Scholarship of Teaching and Learning**

**Puleng Motseki, Lecturer, Department of Mathematics Education, University of South Africa, Gauteng, South Africa**

This paper explores the educational potential of cloud computing, and how it can be used in enhancing interactions between students and lecturers to better improve the teaching and learning process to advance the scholarship of teaching and learning (SoTL) in higher education. Espousal of the ideals of SoTL is considered a crucial approach for transforming the higher education context that is currently in a state of evolution because of advances in information and communications technology and the changing needs of students. This is a qualitative study in which a purposive sample of fifteen postgraduate students in the Department of Mathematics Education participated in. Data was collected through interviews. Thematic analysis was used to report the findings. Three themes emerged from the data analysis are: personal workspace, online collaboration, and convenient tool to engage in the scholarship of teaching and learning. The paper reports that cloud computing as an online platform can enable lecturers and students to practice the ideals of SoTL. Using the cloud approach in teaching and learning, everyone can work on the same document at the same time to make corrections and improve it dynamically in a collaborative manner. Cloud computing as an online tool has a significant place in higher education since the correct use of online tools can improve engagement among students and lecturers in a cost-effective manner. Although, there are security concerns, but they do not overshadow the benefits.

## **Understanding High School Teacher's Stance towards Integrating Information and Communication Technology in Classroom in South Africa**

**Khunjulwa Peter, Curriculum and Instructional Studies, UNISA, Gauteng, South Africa  
Mpho-Entle Modise, Lecturer, Curriculum and Instructional Studies, University of South Africa, Gauteng, South Africa**

This study explores the pivotal role of information and communication technology (ICT) in South African high school education, shedding light on its transformative impact within classrooms. Research has highlighted insufficient training and limited resources as factors blocking the successful adoption and usage of educational technologies in education. The study uncovers factors affecting high school teachers' attitudes towards ICT integration through an online questionnaire with closed and open-ended questions administered to educators in two high schools. Within the interpretivist research paradigm, the study is guided by socio-constructivist and TPACK theories. The study results show that even though many high school teachers were introduced and exposed to teaching with digital tools not too long ago—during the COVID-19 pandemic lockdown, however, most still would much rather use the traditional chalk-and-board method of instruction. The study recommends that policymakers prioritise comprehensive ICT training, advocating for a future where technology seamlessly integrates into the learning experience.

# Technologies in Learning

## **ICTs in the EFL Classroom: What Is (or Isn't) Part of the Curriculum for Pre-service Primary Teachers at Spanish Universities?**

**Francisco Pradas Esteban, English teacher, English Department, CEIP Miguel de Unamuno, Alicante, Spain**

The digital age has revolutionized most of the aspects of citizens' everyday lives and this directly affects educational systems because Information and Communication Technologies (ICT) have been integrated into the curriculum at all educational levels. Regarding foreign language learning, many studies support that ICTs contribute to positive development in terms of linguistic competence and foreign language acquisition. In relation to previous research considering the Spanish educational context, very few studies are published in this respect regarding English Foreign Language (EFL) and training for Primary pre-service teachers. This study analyzes the ICT and digital topics that are part of the curriculum for EFL in Primary Teaching Degrees across all Spanish Public Universities. This was done in order to evaluate if ICTs are given the necessary importance with regard to 21st century educational demands with the objective of facilitating foreign language learning. This research follows a descriptive - comparative method to detail what is or isn't being done at higher education institutions as for EFL primary pre-service teachers training concerning meaningful second language acquisition with the support and benefits derived from the inclusion of new technologies in the curriculum. The main findings shed light on whether university curriculums are coherent with 21st-century educational demands, or if there is a need to redesign them to fill the gap among education, job market requirements and students' needs.

## **The Influence of Digital Infrastructure on Learner's Choice of School: Social Justice Perspective**

**Prof Sylvia Sepeng, Associate Professor, Educational Leadership and Management, University of South Africa, Gauteng, South Africa**

COVID-19 has been a game changer, it pushed the inequality in schools further. It has plunged South African schools further into crisis, exposing how the country's education system continues to be shaped by the legacy of apartheid. Among others, access to appropriate teaching and learning digital infrastructure is a social justice issue and one of the important factors in improving the quality of teaching and learning is access to digital infrastructure. It is now clear that schools need flexible and resilient education systems as we face unpredictable futures. These digital infrastructures must not only be accessible but used effectively as well. Central to this paper is the argument that the lack of digital infrastructure is an injustice in the South African system of education and it hampers the quality of education and influences learner's choice. Pertinent literature was visited to capture the essence of continued learning during these unprecedented times. In doing so qualitatively this paper investigated the influence of digital infrastructure on learner's choice of school in seven selected schools in the District of Tshwane West (D15) located in Soshanguve area in South Africa. The study found that there is insufficient digital infrastructure. Parents and learners therefore choose to attend schools that have better e-resources. The study concluded that the Department of Education should ensure that adequate support and services are provided to the schools, and that an effective system of distributing e-resources is in place. Furthermore, principals need to take responsibility for raising funds and developing their schools.

# Technologies in Learning

## **Examining the External Markers' Experiences of Online Marking: Is There Alignment with the Reports Generated from the Invigilator App?**

**Thembeka Shange, Associate Professor, Applied English Language Studies, UNISA, Gauteng, South Africa**

This study explores the experiences and views of external markers on e-proctoring when the Invigilator app was used during online exams at a mega open and distance e-learning (ODeL) university in South Africa. It also sought to examine some of the cheating behaviours detected by the Invigilator App. Current research indicates that the few proctoring technologies that are available on the market remain largely untried and untested, thus the amount of research available on the external markers' experiences with the Invigilator app is limited. The study seeks to fill that gap by exploring the external markers' views on the app, and some of the student cheating detected by the Invigilator App. A qualitative approach was used involving seven ( $n=7$ ) external markers who participated in semi-structured interviews. Additionally, some documents were also downloaded from the Invigilator App to track some of the cheating behaviours detected by the App. The principal findings indicate that from the side of the external markers, there was support for e-proctoring even though they had little or no exposure to the Invigilator App. The screenshots taken from the Invigilator App confirmed some incidents of cheating on the side of the students, although in other instances the similarity reports from the Invigilator App showed inaccuracies. Future research should focus on how to reinforce a Virtual Professional Learning community between lecturers and external markers so that the two groups work together on maintaining online examination integrity.

## **Revolutionizing the Learning Canvas: Analyzing the Potential Impacts of Generative Artificial Intelligence in Fashion Design**

**Ngan Yi Kitty Lam, Lecturer, School of Fashion and Textiles, The Hong Kong Polytechnic University, Hong Kong**

The emergence of Generative Artificial Intelligence (GenAI) tool evokes human perception in education. There are some potential challenges and concerns about the use of GenAI tools. The exploration in the transformative potential of GenAI within the realm of fashion design education is crucial to the learning process. This paper examines the utilisation of GenAI in assessment with students' reflections on their experiences in the learning process through a detailed and diverse discussion with students. Providing insights and challenges of GenAI tools bring into the creative domain. It highlights the perceived benefits of GenAI in boosting design efficiency, fostering innovative thinking, and enhancing learning outcomes. In contrast, the study also illustrate student concerns and possible constraints on creativity. It also presents an enriched understanding of how GenAI's utilisation in fashion design education could shape the current curriculum and pedagogy, to alleviate concerns and leverage the advantages of GenAI. The outcome points out the need for a balanced approach in AI integration that complements traditional design skills, cultivating a new breed of fashion designers who are adept in leveraging both human creativity and artificial intelligence. The insights from this paper call on educators and the fashion industry to acknowledge the approach and to drive a more productive and inclusive future for fashion design education and practice.

# Literacies Learning

## Integrating American History and Culture: Engaging Young Minds Across the Curriculum

**Evgenia Berdesi, Student, PhD candidate, University of Patras, Greece**

This short-term, student-focused course was developed to enrich the English Language curriculum by introducing key aspects of the American culture and history such as the significance of Liberty, contributions of African-American personalities, an overview of the Native American history, and insights into the impact of immigration. It was created in an attempt to address a gap in the 6th-grade English curriculum of Greek primary schools, which predominantly focuses on British culture. It derives inspiration from the Study of the U.S. Institute for Scholars and Secondary Educators (SUSI) Fulbright program entitled "Liberty, Equality, and the American Dream-Democracy and Citizenship", which took place in Montana University in June 2022. Moreover, it employs an interdisciplinary approach, incorporating student-centered methods (e.g. the Task-Based Approach, the transformative learning theory, the technology-based learning, the project learning, and the group learning) and integrating Web 2.0 Tools to encourage students' critical thinking, creativity, collaboration, and communication. It involves varied tasks and independent reflective activities aiming to increase students' awareness of the American culture encouraging critical reflection on resources and fostering students' own interpretations of the facts.

## Teaching Design Thinking to Increase Social Justice Awareness and Information Literacy

**Peggy Bloomer, Assistant Professor, Graphic Information Design, Central Connecticut State University, Connecticut, United States**

In these projects, students use design thinking, study the impact of redlining on urban communities, raise their social awareness of the historical heritages of local places, and increase their information literacy. Projects are both student-centered and research-informed, as students create photobooks and data projects exploring the topics through data visualization to create visual stories that they share as presentations and exhibitions within the university. The assignments start with the 1940 HOLC map of New Britain, CT, old and current U.S. Census information, and a list of city neighborhoods supported by the resources in the university library. Project 1: Each student develops a route for a photo walk based on their research and takes photos that illustrate the design elements, principles, and characteristics of the communities. Students design and produce a photobook. Project 2: Students continue exploring the maps, images, census, and other data demonstrating the ways that social and economic policies shaped New Britain. Focus may include architecture, immigration, religion, poverty, crime rates, school funding, and changes within communities. Students create a large-format collage and an infographic showing their findings and connections. My presentation will show the progress and results of the projects and include portions of the class's collective reel of the neighborhoods. This additional version of their projects allows students to combine contemporary tools with traditional printed design and develop graphic design skills. The results of student surveys rate what they have learned from this assignment and are also included.

## **Exploring Hong Kong ESL Learners' Thinking through Classroom Dialogue and Self-evaluation in Asynchronous Online Discussions**

**Zenia Chan, Student, PhD in Education, University of Cambridge, Cambridgeshire, United Kingdom**

Classroom dialogue has been widely recognised for its intricate relationship with learners' cognitive development. Given the proliferation of technological advancements, studying the interactions among students and teachers learning ESL in a fully asynchronous online environment is deemed significant in extending teaching and learning beyond the confounds of the physical classroom. This qualitative study investigated how ESL learners in Hong Kong (HK) engage and think together in asynchronous online discussions using Padlet, a micro-blogging tool. A total of twenty-five students from a secondary school in HK shared their responses and reflections on news articles and conducted open-floor discussions on their opinions. Subsequently, they were invited to write self-evaluations to reflect on their discussion process. Five students were then invited to participate in semi-structured interviews, which aimed to gauge their thinking processes and responses during the asynchronous online discussions. The Scheme for Educational Dialogue Analysis was employed to code the online discussions, while thematic coding was used to code the interview transcripts. The findings indicated that online discussions enabled students to cogitate multiple viewpoints and explore other learning opportunities, enhancing the depth and breadth of their thinking. Participants were also able to internalise their co-constructed ideas and apply them in their own subsequent written responses. An increased self-awareness in evaluating their own understanding of the instructed content was also observed. The data thus shed light on the affordances of ESL instruction through asynchronous online discussions, as well as the potential of self-evaluation in developing and supporting students' thinking.

## **Exploring Root Causes for the Low Reading Literacy Levels in South African Primary Schools: An Analysis of the Progress in International Reading Literacy Study Reports**

**Jean Fourie, Senior Lecturer, Educational Psychology, University of Johannesburg, Gauteng, South Africa**

South African fourth grade pupils have continually achieved the lowest reading literacy results out of 50 participating countries in the Progress in International Reading Literacy Study (PIRLS) cycles. PIRLS assesses reading literacy in 11 official languages and benchmarks against international standards. Data were collected through analysis of the PIRLS reports. Findings show that in the 2006 and 2011 cycles, 58% of grade 4 pupils were unable to read for meaning. This increased to 78% in the 2016 cycle and to a staggering 81% in the 2021 cycle. Only 19% of fourth graders were able to recognise, locate and reproduce information explicitly stated in texts and make straightforward inferences. Pupils should have 'learned to read' by the end of third grade and acquired these basic reading skills that would enable them to 'read to learn' across school subjects. Yet these results imply that fourth graders are unable to 'read to learn.' The literacy crisis was exacerbated by the COVID-19 pandemic which interrupted conventional schooling with nationwide closures. We show that in 2023 pupils were lagging a full year behind the same-age pupils of 2019. Previously existing inequalities were aggravated as well-resourced, technologically advanced schools switched to online remote learning, whereas pupils in under-resourced schools simply stayed at home without continuing any education. The pandemic after-effects were detrimental to the least proficient readers which could have dire long-lasting consequences. We make recommendations for critical national policy and school practice improvements regarding timely, targeted literacy interventions to combat this literacy crisis.

## **Brush Away Truth Decay: Using media literacy tools to pre-bunk, debunk disinformation**

**Neal Haldane, Professor, Communication, Madonna University, Michigan, United States**

**Elizabeth Goulette, Associate Professor, Spanish, Madonna University, Michigan, United States**

**Veronica Riha, Professor, Biology, Madonna University, Michigan, United States**

We live in a media-saturated environment where avoiding disinformation is impossible and the marketplace of ideas is flooded with opinion disguised as fact. Media literacy training becomes even more paramount considering the amount of disinformation that will be generated both by humans and AI in the 40 countries with 2 billion people that are electing leaders in 2024. This session provides participants strategies to pre-bunk and debunk media disinformation. Citizens in a democracy need accurate and reliable information to function in a free society. Media literacy as a field dates to the 1970s and was designed to give citizens the tools needed to access, understand, analyze, evaluate and create mediated communication. Media literacy employs both quantitative and qualitative methods to determine the veracity of media messages. The session offers participants the opportunity to apply media literacy tools and strategies to evaluate real-world media messages. Engaging with a selection of tools will give participants a framework to use in their classrooms, workplaces and personal lives. A media literacy mindset is essential for citizens to make informed decisions about their lives, communities, societies and government.

## Morphological Properties of Czech Entrance Exam and School-leaving Texts

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The goal of this contribution is to present some morphological traits that characterize texts to be found in tests used as entrance exams and secondary school-leaving exams in Czechia. To this end, we make use of a newly compiled 16,000-word corpus amassing the exam tests from the 2019–2023 period. The texts are subjected to key parts of speech and key grammatical tag analyses, which determine whether there are differences among various types of exam situations (eight-year secondary school, six-year secondary school, four-year secondary school, secondary school-leaving exam). In addition to these, we study case and grammatical number distributions, and frequencies of prepositional cases, perfective/imperfective verbs, verb tenses, and the passive forms. We hypothesize that more advanced exam texts utilize more items of autosemantic parts of speech (e.g., nouns, verbs), more prepositional cases, and more complex grammatical structures. The research outcomes may be of use to test makers, teachers preparing children to pass the exams, and authors of didactic reforms.

# Pedagogy and Curriculum

## Dual Language Programs: Lessons Learned in the Trenches in the Past Three Years

**Lucia Buttaro, Coach, Center for Educational Innovation (CEI), New York, United States**

A successful dual language program is one that appreciates and supports the cultural, linguistic, educational and socioeconomic backgrounds of the students in our schools. These backgrounds need to be incorporated into the curriculum to make sure that our students receive the same educational opportunities as their peers. The believers in immersion hold that bilingual education causes the brain to be confused - a zero sum game where learning one language necessarily trades off with the capacity to learn another one. Many against bilingual education also hold the mistaken belief that the academic skills a child learns in one language, like the multiplication tables, will not transfer and that children must then relearn how to multiply once they are proficient in English. These beliefs may have been based on a crude understanding of how the brain works. Many more methodologically sound studies have shown that preserving one's heritage language is very beneficial for students. This study considers how three schools in New York City that were using a dual language language model (either a 90/10 or 50/50 model) and how did not provide authentic materials and translated texts that caused the children to be confused. For example, when geography was taught in Spanish the teachers indicated that there were seven continents instead of five, as is indicated in texts from central and South America; and they refer to "tooth fairy" instead of "El Raton Perez," etc.

## Understanding Teacher Educator's Meta-teaching Action: Meaning, Function and Practical Approaches

**Xiaoduan Chen, Professor, Department of Curriculum and Instruction in the Faculty of Education, Shaanxi Normal University, Shaanxi, China**

If the functions of teaching as a particular social activity serving for human cultivation, meta-teaching serves to examine whether the activity is planned purposefully, undertaken rationally and effectively, finished with expected result achieved and to repair problems found. Teacher educators are the pivotal players to improve the quality of teacher education. So, understanding the meaning, function and practical approaches of teacher educator's meta-teaching action are very important for improving the quality of teaching of teacher educational course. In this paper, we explore the definition of meta-teaching, functions of meta-teaching, fundamental aspects of meta-teaching, absence of meta-teaching in practice of teacher education course so far as teacher educators, meta-teaching action of teacher educators' classroom teaching, teacher educators' meta-teaching practical approaches, and meta-teaching action story as an experienced teacher educator.

# Pedagogy and Curriculum

## The Interplay between Pedagogical Content Knowledge and Teacher Beliefs in Hong Kong ESL Lesson Planning: A Multiple Case-study Approach

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Pedagogical Content Knowledge (PCK) and teacher beliefs are well-researched areas within the field of teacher cognition. Existing research has shown that they are highly influential in pedagogical implementation and the effectiveness of classroom instruction. Yet, few studies have attempted to bridge these closely related areas of research and extrapolate the intricate relationship between them, especially within the ESL context. It is argued that gaining a deeper understanding into the synergy between PCK and teacher beliefs is needed to fully make sense of teachers' decision-making processes that lead to successful ESL instruction. This multiple case study set out to investigate the PCK of Hong Kong ESL teachers and its interplay with their beliefs during lesson planning. Self-designed lesson plans and instructional materials were first collected. Participants were then invited to participate in a stimulated recall interview to share their experiences. The data was inductively coded, and attention was paid to aligning and cross-mapping teachers' PCK with their beliefs. Data show that participants exhibited extensive PCK, with content and pedagogical knowledge being the most activated knowledge domains. Dynamic interactions were also shown to exist between teachers' beliefs and their PCK. In particular, unilateral and integrative interactions between PCK, teacher beliefs, and lesson planning were generalised as the dominating types of interactions. The lack of awareness towards these interactions also revealed the urgent need to further develop teachers' awareness towards their own belief and knowledge systems in order to better understand their own decision-making as classroom practitioners.

## Accessibility at the Core: Developing DEI-Checklists for Rutgers University

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Jessica Mingoia, Student, PhD Candidate, Rutgers University, New York, United States

This paper contributes to the current discourse on accessibility in higher education by discussing a comprehensive set of diversity, equity, and inclusion (DEI) checklists developed for Rutgers University. This project has its roots within an advisory committee for the School of Graduate Studies and aims to reach various instructors all over the University. The study specifically delves into the presenters' exploration of what the development of a set of checklists entails but also what limits there are when creating comprehensible material for a large, diverse institution. We discuss which broad questions and specific requirements need to be navigated when thinking about DEI within the institutional realm of a big, research-intensive institution. Our case study addresses checklists for inclusive instruction, inclusive syllabi design, and inclusive assignments. We share insights into the unique challenges and opportunities encountered whilst developing these checklists, designed to be usable by instructors at all the different schools at Rutgers. Fostering an inclusive learning environment comes with unique disciplinary challenges as well, hence we will discuss our approach to creating checklists that are adaptable to individual needs and disciplines. This paper offers a multifaceted perspective on educational practice by presenting a valuable case study that aligns with supporting instructors navigating diverse learning and teaching environments.

# Pedagogy and Curriculum

## **Multimodal Format for Inclusive Literacy Instruction: Graphic Novels in the Curriculum**

**Francine Falk-Ross, Professor, Chair, School of Education, Pace University-New York, New York, United States**

With more widespread use of online and multimodal text, and evolving attitudes toward cultural and linguistic diversity, culturally responsive practice has continued to be an important consideration in classroom instruction. This paper describes research conducted in two consecutive middle grades education methods courses. Pre-service teachers were first asked to critically analyze traditional and graphic novels for explicit and implicit messages, and the sociopolitical themes. They then developed their own personalized graphic novel stories to include themes that addressed middle grades students' social and emotional needs (e.g., self-identity, empowerment, and resilience) and content area elements, and provide suggestions/models for positive resolution. The analysis activities heightened their awareness of the implicit messages communicated by texts and transformed their ideas for teaching and creating texts that consider diversity, equity, and inclusion.

## **Improving the Indirect Assessment of Globally Applicable to 21st Century Engineering Skills: A Re-examination and Re-design using Rasch Methods**

**Noela Haughton, Professor of Education, Educational Studies, University of Toledo, Ohio, United States  
Carmen Cioc, Associate Professor, Engineering Technology, The University of Toledo, Ohio, United States**

The goals of this study are to: examine the construct validity of an indirect self-assessment of essential engineering skills; and re-design of the instrument to improve the relevance of the questions. The survey was developed to support the assessment of the re-design of mechanical engineering technology (MET) core courses. Target coursework was third- and fourth-year Advanced Fluid Mechanics, Applied Thermodynamics, and Mechanical Design II courses, all part of a MET program. Curricular changes integrated active learning and assessment strategies, including problem-based learning (PBL) pedagogy, the Kern Entrepreneurial Engineering Network's 3C's; and additional use of indirect assessments (peer- and self-assessment) to guide further assessment and curriculum development. Each goal will be supported by the analysis of three years of longitudinal data from multiple courses. The current analysis will enable construct validation and re-design using Rasch Methods. The engineering design framework that helped to guide the development, validation, and the refinement of the survey is the classical engineering design model, an iterative process that engineers use for problem solving, ask, research, and imagine, plan, create, test, and improve. A supplementary step across the framework involves communication. In addition to the engineering framework, the authors superimposed the KEEN's 3Cs curiosity, connections, and creating value, and thus refined the survey to better emphasize the engineering skills the students need across the curriculum and before graduation.

## Analyzing Students' Co-opetition Profiles and Their Differences in Mutual Helping in Cooperative Groups

**Yung Ho Huang, Professor, Department of Education, National Taipei University of Education, Taiwan**

The purpose of this study is to analyze co-opetition latent profiles among students in cooperative learning groups and compare the differences in elaborated help-providing and help-seeking behaviors among students with different co-opetition profiles. The study involved 691 sixth-grade students with experience in math cooperative learning, who were administered the Goal Interdependence Relationship Scale and Mutual Helping Behaviors Questionnaire. The research results indicate that: (1) Students' co-opetition profiles can be categorized into six clusters, including High-cooperation & Low-competition, High Co-opetition, Moderate-cooperation & Low-competition, Moderate Co-opetition, and Individualism. (2) There are significant differences in elaborated help-providing behaviors among students from different co-opetition clusters. Specifically, the High-cooperation & Low-competition cluster exhibits significantly higher levels of elaborated help-providing behaviors compared to other clusters, followed by the High Co-opetition cluster. (3) There are significant differences in elaborated help-seeking behaviors among students from different co-opetition clusters. The High-cooperation & Low-competition cluster and High Co-opetition cluster exhibit significantly higher levels of elaborated help-seeking behaviors compared to other clusters. The implications of the study are as follows: Students in cooperative groups exhibit different co-opetition profiles. Students with a higher inclination towards cooperation tend to demonstrate higher levels of elaborated help-providing behaviors, while those with a higher inclination towards both cooperation and competition tend to exhibit higher levels of elaborated help-seeking behaviors. Therefore, the focus of cooperative learning design should be on maximizing students' cooperative tendencies, while acknowledging that competitive tendencies can have positive impacts on mutual helping behaviors.

# Pedagogy and Curriculum

## **Innovative Education and Students' Cognitive and Non-cognitive Skills: Evidence from Field Experiments in China**

**Lu Liu, PhD Candidate, Economics, Tsinghua University, Beijing, China**

In the face of significant advancements in generative AI and large language models (LLMs), which have substantial economic, social, and policy implications, it is crucial to prioritize educational domains where human attributes, such as creativity, remain unparalleled by AI. This research project aims to enhance creativity among students in rural primary schools in China through an innovative educational program. The program features a free after-school course that integrates principles of analogy-based learning to cultivate creativity. Analogical reasoning is crucial for enhancing creativity. Analogy is a sophisticated process used in creative discovery, whereas similarity is a more basic perceptual process shared with the entire animal kingdom (Gentner & Markman, 1997). Analogy is central to the creative process (Stojanov & Indurkhy, 2013) and has been shown to both measure and enhance creativity (Beaty & Johnson, 2021; Kao, 2020; Kao, 2016; Silvia & Beaty, 2012). Higher analogy is associated with better performance in creativity tasks, indicating a positive relationship between analogy and creativity ability (Kenett et al., 2018). The study is divided into three components: an online research component (Study 1), an offline summer school (Study 2), and a semester-long course in several schools (Study 3). We will assess both the short-term and long-term influences of the program on children's abilities, including immediate progress following the program and sustained impacts on their creativity and cognitive skills over time. Additionally, the study explores the program's cost-effectiveness and mechanisms for scalability.

## **A Comparative Study on the Implementation of Mathematics Content and Language Integrated Learning Instruction in Taiwan: Subject Teachers versus English Teachers**

**Yen-Hui Lu, Associate Professor, Department of Applied Linguistics and Language Studies, Chung Yuan Christian University, Taiwan**

Due to the nascent status of content and language integrated learning (CLIL) as an instructional approach in Taiwan, empirical research targeting mathematics CLIL teaching remains limited. The aim of this study is to address this gap by examining the differential instructional approaches employed by subject teachers and English teachers, with each group having distinct educational backgrounds and teaching experiences. Employing a case study methodology, this research focused on the institutional practices of two subject teachers and two English teachers engaged in mathematics CLIL instruction. Data were collected from multiple sources including classroom observations, field notes, video-recorded discussions, and in-depth interviews. These data were subsequently analyzed through the lens of the 4Cs framework: content, communication, cognition, and culture. The ultimate objective is to provide valuable insights that may inform the pedagogical strategies of future bilingual educators and teacher-trainers.

# Pedagogy and Curriculum

## Harnessing the Superpower of Belonging: Using a Three-strand Approach to Transform Student Success

**Sarah Hurd, Student, Masters of Education, Curry College, Massachusetts, United States**  
**Amy Leshinsky, Director of Graduate Education and Assistant Professor of Graduate Education, Graduate Education, Curry College, Massachusetts, United States**

In the vast expanse of educational discourse within public K-12 classrooms, enduring challenges such as inadequate classroom management, disruptive student behaviors, and the persistent struggle for inclusive practices continue to impede student engagement and academic success. These obstacles serve as poignant reasons for a paradigm shift towards nurturing a deeply rooted sense of belonging among students. An element that continues to rise up as panacea to these issues is the concept of belonging. In this context "belonging" indicates a sense of inclusion and connection fostered within educational environments, characterized by equitable valuing of diverse perspectives and active engagement in the learning journey. Cultivating a culture of belonging that positively impacts student success is an ongoing exploration of self and strategies. Students from historically marginalized groups are poised to benefit most from the creation of classroom cultures rooted in belonging. Through this research, a conceptual model was developed that explores the superpower of cultivating belonging in K-12 classrooms. Central to this model is the strategic alignment of teacher positionality, the implementation of responsive classroom management methodologies, and the adoption of culturally sensitive pedagogical approaches. Through a deliberate emphasis on inclusivity and the equitable valuation of diverse viewpoints, educators possess the capacity to construct environments wherein students feel not only enfranchised but also ardently engaged in their educational trajectory. Towards this end, a comprehensive three-pronged strategy for student success emerges: the conscientious positioning of teachers, the masterful deployment of responsive classroom management tactics, and the conscientious embrace of culturally responsive instructional frameworks.

## Teaching Immigration in the Classroom - an American Experience!

**Kazi Hossain, Associate Professor, Education, Millersville University of Pennsylvania, Pennsylvania, United States**

The topic of immigration has become a controversial subject across Europe like that in the United States. Immigrants have become the target of many negative feelings among certain sections of the population both in Europe and America. These feelings also affect children in the school settings and therefore, impact their learning directly or indirectly. This study shares an American experience of college faculty who have successfully implemented strategies to teach immigration in the classroom in a positive manner.

# Pedagogy and Curriculum

## **Teachers Experiencing Flipped Classroom Approach to Understand Socio-constructivist Learning**

**Christina Lim-Ratnam, Senior Lecturer, Policy, Curriculum and Leadership, National Institute of Education, Nanyang Technological University, Singapore**

Though Singaporean teachers are familiar with the catchphrases of socio-constructivist learning, many are relatively unfamiliar with its epistemological difference from their deeply entrenched habits of pedagogic thinking. This is because the roots of our educational heritage do not stem from the socio-constructivist paradigm. In this paper, I present how the flipped classroom approach in a post-graduate degree course (Masters in Education) provided the platform for students who are practicing teachers to experience socio-constructivist learning. The data is drawn from reflections of over 80 students over four semesters. Having experienced socio-constructivist learning through the flipped classroom approach in this post-graduate degree course, these teachers reflected on their epiphanies and realizations of misconceptions of socio-constructivism in their own teaching. I also highlight how the structure of the course brings out the necessary conditions to effectively scaffold socio-constructivist learning.

## **Bringing Ethics into the Introductory Finance Curriculum: A New Approach**

**Valeria Martinez, Associate Professor of Finance, Finance/Dolan School of Business, Fairfield University, Connecticut, United States**

Despite many years of bringing ethics to the forefront as crucial to doing business, we still see the need for improved ethics instruction and behavior among business professionals. Current research indicates there is a need for innovative pedagogy in business ethics. This study introduces an innovative ethics pedagogical tool in the undergraduate introductory finance classroom. The objective of this pedagogical innovation is to improve ethics education among future business professionals in the finance field by increasing students' ethical awareness in the business-finance world. The new ethics pedagogical tool consist of introducing students to a series of practical and concise questions that guide them through the analysis of the ethics of a finance situation. Students then use this series of questions during the semester of our introductory finance course to analyze the ethics of various financial situations that occur in the news during the time of our course. I assess the effectiveness of this tool by analyzing students' ethical perceptions before and after the ethics pedagogical tool is implemented in the introductory finance classroom.

# Pedagogy and Curriculum

## Comparative Education for Competitive Learners

**Mamalatswa Maruma, Director, School of Education, University of Limpopo, Limpopo, South Africa**

In South Africa e-education and multilingualism is a national development priority in a multilingual society. It is viewed as a national project geared towards attaining and sustaining qualitative education. The acquisition of literacy and multi-literacies is critical for participation in the global world. There is a need to develop cultural competency skills to enhance the ability to practice effective communication in intercultural situations. Collaborative use of digital technology and cultural competency are the best approach to enhance effective and appropriate interaction with people of other cultures. As a social transformation strategy, there is the intention to ensure that educational imbalances of the past are redressed and that equal educational opportunities are provided for all sections of our population. This paper explores the effect of the current education on learners. The study was qualitative in nature within the interpretivism paradigm. Research instruments, namely interviews, classroom observation and document analysis were used to collect data. The study recommended that as the design and the scope of the e-education and multilingualism are multidimensional, they need to be clearly captured in language policies, clearly spelt in the curriculum and teaching modules and be adequately financed for effective implementation for desired outcomes.

## Primary Health Care Curriculum: A Case of Practical Work at a TVET College

**Safura Meeran, Associate Professor, Curriculum and Instructional Studies/College of Education, University of South Africa, Gauteng, South Africa**

With the advent of COVID-19 and trying to survive to prevent the spread of this disease, the Primary Health Care sector has come into the spotlight. Primary Health Care (PHC) is a programme offered by the Technical Vocational Education and Training (TVET) sector. Currently, many graduates still struggle to find occupation in PHC. This prompted the researchers to explore students' experiences in the vocational subjects of Primary Health Care at a TVET college in order to understand why there were limited employment in the field of PHC for graduates at this college. A The study uses Sen's (1980, 1999) Critical Capabilities Approach (CCA) which focuses on working opportunities, skills, and intervention. The case study research design was used in this study, which was based on the qualitative approach. 30 students in their third- and fourth-year level were purposively sampled. To capture the participants' experiences on the relevance of vocational subjects at a TVET college, semi-structured, and focus group interviews were conducted. Findings indicate that programme is more academically inclined rather than being vocational, students need for practical work was ignored and there was a lack of resources to cater for vocational activities. The implication for this study is to highlight the plight of the PHC students in order to improve the offerings of the programme. Future research endeavours include exploring the actual practical experience students derive from the PHC programme.

# Pedagogy and Curriculum

## **Building Lateral Capacity with the Schoolwide Pedagogy: Privileging the Voice and Agency of Teachers**

**Wendy Mockler, Virtual Learning Coordinator, Teaching and Learning, Catholic Education Canberra**

**Goulburn, Australian Capital Territory, Australia**

**Shane Giles, Principal, Lumen Christ Catholic College, Australia**

Innovating in a school using top down or bottom-up strategies is problematic. There needs to be proactive roles for teachers, recognising the power of the collaborative capacity of the organisation by investing in the suprastructure of coexisting communities of practice in a developmental, generative model. The schoolwide pedagogy (SWP) is a visible and discoverable "articulation of shared values, beliefs and pedagogical practices within a school community in support of the school's vision" (Conway & Abawi, 2013, p. 3) that strengthens identity within the community. It is shared understanding of a learning community's pedagogical priorities and is anchored in authoritative pedagogies. It highlights the commonalities in this domain, drawing the community all together in a community of practice. School cultures are not usually resistant to collaboration and a shared understanding of practice but neither do they seek it. The SWP breaks the isolation and plateauing, and can move a school towards a constructive reflexive practice. Critical in that change is the Gifts program that supports teachers to be innovative. The Gifts program builds authentic relationships as teachers become conscious of who they are as a teacher and how they contribute to a schoolwide pedagogy. Conway, J., & Abawi, L. (2013, July). Creating enduring strength through commitment to schoolwide pedagogy. *Improving Schools*, 1-11.

## **Teaching Speaking Skills in the Primary School TESOL classroom: The Case of Cyprus**

**Maria Papapolydorou, Adjunct Lecturer, Education, University of Nicosia, Cyprus**

Speaking has historically been overlooked in the L2 classrooms as it was thought to have less prominence compared to reading and writing (McDonough, Shaw and Masuhara, 2013). This perception was gradually changed by the advent of the communicative approach. Speaking skills – like listening ones – are now acknowledged for the important role they exercise in SLA processes. As a result, a lot of curricula strive to give speaking skills a central role. This paper explores the role of speaking skills within the Cypriot Primary School Curriculum of English. It focuses on some of its strong points, pinpoints some of its limitations and suggests possible ways forward. English teachers in the Cypriot primary schools are encouraged to support students' oracy development. Teacher guides and lesson plans as well as recommendations offered to teachers during on-service training sessions put particular emphasis on developing students' speaking within a broader communicative approach. Consequently, primary school students in Cyprus are invited to speak at several parts of the lesson and their active participation is adamant in the way the lesson plays out from beginning to end, offering, thus, ample opportunities for practice. Yet, consistent with international research (Derwing and Munro, 2005; Nair, Krishnasamy and De Mello, 2017), pronunciation does not appear to be actively incorporated in the teaching of oral skills in Cypriot Primary School TESOL classrooms. Pronunciation is only implicitly taught via 'listen and repeat' exercises but children are not made aware of any processes of pronunciation improvement.

# Pedagogy and Curriculum

## **Network of Experiences for Transformation: Initiating the Development of a Collaboratively Designed Intercultural Curriculum in Chiapas**

**Perla Suazo, Professor, Escuela Normal Indígena Intercultural Bilingüe Jacinto Canek, Chiapas, Mexico**

This text initiates a reflection on the development of an intercultural, critical, and collaborative curriculum, drawn from the insights gleaned in a doctoral research thesis. We believe that this curriculum could serve to enhance the educational landscape for indigenous communities in Chiapas through the framework of standard education. The research method employed was biographical-narrative, engaging 8 co-researchers who shared their academic journeys in indigenous education from preschool through their higher education at the normal school. Among them were 4 teachers and 4 trainee teachers pursuing bachelor's degree in Intercultural Bilingual Preschool or Primary Education (K-6) at the only Intercultural Bilingual Indigenous Normal School in Chiapas named "Jacinto Canek". Key findings revealed that intercultural education curricula in higher education has failed to incorporate the perspectives of the students themselves and lack content for them to effectively address diversity in practice. Specific gaps were identified in addressing the needs of multigrade groups and providing adequate preparation for indigenous children to receive truly bilingual education. Likewise, teachers who are sent to these communities must deal with the diversity they encounter in the classroom, and their preparation does not provide them with the foundations to address issues of children with special needs, gender issues, among other challenges for inclusive education.

## **First Past the Post – Education for Adults in a Post-pandemic, Post-colonial, Post-modern Globalised Higher Education Sector**

**Rob Townsend, Managing Research Director, Social Work, Naturally Gifted Research & Associates, Victoria, Australia**

The Asia-Pacific is becoming the most expansive higher education region for adult based education services, ranging from New Zealand in the south to the border of the Russian Federation, and including the growth regions of China, India, and the Middle East. Professional education in the sciences, IT, health, social work, and wellbeing disciplines are expanding rapidly in this region and across the globe. The globalization of health and social issues is challenging professional education and accreditation processes to adjust to producing higher education graduates who are global professionals, that is, multi-lingual, culturally responsive, able to work at diverse community contexts and network with local and global organizations and resources to create social and economic change. This paper outlines the development of new curriculum frameworks for post-modern, post-colonial, and now post-pandemic international education sector that attempts to meet the challenges of intercultural learning and skills development for this new plurilingual context. The ethnographic study reveals that in the Asia-Pacific region, education organizations and educators are developing globalized, internationalized curriculum when motivated and supported to do so. The COVID-19 pandemic has facilitated a new level of understanding, motivation, and context to designing globalized curriculum for adult-based lifelong learning content, processes, and outcomes in higher education.

# Pedagogy and Curriculum

## **Something Old, Something New, Something Borrowed . . . We Must Preserve It, Too! Second Language Pedagogy and Preservation in an Age of Endangered Historical Record**

**Nancy Wright, Adjunct Faculty, Political Science, Pace University, New York City, New York, United States**

The image evoked by the title suggests a comparison with a wedding, and indeed, like family and friends gathered for a wedding ceremony, a number of converging trends signal new chapters whose antecedents and ancestors provide the foundation for the present, and thus must not be lost from historical record. Among those signaled is a need both to reappraise language pedagogy, also identified as applied linguistics, and to focus on more effective ways to preserve endangered languages. This paper examines the original Grammar-Translation Method (GTM), long criticized for an alleged lack of relevance to authentic language use, with the argument that this ostensible irrelevance is not substantiated, but rather is the result of a neglect to include the history of language in applied linguistic curricula. The paper further examines two other phenomena that underscore the importance of a detailed awareness of linguistic history. One is a paradoxical comparison of ancient languages that relied on symbols more than words, with the symbols, such as emoji, used in much communication today. The other is the preservation of endangered languages. Regarding the latter, the paper presents not only the problem of endangered languages, but the various ways in which they are and can be preserved, such as the tradeoffs between an archival preservation of the written language, including its grammar and history, even if no one remains to speak the language, and a more diffused preservation effort that sustains the spoken language, but may not sustain the language's structure and history.

# Learner Diversity and Identities

## Parental Motivations for Homeschooling in the United Arab Emirates

**Reem Al Dhaheri, Assistant Professor, College of Humanities and Social Sciences / Department of Education, Zayed University, Dubayy, United Arab Emirates**

Homeschooling in the United Arab Emirates (UAE) is relatively new, and empirical literature on the nature and outcomes of this approach is very limited. This study fills this gap by exploring parents' motivations in the UAE to homeschool their children. The study used a cross-sectional survey design. Ninety-seven homeschooling parents from 27 different nationalities living across the UAE completed the survey. Descriptive data analysis provided insight about homeschooling families' and the reasons for homeschooling in the UAE. The results show that the main reasons parents in the UAE homeschool their children are 1) the desire to strengthen family bonds, 2) concerns over the school environment, 3) dissatisfaction with academic instruction, and 4) the desire to provide moral instruction with religious foundations.

## A Difference or a Disability: Views of English Language Teachers on Second Language Learners in the United Arab Emirates

**Sana Al Maktoum, Assistant Professor, Education, Zayed University, Dubayy, United Arab Emirates**

The rise of the English language and its wide use globally made it a necessity in schools worldwide. In the United Arab Emirates (UAE), English is taught alongside Arabic, with the former now gaining dominance and perceived as the lingua franca in a country where 88.52% of the population are foreigners. This causes issues in diverse educational contexts whereby English educators may subsequently ignore the cultural capital of English language learners, for example, leveraging on students' first language in the classroom to aid in instruction. This study explores how English teachers' lack of cultural and linguistic reflection in class hampers learning a second language and is especially critical when labeling a student as having a disability rather than a difference. Utilizing semi-structured interviews with nineteen schoolteachers in public and private schools in the UAE, results indicate that schoolteachers rely on traditional assessment to differentiate learners, and few depend on other culturally-responsive measures and adaptations in class. The study calls for action from the groundwork, practitioners, curriculum developers, and governmental entities to reconsider the potential implications of language, identity, and the everyday learning of second language learners.

# Learner Diversity and Identities

## **Developing Intercultural Competencies in a Digital Age in Higher Education in South Africa: Cultivating Global Dialogues**

**Naziema Begum Jappie, Director, Center for Educational Assessments, University of Cape Town, Western Cape, South Africa**

Intercultural competencies and the digital platform is intwined in the fabric of teaching, learning, and assessments for student success in higher education. These are integral to virtual learning and exchange within higher education that are expected to develop these competencies. However this is not always the case because these are not always explicitly integrated into the academic agenda. Universities in South Africa are regionally and globally engaged through collaborative research, international students and exchange programmes but it is not enough to have these students engage on a specific topic, expect them to develop intercultural competencies. The development of intercultural competencies must go beyond academic engagements, integrating social justice issues into developing cultural competency that will enable students to develop their intercultural competencies. This model adopts an intersectional perspective which recognizes that social identities interact to shape people's sense of themselves and their experiences. If activities and skills to improve students' intercultural competencies are not purposefully infused into the face to face and digital learning platforms, then developing these competencies and expected outcomes will not be achieved. This research is aimed at assessing whether the integration of these competencies as a teaching and engagement strategy to deliberately infuse intercultural activities into the digital platform, contributes to the development of intercultural competencies in students at universities' in South Africa. The findings are relevant for higher education academics and internationalisation practitioners interested development of students' intercultural competencies.

## **The Role of Self-Efficacy on Discrimination and Satisfaction with Life of Migrant Children and Adolescents**

**Alejandra Caqueo-Urízar, Professor, Centro de Justicia Educacional CJE, Pontificia Universidad Católica de Chile, Región Metropolitana de Santiago, Chile**

The aim of this research is to report the relationship between discrimination and life satisfaction in migrant children and adolescents in Chile, and how self-efficacy mediates the relationship between discrimination and life satisfaction. Two studies were conducted with 494 migrant children and adolescents in Chile (Study 1, n=292; Study 2, n=202), their ages ranged from 9 to 18 years (Study 1, ME=12.30, SD=2.57; Study 2, ME=12.57, SD=2.51). Of the participants 50% were female (Study 1, n=143; Study 2, n=104) and 50% male (Study 1, n=149; Study 2, n=98). The first study investigates the relationship between Discrimination and Life Satisfaction. The second study replicates this association in a different sample, but including, in addition, Self-efficacy as a mediating factor of this relationship. In both studies, structural equation modeling was used to estimate the proposed relationships. The estimation method used was robust weighted least squares estimation. The estimated models indicate that discrimination is negatively related to Life Satisfaction and that this relationship is partially mediated by the Self-Efficacy of migrant children and adolescents in Chile. According to these findings, less discriminated children and adolescents could develop a more robust self-efficacy, allowing them to perceive higher levels of life satisfaction.

# Learner Diversity and Identities

## **Integration and Inclusive Education: How to Integrate Students during the Process Migration in Brasil x Portugal?**

**Gabriela Da Silva Duarte, Student, PhD Student at Minho University, Minho University, São Paulo, Portugal**

We discuss the historical emergence of so-called universal rights, in the historical context from the Enlightenment to current global neoliberalism. One of these is the right to education. The aim is to clarify the scope of the universality of education, in particular that of access and academic success for immigrants in Portuguese schools. To this end, we investigate the approach of integrating students into these institutions. This serves as a basis for putting the teleological question of education into perspective, in terms of its formative, socialising and subjectivising functions. We gain an understanding of these reflections through interviews and content analysis, using a qualitative approach, with basic education students in the Portuguese system, after having studied the same in Brazil. This research project is justified by the plan to study for a PhD in Educational Sciences at the University of Minho in Braga.

## **Awareness of Spiritual Giftedness in Advising to Reduce Equity Gaps and Improve Retention: Removing the Stigma of Ancestral Giftedness as an Academic**

**Onalenna Valerian Diphoko, Academic Success Coach, Department of Student Affairs, University of Pretoria, Gauteng, South Africa  
Ida Meyer, Academic Success Coach, University of Pretoria, South Africa**

The guidance and support of South African students experiencing ancestral callings and their customs needs more research and transformation in institutional advising and support practice to close the equity gap and improve academic success as a correlation. In the process of creating an institutional advising and support system for this cohort of students, it should improve their sense of belonging. This is of importance, since in our own advising experience at the University of Pretoria these students often feel isolated – feeling misunderstood and not knowing where to turn for (culturally related) support. Furthermore, two of the main aspects of identity development (the developmental age of most students entering university) is self-concept and self-esteem. Being aware of the African identity in this aspect in advising and support is therefore not something we could keep ignoring. Through our advising experiences we have realized recently that there are many African students dropping out of university related to ancestral calling not being understood. Often, they give their reason for deregistration as “mental health/health issues”. We have experienced the same in our exclusion processes. Our proposed intervention in this relatively new field thus focuses on the importance of an institutional and specifically an advising and support system awareness of this growing cohort of students as a success measure to reduce the equity gap, which should increase retention and academic persistence in record time.

# Learner Diversity and Identities

## **Connection and Belonging: Citizenship and Identity in the Primary English Classroom**

**Ana Patricia Ferreira, Lecturer, Languages, ESE, Polytechnic Institute of Porto, Porto, Portugal**

Teaching English as a foreign language may be seen as a vehicle for the fostering of a sense of belonging and connection, for sharing a social and cultural heritage, for creating and strengthening the notions of identity and citizenship among young learners. This teaching / learning process, when enriched with intercultural and plurilingual factors, digital resources and opportunities for reflection and discovery of self and of "the other", may lead to a growing self-knowledge, greater reflexive capacity and critical spirit.

## **Promoting Learner Diversity and Identities through Collaborative Book Creation: A Case Study on the Book "O Mundo de Elisa: Amizade, Inclusão e Cidadania" [Elisa's World: Friendship, Inclusion and Citizenship]**

**Nuno Fraga, Professor, Departamento de Ciências da Educação, Universidade da Madeira, Região Autónoma da Madeira, Portugal**

**Roberto Alves, Teacher, Conservatório-Escola Profissional das Artes da Madeira – Eng. Luiz Peter Clode, Madeira, Portugal**

This case study presents the creation of "O Mundo de Elisa: Amizade, Inclusão e Cidadania" [Elisa's World: Friendship, Inclusion and Citizenship], a collaborative project by students at the Conservatório - Madeira Professional School of the Arts. The project aimed to foster learner diversity and identities, particularly supporting a student living with Bethlem myopathy. The process engaged students in discussions on inclusion and diversity, drawing on the philosophies of Dewey (2005), Eisner (1995, 2002) and Meirieu (1998) to emphasize experiential learning and the transformative power of art education. Students' engagement with Elisa, who contributed to the book using an iPad, underscored the importance of imagination in overcoming difficulties and exploring diverse cultures. The students wrote chapters on themes such as bullying, discrimination, and entrepreneurship, inspired by their interactions with Elisa. The project underscores the transformative power of inclusive education (UNESCO, 2021; ONU, 2015) and the potential of pedagogical innovation to foster empathy, understanding, and social skills among learners. The public presentation of the project at the Funchal Book Festival in 2023 demonstrated the tangible impact of this pedagogical approach. In conclusion, this case study underscores the potential of innovative teaching methods to foster learner diversity and identities, promoting social justice, multicultural understanding, and tolerance. It affirms Freire's principle that reading the world precedes reading the word (Freire, 1989), highlighting the importance of understanding the diverse contexts and visions of our students.

# Learner Diversity and Identities

## **Deconstructing Cultural Curriculum: A Creative Exploration of Inclusion and Learning**

**Shirley Gillett, Tutor, Disability Tutoring Services, University of Otago, Otago, New Zealand**

My background is as a New Zealander, currently both a classroom teacher and a university tutor teaching students who will become teachers. In New Zealand much work has been done in schools regarding identity in particular addressing colonialisation and indigenous people and advocating for and developing a bicultural approach to curriculum and practice. More recently New Zealand is an increasingly diverse country ethnically and there has been a development in understanding the comprehensive influence of culture and language on learning. A contemporary model referred to is Mason Durie's wellbeing (Haora) model "Te Whare Tapa Whā" of a house with four walls: self-care in four key dimensions of well-being: mind (mental/psychological), body (physical), heart (emotional), and spirit (spiritual/essence). I would be keen to engage people in thinking about and sharing their experiences of different ethnicities and learning. The workshop would be café style with participants in groups considering the ways their situation and culture approaches pedagogy in their ongoing day to day classroom strategies and values. Questions addressed such as: What specific approaches to enabling the integration of various cultures and cultural competencies do you use in the classroom? How do you teach and incorporate different values and lived experiences of the classroom learners? How do you in your country classroom teach empathy and acceptance? The output from this would be a series of the participants' experiences regarding creative approaches and equity for different learners and styles to be put together in a paper combining the similarities and differences.

## **What Do Primary School Teachers Need in Their Training to Address Diversity?: A Concept Mapping Study with University Professors**

**Belén González Laguillo, Predoctoral Researcher, Department of Arts, Languages and Physical Education Didactics, Complutense University of Madrid, Madrid, Spain**

**Silvia Carrascal Domínguez**

**Joanne Mampaso Desbrow, PhD. Professor, Universidad Camilo José Cela, Spain**

Diversity is an inherent characteristic of human beings. However, it has not been taken into account in education until recently. Today, attention to diversity and inclusive education is a legal and moral imperative at the international level and teacher education is one of the most important ways to achieve it. The aim of this study is to find out the opinion of teacher educators in this field of research on what primary school teachers need in their training to be able to deal adequately with student differences. Concept Mapping methodology was used, a mixed group technique in which these needs were identified, rated according to their importance and categorised into groups. According to the professors, there is a need for teachers to be aware of pedagogical practices that have been shown to be effective in student learning, as well as active and flexible methodologies that respect and encourage diversity. It is concluded that practical and experiential training is the area considered most important in teacher training for inclusion, followed by theoretical knowledge about diversity.

# Learner Diversity and Identities

## **Combatting Learner Challenges in a Rural School: Aspirational Capital as a Tool for Navigating Diverse Social Spaces**

**Emma Groenewald, Lecturer, Education, Sol Plaatje University, Northern Cape, South Africa**

The study focuses on how learners in a rural school use aspirational capital to overcome challenges and ensure academic success. In bridging the gap between the community space and the school space learners make use of various forms of capital to ensure successful navigation in a new space. Aspirational capital is acquired through individual experiences within specific contexts. This resilience enables learners to achieve goals amidst challenges. The study is guided by the central research question: How do learners utilise aspirational capital to address learner challenges and ensure academic success? Two learners, a Xhosa boy, and a Nama girl, were chosen as participants for the study. Data was generated through four semi-structured interviews. The narratives gave insight into how the participants used aspirational capital in the navigation of the new school context. A social constructivist paradigm was followed to capture the participants' unique experiences. The data was analysed using Appadurai's (2004) capacity to aspire, Yosso's (2005) model of cultural wealth in communities, and Somers' (1994) narrative identity as theoretical lenses. The data is presented under the following themes: the learners' community narratives focusing on their personal aspirational experiences, their school narratives linked to aspirations within the school context, and navigation using aspirational capital. The analysis of the narratives indicates that learners with the capacity to aspire effectively utilise resources to unfold a culture of possibility and act as agents of change.

## **Advising Students with Intellectual Disabilities: Supporting Successful Academic Campus Integration**

**Michael Houdyshell, Associate Professor/Program Coordinator, College of Education, Florida Gulf Coast University, United States**

As more Students with Intellectual Disabilities (SWIDs) enter higher education, the number of on-campus programs supporting these students is increasing. In particular, these on-campus postsecondary programs are working with academic advisors to support and increase the successful academic integration of SWIDs on campus. Research has shown how academic advising increases retention, graduation, and overall student success for students, and SWIDs should be no different. This paper presents data gathered from a study on the experiences of SWIDs working with academic advisors, in particular how advisors are key to supporting their success. Data from this study contributes to the lack of research on how best to support the success of SWIDs within the academic advising community in higher education.

# Learner Diversity and Identities

## Social Justice and the Language Curriculum: Toward Racial, Religious, and Gender Literacies

Gabi Kathoefer, Associate Professor of German, Languages, Literatures and Cultures, University of Denver, Colorado, United States

This paper discusses the changing role of second language learning in higher education in the U.S. While language learning is still part of the general education requirements for undergraduate students at many institutions, colleges closed more than 650 foreign language programs between 2013 and 2016, according to a 2019 report from the Modern Language Association. This dramatic development has initiated a heated debate on the cultural and social significance of language education. While many scholars point out the importance of multilingualism and intercultural competence in today's globalized and interconnected (business) world, this paper focuses on social justice education as the core of language learning. More specifically, this paper concentrates on the development of racial, gender, and religious competencies as key skills not only for intra- and interpersonal awareness but also for interpersonal and intercultural communication, locally and globally. On the one hand, this includes a reflection on the diverse racial, gender, and religious identities of learners in the classroom and the ways in which their identities influence individual learning as well as interrelationships among students. On the other hand, it calls for a language curriculum transformation that centers on inclusive excellence, diversity and critical literacies.

## Inclusion in Occupational Therapy Education: An Exploration of Supports and Barriers

Anne Kiraly Alvarez, Program Director and Associate Professor, Occupational Therapy, Midwestern University, Illinois, United States

Arielle Ramirez, Occupational Therapy Practitioner, Department of Diverse Learners Supports and Services, Chicago Public Schools, Illinois, United States

The purpose of this study was to identify the supports and barriers to inclusion in occupational therapy (OT) education in the United States from the experiences of OT students from historically marginalized groups and the perspectives of OT faculty/staff. The authors used a convergent mixed methods design for the study, which consisted of an online survey and semi-structured interviews. 131 students and 35 faculty/staff completed the survey, while 20 students and 11 faculty completed interviews. Five themes emerged from the data: 1) Barriers and facilitators exist while exploring OT as a potential career; 2) There are pros and cons to the OT admissions process for students from historically marginalized groups; 3) Students from historically marginalized groups experience varying degrees of exclusion and a limited sense of belonging within their OT programs; 4) Many OT programs have good intentions to promote diversity and inclusion through various efforts; and 5) Some OT program efforts may be counterproductive, and more actions must be taken to further promote inclusion and address barriers to inclusion. Numerous supports and barriers to inclusion in OT education were identified within these themes. Findings indicate that despite numerous inclusion efforts, students from historically marginalized groups continue to experience several barriers that impact inclusion in OT education. Based on these findings, the presenters provide strategies to promote and advocate for inclusion not only in OT programs, but across other professional and graduate programs as well.

# Learner Diversity and Identities

## **How 'Mothering' Affords Learning for Students in Boma Girls' School: Construction of Positional Identities as a Mediator for Learning**

**Serah Kivuti, Student, Doctoral Candidate, University of Wisconsin-Madison, Wisconsin, United States**

Informal learning has a significant impact on formal learning spaces despite the changes in its content, mode, and focus over time. In this context, I examine the case of Boma Girls High School, where informal learning takes place through a peer mentoring program that involves senior students mentoring new students and helping them adjust to school life. Through interviews and observations, I explore how 'mothering' creates a fertile space for learning and identity development. I discuss how students use cultural artifacts to perform various positional identities, which leads to changes in their behavior and knowledge. By modifying their actions and speech to reflect the expected image of a 'good' mother, students learn and grow. I argue that on the one hand, learning occurs for mothers (also known as mother guides) as they perform these positional identities, which are characterized by mothering processes and acts. Upon their assignment of a daughter, students take on the roles of caretakers, advisors, role models, comforters, and sometimes providers, which bolsters their sense of responsibility and provides more learning opportunities, including academic content. On the other hand, daughters look up to their mothers and assume certain positions that allow for guidance and assistance from their mentors, leading enhancement of the learning space. Through this process, students claim various positions marked by changes in how they speak and act. Educators can greatly benefit from this study as it will provide insight on how to effectively utilize cultural artifacts for learning purposes.

## **Including Students with Extensive Support Needs in General Education Classrooms Using Multiliteracies: Narratives of Disrupting Deficit Identities and Providing New Learning Spaces**

**Sudha Krishnan, Assistant Professor, Special Education, San Jose State University, California, United States**

This study relates the transformation of one student's narrative identity (stories told about the student by himself and others) which took place over four months as he engaged in the pedagogy of multiliteracies while creating a multimodal book with his favorite images of family and school; videos and images of his favorite activities at home and school; an identity chart with adjectives that best described him; strengths; and a transition plan describing what he wanted to do after school that was presented at the individualized education program (IEP) meeting. Grounded theory was used to analyze the data collected through interviews, observations, and video and audio recordings. Data indicates that multiliteracies enabled student agency and offered this student with extensive support needs, who had struggled to access literacy through traditional instruction, an opportunity to change his narrative identity from deficit to competence. The study has implications for using multiliteracies to disrupt ableist notions of disability and promote inclusive settings for students with extensive support needs.

# Learner Diversity and Identities

## Multimodal Expression Increases Student Engagement: Artistic and Digital Tools

**Kristin Lems, Professor, ESL/Bilingual Education, National Louis University, Illinois, United States**

A university professor looked for ways to maintain and increase engagement when their teacher education classes went all online during the pandemic, and discovered that opening up more modes of expression had lasting benefits in the post-pandemic era. Many kinds of music, digital and tactile art, rhymed and free verse poetry, and audio and video responses to reading assignments are some of the mixed modes that unfolded. The professor, too, became more creative and in turn more personally engaged. The workshop shares some of the innovative and enduring (and endearing) ways that the restrictions of online instruction, with emerging digital tools, ironically opened a funnel into more creative and authentic ways for students to express themselves and share insights, as they also became close as a group.

## The Learning of Foreign Languages from the Perspectives of Mexican Indigenous Languages Speakers

**Juan Francisco López Gutiérrez, Teacher, Escuela Normal Superior Veracruzana Dr. Manuel Suárez Trujillo, Veracruz, Mexico**

The pedagogy and acquisition of second languages represent significant actions in Mexican curricula. In this regard, the current preschool, primary and secondary education programmes emphasise the need to build communicative and interactive competences in international languages, such as English, French and Spanish, the latter being widely spoken in Mexico. Additionally, the recent curricular changes underline the importance of teaching Mexican indigenous languages given their relevance in knowledge diffusion and decolonisation. Similarly to other academic institutions, Normal Schools or Teachers' Colleges have included foreign language courses which are aimed at the learning of both language and pedagogical abilities required to fulfil teaching positions in Mexican Schools. This grounded-theory research analyses the impact of English and French learning in a group of students, enrolled in a Normal School, in Xalapa, who speak Tutunaku and Popoluca, two endangered languages of Mexico. The data obtained from open-ended questionnaires and semi-structured interviews revealed some benefits of foreign language learning, such as the access to academic, working and cultural interchange opportunities. Nevertheless, other participants attributed the reduction of Mexican indigenous languages speakers to the acquisition and use of foreign and local languages, particularly Spanish.

# Learner Diversity and Identities

## Schools as Learning Communities for Inclusion: Two Case Studies

**Maria José D. Martins, Professor, Education, VALORIZA – Research Centre for Endogenous Resource, Polytechnic Institute of Portalegre, Portugal**

**Amélia Marchão, Teacher/Researcher, Education and Formation, VALORIZA, – Research Centre for Endogenous Resource Valorization, Polytechnic Institute of Portalegre, Portugal**

**Teresa Oliveira, Adjunct Professor, School of Education and Social Sciences, Portalegre Polytechnic University, Portugal**

**Joana Pisco Véstia Da Silva, Research Scholar, Escola Superior de Educação e Ciências Sociais, Instituto Politécnico de Portalegre, Portugal**

There is a growing call for schools to transform into learning communities, in which teachers take responsibility for leading students to achieve the highest levels of learning, through collaboration. The INCLUD-ED approach aims to transform schools into learning communities, to increase social cohesion, inclusion, and academic success, challenging schools and the educational community, as a whole, to work together to transform difficulties into opportunities (Flecha, 2015). This approach suggests a set of successful educational actions, namely, interactive groups, literary and artistic gatherings, educational participation of the community (volunteers at school), training of families, dialogical training of teachers, and the dialogical model of conflict resolution (CREA, 2020). The present research studies two schools that were implementing the INCLUD-ED approach. The qualitative method based on case studies is used. Thus, interviews were carried out with teachers, family members, school staff and volunteers and focus group were conducted with pupils. The data suggest that the project was mainly implemented in both educational establishments at primary school, that interactive groups in class were promoted by teachers, and the use of volunteers in the classroom, although these were mostly family members or non-teaching staff from the school. Involvement in the project varied from teacher to teacher, but almost everyone involved considers that this approach allows greater family and community participation in school activities. Differences are discussed. Fundação para a Ciência e a Tecnologia, I.P. (Portuguese Foundation for Science and Technology) supports this work- project PTDC/CED-EDG/4650/2021-LC4 Inclusion and \*\*VALORIZA – Research Centre for Endogenous Resource Valorization

## With English I Can Join the World but Will I Still Feel Like Me?: Puzzling Times for EAL Teaching in Secondary Schools

**Shirley Palframan, Subject Lead / Head of Department, English as an Additional Language, The British School of Brussels, Belgium**

**Anna Kijora Galuszka, EAL teacher, The British School of Brussels, Belgium**

With the global proliferation of English medium instruction, how can teachers of young people balance the tension between providing access to the cultural capital of native speaker level English and maintaining individual linguistic identities? This workshop is an opportunity to share reflections on the power dynamics of English medium instruction at its point of peak globalisation. We will consider how greater insights into role of language in constructing young people's identity can be achieved and how such insights should impact the practice of English language instruction in English medium international schools. The workshop session may be of interest to researchers working on secondary school education or on issues of diversity, identity and post colonial identities.

# Learner Diversity and Identities

## **Talking Back to Shakespeare in a South African Lecture Room: Engaging in Critical Conversations about Social Justice, Understanding and Tolerance**

**Ansurie Pillay, Associate Professor, School of Education, University of KwaZulu-Natal, KwaZulu-Natal, South Africa**

In this paper, I reflect on a series of lectures, underpinned by the principles of Freire's critical pedagogy, when engaging with Shakespeare's *The Tempest*. Working with pre-service teachers in a South African School of Education, I used a talk-back design to enable them to talk back to the canon and open interactional dialogue about social justice, understanding and tolerance. I used hot seating, teacher-in-role and written work and found that pre-service teachers grasped the opportunities to set the agenda for interrogating and resisting forms of knowledge usually deemed worthy. I understood that using a dialogic platform enabled them to identify different forms of knowledge and it allowed them to understand that all texts are socially constructed, are of a time, reflect an agenda, and need to be interrogated and resisted, if necessary. I found the talk-back design important in enabling democratic participation as pre-service teachers designed their own counter-discursive responses as they confronted the canonical imperatives.

## **Learner Diversity and Cultural Identity in Urban Art Education**

**Zartasha Shah, Student, Ph.D., Curriculum and Instruction, University of Houston, Texas, United States**

The process of supporting diversity and cultural identity impacts the social contacts of students in their classrooms. Learner diversity informs about the importance of values of distinct cultures, customs, and traditions. To support the critical inquiry, the process of implementation can mobilize the moves and clarify the critical learnings through the conceptual theory of the constructivist learning theory. This conceptual interpretation can support the developmental process for structural assessment, critical inquiry, and diversity in education. The value of social norms, connections, and learning will be explained more. The diverse climate also supports multiculturalism. Supporting multiculturalism, urban art education, and critical race theory also impacts the social contact of students in their classrooms. Individual identity is essential; the issues revolve around separating identities from each other, differences between ethnic groups, and the changes in the values of diverse communities in education. Urban education is about diversity, equity, inclusion, issues, concerns, and the effects of social justice in education. Urban learning informs us about the importance of each ethnic student in the larger cities, the overcrowded classrooms, fewer chances to ask questions in each class, and also fewer chances to get the attention of teachers in each class. The lack of federal, state, and local funding cannot support the learning process in urban education. The lack of trained the teachers affects the progress of students in education. Therefore, to teach students in urban settings, trained and knowledgeable the teachers are needed in the classrooms for students to expand their knowledge in education.

# Learner Diversity and Identities

## **Supporting Math Learning of Students with Behavioral and Academic Challenges: A Case Study of a Pre-service Teacher**

**Elaine Silva Mangiante, Associate Professor, Education Department, Salve Regina University, Rhode Island, United States**

This qualitative case study presents findings of the approaches that one pre-service teacher (PST) used during practicum teaching when providing instruction for a mathematics unit with three fourth-grade students who had behavioral and/or academic challenges. The purpose of this study was to examine the planning, reflections, and decision-making of this unique PST who was able to engage students successfully as they learned about and "proved their thinking" about properties of geometric shapes. The study examined how her approaches aligned with (a) high-leverage practices for students with exceptionalities and (b) classroom conditions that promote an environment for positive student behaviors. Four themes with multiple sub-themes emerged from the data analysis: purposeful planning for student needs and to create a team culture, frequent assessment to inform instruction, intentional instructional decision-making to adapt pedagogical approaches with flexibility, and encouragement of group work to share student thinking. The results suggest that this PST was able to focus on the social context of teaching—understanding her students' personalities as well as learning needs and building a discursive community of learners—in order to aid students in their productive interaction with each other while learning math concepts. The outcome from implementing these student-centered approaches was that the students helped each other learn and resolved conflicts among themselves, thus having an equitable opportunity to learn. Teacher educators can use this case study to help PSTs understand the application of high-leverage practices in the classroom and create positive classroom conditions to meet the needs of students with exceptionalities.

## **Not This!: Witness Marks from Incarcerated Youth Seeking Educational Access and Compliance with the Individuals with Disabilities Education Act in the U.S.**

**Melissa Svigelj, Assistant Professor, Justice Studies, James Madison University, Virginia, United States**

Although much has been written about demographic disproportionality in the U.S. among children identified as eligible for services under the Individuals with Disabilities Education Act (IDEA), less has been written about how county detention officials, guards, and employees in schools and school districts ignore, utilize, and manipulate nuances of this federal civil rights legislation to exclude eligible children from protections. Using expansive theoretical frameworks and archiving processes between 2014 and 2022, this analysis exposes through a lens of "not this" how youth in the U.S. resist and refuse obstructions and manipulations that prevent them from accessing educational opportunities, protections in the IDEA, and earning a high school diploma. Witness marks as a research and analytic tool are borrowed from horology, with infusions of critical horology. The author examines witness marks created by incarcerated male youth and their refusals to accept systemic blockages and violations of educational civil rights law as they experience bindovers to the adult court system, jail, and prisons. In all of these witness marks, young people and allies must engage in extraordinary measures to ensure that what is supposed to happen or should happen in the interest of justice actually happens.

# Learner Diversity and Identities

## **Classroom Community in Introductory Undergraduate Mathematics and Statistics: A Mixed Methods Study of Student Belonging and Course Attributes**

**Shira Viel, Assistant Professor of the Practice, Mathematics, Duke University, North Carolina, United States**

**Maria Tackett, Assistant Professor of the Practice, Statistical Science, Duke University, North Carolina, United States**

A strong sense of classroom community is associated with many positive learning outcomes and is a critical contributor to undergraduate students' persistence in STEM, particularly for women and students of color. This poster describes a mixed-methods investigation into the relationship between classroom community and course attributes in introductory undergraduate mathematics and statistics courses, mediated by student demographics. Data were collected at a United States university from online courses in the 2020-21 academic year and from hybrid and in-person courses in the 2021-22 academic year. Quantitative data were gathered from both students and instructors and analyzed using structural equation modeling. The primary instrument was the validated Classroom Community Scale – Short Form. These quantitative results are complemented and contextualized by thematic and textual analyses of focus group data, gathered using a protocol piloted during the 2021-22 academic year. Preliminary practical implications of the study include the value of synchronous participation in fostering connectedness and the importance of attending to students' personal identities in understanding their experiences of belonging.

## **The Development of Death Knowledge, Attitudes towards Death, and Beliefs of Life Meaning Scales for Senior High School Students with Mild to Moderate Intellectual Disabilities**

**Wen Ying Liou, Professor, Department of Education, National Chiayi University, Taiwan, Taiwan**

Being born and going to be dead are the life journeys that anyone would go through. According to the statistical data, the life expectancy of people with intellectual disabilities (ID) has increased, so the experience of death of relatives or friends has also increased. However, if people with ID are unable to understand death, their negative feelings of depression will be produced and affect their mental health. Therefore, the purposes of this study were to develop three pictorial scales, the death knowledge, attitude towards death, and belief of life meaning assessment tools for senior high school students with mild to moderate ID, and to test the reliability and validity of the three assessment tools. The research method of this study adopts purposeful sampling to collect the three assessment data from about 200 senior high school students with mild to moderate ID. The consistency and validity are examined using Cronbach alpha coefficient and exploratory factor analysis.

# Educational Organization and Leadership

## **Exploring Perceptions of Pre-Service Teachers and Instructors about Field Experience in a Federal University in the UAE: A Mixed-method Study**

**Fatima Al Mohsen, Instructor, College of Humanities and Social Sciences, Zayed University, Dubai, United Arab Emirates**

Quality field experience is crucial for shaping effective teachers. However, little research investigates pre-service teachers' and instructors' perspectives in the UAE. This study explores their perceptions using mixed methods and Danielson's teaching quality framework. 113 pre-service teachers and 13 instructors provided positive overall feedback on the field experience program. However, some areas requiring improvement emerged. The study identifies and discusses these drawbacks, offering suggestions for rectification. Recommendations for optimizing field experience in the UAE are provided, aiming to train world-class teachers. These findings can assist policymakers in implementing programs to strengthen pre-service teacher preparation and contribute to achieving the UAE's education goals outlined in Vision 2030.

## **Educational Leadership in Minnesota in the Wake of COVID-19 and the Murder of George Floyd: A Feminist Mixed-Methods Multiple Case Study**

**Marci Levy Maguire, Adjunct Faculty, Educational Leadership and Learning, University of St. Thomas, Minnesota, United States**

This mixed-methods multiple case study through a feminist research lens examined Minnesota K-12 school district leaders' perceptions of the purposes of education, their roles, and measures used to assess student and system success in the wake of COVID-19 and the murder of George Floyd. The purpose of this study was to examine if and how two of the greatest disruptions to education in Minnesota and American history were likely to lead to lasting changes in: 1) clarifying the purposes of school and K-12 education, 2) aligning measures of accountability and success to those purposes, 3) improving educational equity and social justice in education and society, and 4) reimagining how educational decisions get made and by whom. Research methods included an online survey, semi-structured interviews, and document analysis, with the findings of all methods mixed throughout the analysis. Participants included superintendents, school board chairs, and district assessment coordinators representing diverse geographical regions of Minnesota. Findings illustrated a lack of social justice leadership and democratic decision-making in Minnesota schools, local control systems designed to maintain the status quo, and leader agreement with established purposes of education, but little alignment of leadership action to them. Examining these findings through the lenses of relationships between political economy, ideology, and schooling, critical theory, and feminist theory reveal how Minnesota school district leaders maintain systems that promote dominant ideologies and maintain opportunity and outcome disparities for students and adults, illuminate leverage points for educational reform, and present topics for future research.

# Educational Organization and Leadership

## Beyond the Rhetoric: School Leaders' Challenges with Digital Inclusivity

**Labby Ramrathan, Professor, Teacher Development Studies, University of KwaZulu-Natal, Kwazulu-Natal, South Africa**

**Inbanathan Naicker, Associate Professor, Education Leadership, University of KwaZulu-Natal, Kwazulu-Natal, South Africa**

**Daisy Pillay, Academic, Teacher Development Studies, University Of KwaZulu-Natal, Kwazulu-Natal, South Africa**

Globally and indeed within South Africa, COVID-19 has accelerated the need to integrate digital technology into the teaching and learning processes within school education. Noting further that the most recent PIRLS study report indicates that approximately 81% of grade 4 learners cannot read with comprehension in South Africa. Furthermore, the state of schooling within South Africa compromises the provision of quality education. Yet, school leaders are encouraged to include and integrate digital technology into the teaching and learning processes in their respective schools. In this paper we present a summary of the challenges that school leaders present as barriers and opportunities to digital inclusivity into their schools in context of resource deprivation. We then argue that digital inclusivity in teaching and learning within resource-deprive schools are possible, using the capacities and capabilities of teachers who teach in such school contexts. We draw our data from both a review of literature on digital inclusivity within school education and from interviews (within a phenomenological study design) with a sample of school leaders who have experienced the use of digital technologies in their resource-deprived school contexts. Using Deluze's concept of assemblage and Barad's notion of new materialism and co-constitutive intra-action, we show the possibility of digital inclusivity in teaching and learning in schools that are resources deprived.

# Educational Organization and Leadership

## **Do Positive Student Experiences Lead to Student Retention?: Views of Postgraduate Students**

**Chantal Rootman, Professor in Business Management, Business Management, Nelson Mandela University, Eastern Cape, South Africa Carly Smith, University of South Africa  
Janine Krüger, Full professor, Business Management, Nelson Mandela University, Eastern Cape, South Africa**

Positive student experiences attract postgraduate students to public higher education institutions. However, it is important to investigate how student experience contributes to student retention, especially in a developing country where student retention and successful completion of qualifications are often not the norm. The objective was to investigate how student engagement and student satisfaction influence postgraduate student experience for student retention at public higher education institutions. The purpose was to find ways for these institutions to use student-focused marketing approaches towards postgraduate students, to successfully retain these students until completion of their qualifications. A positivistic, quantitative study utilised convenience sampling to distribute a web-based survey to postgraduate students registered at South African public higher education institutions. The data from 435 usable questionnaires was analysed quantitatively to test the relationships of the hypothesised model, and descriptive and inferential statistics were conducted. The main results show that both student engagement as well as student satisfaction significantly influence student experience. Student experience also significantly influences student retention. In addition, groups of students showed practically significant differences in their views on student experience and student retention. This study contributes to the body of knowledge by providing strategies and recommendations to public higher education institutions on how to enhance student engagement and increase student satisfaction toward positive student experience for student retention in a developing country. A student-focused marketing approach leading to higher levels of student experience, and thus student retention, could aid institutions with their competitiveness and growth as well as improve success rates.

# Educational Organization and Leadership

## Leadership Curriculum Analysis of Healthcare Graduate Programs

**Cara Tolan, Assistant Professor, Communication Science and Disorders, Commonwealth University - Bloomsburg, Pennsylvania, United States**

The purpose of this study is to examine the required core curriculum of the top 50 graduate programs from occupational therapy (OT), physical therapy (PT), nursing, speech-language pathology (SLP), and audiology programs. The questions addressed were: Do SLP and audiology program curricula include leadership in course offerings? How do leadership offerings compare among allied healthcare graduate programs? It was hypothesized that SLP and audiology programs include fewer leadership courses when compared to other healthcare graduate programs. A quantitative analysis of the healthcare graduate program curriculum or course sequences was used. Statistically, the curricular data was analyzed via Chi-Square analysis. The researcher used a Chi-Square analysis to test for a categorical relationship between graduate programs and leadership curricula. The Chi-Square statistic was significant at  $p < .05$ . Therefore, SLP and audiology graduate programs are less likely to include leadership within the curriculum. Descriptive percentages revealed that 68% of nursing, 82% of OT, 42% of PT, 12% of audiology, and 6% of SLP graduate programs included a leadership component within the curriculum. The study concludes that SLP and audiology graduate programs have fewer leadership offerings throughout their curriculum. This finding represents a missed opportunity for leadership preparation within the curriculum. Leadership education is an important component to consider when developing competent clinical leaders. Following the findings, leadership development for SLP and audiology graduate programs is recommended.

## More Than a Test Score: A Case Study of Career Readiness Programming in Rural Minnesota High Schools

**Maggie Velasco, Director of Career and College Readiness, Education Solutions, Sourcewell, Minnesota, United States**

This mixed-methods, multi-site case study explores the implications of a robust career readiness program that utilizes national readiness metrics, on the implementation and design of rural Minnesota high school career readiness programming. Building leadership teams involving administrators, educators, and counselors utilize a distributed leadership model to design and implement a career readiness program that focuses on maximizing resources, measures student impact, engages communities and higher education, and provides opportunities for small rural school districts to work collaboratively. There are legislative, national and statewide, implications of this research. Along with providing rural districts with a blueprint for effective career readiness programming using a distributed leadership model, this research provides an alternative lens for assessing and communicating student achievement and district health. Paired with state and national test scores, the Redefining Ready metrics can enhance the picture of instructional success and inform leadership on how best to maximize resources for greatest student impact.

# Educational Organization and Leadership

## **Innovative Instructional Strategies to Redesign Educational Administration Preparation Programs: Digital Initiatives to Provide Equity and Meet the Needs of Diverse Emerging School Leaders**

**Aura Wharton Beck, Associate Professor, School of Education, University of St. Thomas, Minnesota, United States**

**Chientzu Candace Chou, Professor, Educational Leadership, University of St. Thomas, Minnesota, United States**

The purpose of this study focuses on innovative initiatives to redesign a school administrator preparation program at the University of St. Thomas in Minnesota, USA. The initiatives include the creation of Interactive learning objects (ILOs), differentiation of curricula, standardization of syllabi to address school administrator competencies, accessible course templates for the learning management system, and the HyFlex course delivery model for both in-person and Zoom instruction. We revised our program to meet the needs of diverse student populations better. Therefore, each course received an in-depth Diversity, Equity, and Inclusion (DEI) curriculum audit from a university DEI fellow. We also hired two subject matter experts to work with all faculty to provide appropriate lessons and resources to address the needs of Catholic, public, and public charter schools in Minnesota, USA. The redesign team worked closely with instructional designers to implement the digital innovation. Specifically, ILOs refer to micro-learning modules in which students engage in a digital learning module to achieve specific learning outcomes. Embedding more interactive ways to engage students virtually helped strengthen the learning outcomes. We used a template in the learning management system (Canvas) to provide a consistent look for all online courses to increase the accessibility of course content for students. In this paper, we showcase all new features and reflect on the successes and challenges related to the program redesign.

## **Teacher Recruitment and Retainment Challenges Post-COVID-19: A Case Study of K-12 School Districts**

**Julie Williams, Adjunct Professor, Educational Leadership, University of St. Thomas, United States**

The purpose of this qualitative case study was to understand recruitment and retainment challenges districts faced pre-COVID-19 and changes or additional challenges faced post-COVID-19. Human resources and teaching and learning administrators were interviewed in pairs and discussed challenges their district has faced related to recruitment and retainment of teachers. Using the theoretical framework provided by Bolman and Deal (2017), I analyzed reasons teachers are leaving the profession, impacts their departure has and strategies for retainment. In addition, Bandura offers a theory on self-efficacy that adds additional insight. The impact of recruitment and retainment challenges has an impact on the workforce and will impact student learning. This study gives districts specific strategies to intentionally recruit and retain teachers in impactful ways.

# **Early Childhood Learning**

## **Deaf Children's Experience in Emergent Literacy**

**Ali Alasmari, Faculty, Special Education, Prince Sattam University, Ar Riya, Saudi Arabia**

The major components of emergent literacy are discussed such as phonological awareness, alphabet knowledge, and phonics with a definition of emergent literacy. The rest of the paper reviews some studies that discuss emergent literacy for profoundly or severe hearing loss deaf children. The result explores how deaf children can experience emergent literacy in a qualitatively similar way as hearing children but quantitatively it is different.

## **What Is This I See Before Me?: Teachers' Perceptions of Learning and School Readiness in Kindergarten Children**

**Patricia Carson, Student, Doctorate, University of Tasmania, Queensland, Australia**

This paper reports on the results of a research study entitled "Who is that I See Before Me?" Teachers' Perceptions of Learning and School Readiness in Kindergarten Children. This research was primarily concerned with giving voice and validation to kindergarten teachers by exploring their perceptions, assumptions, and understanding as to what, and how, do learning readiness and school readiness present in kindergarten children. In order to answer the research question "How do kindergarten teachers perceive and understand the concept of learning readiness and school readiness?" The research was conducted within a social constructivist framework and employed an Interpretive Phenomenology Approach (IPA). Data were collected in three phases using semi-structured interview questions. Each interview focused on a different aspect of readiness. The first interview looked at the perceptions and understanding of interviewees regarding learning readiness. The second interview focused on school readiness. Both interviews also examined how teachers' pre-service and teaching experiences influenced their understanding of learning and school readiness. The final interview allowed the teachers to share what they considered important for new kindergarten teachers to know concerning the concepts of learning and school readiness. A reflective journal allowed the researcher to explore her own biases, preconceptions, and experiences of the phenomenon being studied. This research aims to increase kindergarten teachers understanding and awareness of how learning readiness and school readiness are presented, and understood, by those teachers who live the experience in the classroom every day.

# Early Childhood Learning

## The Proposal of a Model of Support for Teachers and Parents of a Child Mechanically Ventilated at Home

**Agnieszka Kamyk-Wawryszuk, Assistant Professor, Department of Special Pedagogy and Speech Therapy, Kazimierz Wielki University in Bydgoszcz, Poland**

More and more children are being diagnosed with a chronic disease (CD) and are dependent on medical equipment, including mechanical ventilation, in their daily functioning. This group will continue to grow with time. The time spent in hospital is a period when certain life-saving medical procedures for children are applied, and often it is connected with medical trauma. Hence the child's return home environment and then to school is extremely important in the process of stabilisation and convalescence. The role of a child that he/she is performing is not only psychological, but also of social importance. This is all the more important as the treatment process can often change the child's appearance, reduce the child's physical readiness to undertake various activities connected with the role of a pupil and contribute to the emergence of emotional problems. This results in existence of individual educational and communication needs that often modify the methods and forms of work with the child. The situation of the child is therefore complex and requires individualisation of the educational process. Hence the atmosphere in the school, the rules for dealing with a pupil with a CD, the competence of teachers, but also particular educational acts are important in the child's educational process and can create a conducive environment for the development of the child and support his/her recovery. The aim of the speech is to present a model of support for teachers and parents in working with a child mechanically ventilated.

## Cultivating Diversity and Inclusion Using Children's Literature

**Paula Saine, John Heckert Endowed Faculty of Literacy/Professor, Teaching, Curriculum, and Educational Inquiry, Miami University, United States**

Teachers must examine their personal biases and past experiences to ensure they do not interfere with their ability to demonstrate to students they are valued as individuals and that their diversity should be embraced. In doing so, students will be better able to appreciate and accept others of different abilities, races, cultures, religions, and so forth if they are given the opportunity to engage in literacy activities that promote these differences. Furthermore, as teachers create safe and collaborative learning environments to foster inclusive classrooms, students will be better equipped to work with others who have different perspectives. This study focuses on how critical consciousness of self, environment, and the classroom curriculum cultivate an inclusive education.

# Early Childhood Learning

## **Saadhy - Exploring the Landscape of Early Childhood Education in Hyderabad, India: Project Funded by Australia India Research Student (AIRS) Fellowship for Early Career Researchers**

**Vijaya Tatineni, Lecturer in Early Childhood Education, Institute of Education, Arts, and Community (IEAC), Federation University Australia, Victoria, Australia**

The landscape of Early Childhood Education in India underwent a significant transformation with the introduction of a formalized syllabus and curriculum under the National Education Policy (NEP) of 2021, with a particular focus on the National Curricular Framework for Early Childhood Education (NCFFS) in 2022. Despite these advancements, the training of early childhood teachers has yet to adapt to effectively impart the new and ambitious play based curriculum. Our research delves into this gap in teacher education by conducting interviews with 20 early childhood educators (in Hyderabad, India) from diverse socioeconomic backgrounds, including two international schools catering to higher SES children, one serving the middle-class income group, and another addressing the lower middle SES group. Serving as a pilot study for a larger three-phased project aimed at developing micro credentials for teacher training in India, our investigation explores how teachers' values, often rooted in non-western and contextual perspectives, influence the ways in which early years children are prepared for formal schooling. The findings shed light on the responsiveness of teachers' educational values to the societal and economic needs of Indian parents, reflecting their aspirations for the academic readiness of their children in the early years. Project funded by Australia India Research Student (AIRS) Fellowship for Early Career Researchers.

## **The Study of First Grade Students' Geometric Abilities Emphasizing Problem-solving Skills Using an Open Approach**

**Naphaporn Woranetsudathip, Teacher, Mathematics, Khon Kaen University, Khon Kaen, Thailand  
Sampan Thinwiangthong, Khon Kaen University, Thailand**

The research investigates first-grade students' ability to learn about geometry. The intervention of geometric problem solving through an open approach consisted of 6 lesson plans of 2D and 3D shapes. Tools of interpretation included the geometric ability evaluation form for 3 independent class observers, a video recorder, and digital skill camera. Qualitative data was analyzed and presented in an analytical description. The results illustrate that the average score for geometric ability of first-grade students was interpreted as 'very good' (Mean = 3.56, S.D. = 0.45) which could be elaborated across 4 aspects. Their ability in Shape Recognition was at a 'very good' level (Mean = 3.66, S.D. = 0.40) indicating that the students identified circles, triangles, squares, and rectangles correctly. Their ability in Shape Reproduction was considered 'very good' (Mean = 3.61, S.D. = 0.39) which reflected how well they reproduced copies of the shapes from their memory. Their ability in Orientations was considered at a 'good' level (Mean = 3.49, S.D. = 0.43) indicating they could discuss if the shapes were vertical or horizontal. Their ability in Patterns, was at a 'good' level (Mean = 3.46, S.D. = 0.56), indicating that the students could sort the figures into patterns. Additionally, this study discovered notable developments in creativity and reasoning ability as the students use 3D shapes to replicate real-world items and explained the reasons why each shape was placed in a particular position.

# Early Childhood Learning

## **Values Education in the Early Years: Practices and Challenges in Early Childhood Education**

**Sandra Wu, Lecturer, Policy, Curriculum and Leadership, National Institute of Education, Nanyang Technological University, South West, Singapore**

In Singapore, there is a diverse early childhood education landscape situated in a multiracial, multicultural and multireligious society. The diversity of the country has important implications on how values are cultivated in children from young, interpreted and lived out. Early childhood education is offered by a myriad of operators in a market system that is government regulated. This has implications for the quality of early education, in particular, values education as Singapore is a secular society. At the pre-school level, there are four values explicated in the revised Nurturing Early Learners framework, a national curriculum framework for pre-school education in Singapore that was launched in November 2022. Since the revised framework was recently launched, this article seeks to unpack what these values mean in the pre-school context with the view that values are sociocultural constructs and shed light on the current practices in values education. It draws upon a qualitative project that includes multiple perspectives solicited from government officials, religious leaders, early childhood leaders and teachers from various operators. Semi-structured interviews and focus group discussions were conducted and the data is coded, analysed, interpreted and triangulated using thematic analysis. The findings offer insights to the Singaporean interpretations of the four values, shed light on how values have been taught and the challenges teachers and leaders face.

# **Assessment and Evaluation**

## **Skills Development and Assessment In Business Education: Are Students Missing Out and What Can We Do About It?**

**Angelito Calma, Senior Lecturer, Faculty of Business and Economics, The University of Melbourne, Victoria, Australia**

**Miriam Edwards, Educational Designer, Williams Centre for Learning Advancement, Faculty of Business and Economics, University of Melbourne, Victoria, Australia**

Business schools with Association to Advance Collegiate Schools of Business (AACSB) accreditation engage in an assurance of learning (AoL) process to evidence achievement of program-level learning outcomes. This continuous improvement process aims to ensure that business students develop the key business skills and competencies needed for their studies and future careers. The main criticisms of AoL, however, include its inability to identify and clearly understand the key discipline-specific dimensions or performance traits associated with each of these skills (e.g., critical thinking, problem-solving, communication). For example, critical thinking in economics may require different performance traits than critical thinking in marketing (e.g., using evidence; making judgments). In AoL, it is often performed in practice that a skills-based rubric applies to student assessments irrespective of their disciplines. This can pose issues, not only on the validity of the rubric and the results but also in missing out on the opportunity to improve a program and its units of study due to the inadequate feedback the rubrics provide academics and program directors. This, in turn, inhibits the re-examination of suitable traits specific to the discipline that students should develop as part of their business major. This paper showcases an ongoing thematic analysis study in assessing data collected from AoL over five years, examining a range of skills in undergraduate and graduate business programs. Once specific performance traits are identified, this has implications for teaching, learning and assessment (re)design and program development, thereby improving quality and accountability.

# Assessment and Evaluation

## Predicting Students' Academic Performance Using Machine Learning Algorithms

Cansu Cigdem Ekin, Associate Professor, Computer Engineering, Atilim University, Ankara, Turkey

Recently, education sectors have the most attraction from people all around the world and this make it more valuable for those wanting to invest in this sector and earn income. Students are the largest stakeholders in this area and they need more attention from the educational side. All universities are trying to improve quality for achieving their students' satisfaction. Sometimes universities are using their old data related to students to analyze and make better decision for their future aspects. These analyses can be done by EDM (Educational Data Mining) a subset of ML (Machine Learning) that can discover very large datasets for producing valuable results. In this study we analyze the data of Computer Engineering students to predict their academic performances in three different aspects: predict final grades, study duration, and next term course grade. For this purpose, we have examined different ML algorithms and different available features to find the best ML algorithm and the most significant factors for predicting students' academic performance. Our results show that SVM (Support Vector Machine) and DT (Decision Tree) are the two best ML algorithms and also, we have been determined that only course grades are the most valuable factors in prediction.

## CASPer - Maybe Not So Friendly: An Investigation into Non-Academic Attribute Testing, Situational Judgement Tests, and Medical School Admissions

Sakinah A. Ismael, Student, Education Policy, Organization, and Leadership EdD, University of Illinois Urbana-Champaign, United States

This paper examines the integration of non-academic assessments in medical school admissions and their impact on inclusive medical education in local and global contexts. These assessments, designed to gauge essential personal traits such as ethics, empathy, and interpersonal skills, are juxtaposed against traditional academic metrics in the admissions process. Situational judgment tests and, specifically, the Computer-Based Sampling of Personal Characteristics (CASPer) are highlighted. Through a review of the literature and case studies, these written and video-based non-academic assessments are analyzed with a focus on empathy. Findings from the research indicate that the predictive validity of these non-academic assessments is mixed. While such tests may offer deeper insights into candidates' suitability for the medical profession, concerns persist about their cultural bias and fairness, especially in diverse local and international settings. This investigation highlights the variability in the adoption and perception of these tests across different educational systems and raises questions about their capability to assess candidates from varied cultural backgrounds equitably. While non-academic assessments can provide a more comprehensive view of medical school applicants, their current form necessitates rigorous evaluation and adaptation to ensure they support the principles of inclusive education. Such standardization would help minimize cultural biases and ensure that these tools are used effectively and fairly across different contexts, ultimately contributing to a more diverse and competent future medical workforce.

# Assessment and Evaluation

## **Implementing Vision Boards as an Assessment Tool: How to Make Them Work for Your Course**

**Louise Krug, Associate Professor, English, Washburn University, Topeka, Kansas, Kansas, United States**

I began using vision boards as an assessment tool for my memoir writing class four years ago. We usually think of vision boards as motivational tools promoted by self-help gurus, but when my students created visual pieces to communicate the overall sense of their memoirs, it was clear that they were labors of love, and it ended up being the most-liked assignment of the semester, according to their evaluations. In this workshop, I show you how to adapt vision boards to work for assessment in all kinds of courses, and we will also work on creating a rubric. Vision boards add the element of the concrete visual to begin to articulate the subconscious inspiration and creativity beneath the surface. To compose, students use what a visual artist might call ready-mades: clippings from magazines, photos, even 3D objects to communicate underlying themes and emotions before they are articulated on the page. This exploration of students' ideas in a visual format is a creative and innovative approach to discovering what it is students have to say as it encourages different ways to tap into it pre-language. In addition to creating the vision boards, students presented them to the class, adding the left-brain component of articulation describing their choices. My students engaged with the project in surprising and effective ways and sharing their vision boards provided inspiration and different perspectives to approaching their own material.

## **Characteristic Features of Speech Perception and Verbal Memory of Students with Atypical Language Development**

**Mária Laczkó, Scholar, Hungarian Linguistics**

One of the special diagnostic methods of speech perception process is the sentence repetition task which is suitable for the measurement of verbal memory of children. The aim of present research is to analyse the verbal memory of secondary school students with different types of learning disabilities caused by their atypical language development during sentence repetition. The paper is focused on the analysis of detailed experimental results both in linguistics and pedagogical aspects.

# Assessment and Evaluation

## **Assessing Ourselves: Inter-rater Reliability Issues in Assessing Student Learning Outcomes**

**Lauren Mandel, Associate Professor, Graduate School of Library and Information Studies, University of Rhode Island, Rhode Island, United States**

Student learning outcomes assessment requires two levels of assessment: assessing student work and assessing how well the program is assessing the students' work. In a professional master's degree program, a rubric was created for assessing student work on achievement of program-level educational outcomes. That rubric was used from 2018-2023 (six years). Over that time, the inter-rater reliability scores varied widely. One issue is that student work is designed to demonstrate achievement of course learning objectives, and the Assessment Committee needs to apply the rubric to assess that student work for achievement of program learning outcomes, which differ from the course learning objectives. Another is that multiple types of reviewers have used the rubric over the past six years: members of the committee who are full-time department faculty, as well as members of the department's advisory board, some of whom are part-time department faculty and some of whom have no faculty experience. This paper reports a secondary analysis of inter-rater reliability scores for the rubric, with recommendations from the literature on how to improve reliability in assessing student learning outcomes.

## **Changes during the Transition from High School to College: A Longitudinal Case Study of the Development of Students' Cognitive and Metacognitive Processing Skills and Task Perception in Academic Writing**

**Run Mu, Student, PhD, The University of Hong Kong, Hong Kong**

In today's information-driven knowledge economies, learners face a heightened need to effectively synthesize information from diverse sources. The capacity to attain communicative competence in writing plays a crucial role in language development and academic achievement across all educational levels. However, previous studies and examination papers showed that secondary students are lack of text-based writing practice and they generally produced a composite of disconnected parts. Transitioning to tertiary education, these students may face pressing issues as almost all academic writing requires them to synthesize information across multiple texts to construct a good argument. Therefore, the current study investigates the transition of students' cognitive and metacognitive processing skills and task perception in academic writing from high school to college and attempts to answer three research questions: (1) What is the nature of the novice writers' perceptions of academic writing task, and how do these perceptions transit from high school to college? (2) What is the nature of the novice writers' cognitive and metacognitive processing skills while writing, how do these skills develop from high school to college? (3) What caused the changes of task perception and processing skills? By analyzing 22 students' essays, questionnaire responses, and semi-structured interviews at three distinct time intervals, we observed favorable transformations in novice writers' cognitive, behavioral, and emotional aptitudes related to academic writing. Additionally, we noted a progressive enhancement in students' utilization of cognitive and metacognitive processing skills. The implications for pedagogical support in fostering academic writing skills among novice writers are discussed.

# Assessment and Evaluation

## Wide-open Spaces: International Studies as Transformative Learning in Global Competency

**Elizabeth Peters, Student, PhD Candidate, University of Oklahoma, Oklahoma, United States**

International studies is one of the most exciting, transformative learning approaches that not only gives students a growth opportunity of a lifetime, but also introduces them to important skills that will help them serve as global citizens in an increasingly diversified world. Studies show that experiences from travel abroad raises GPA, increases employment opportunities, and results in students earning higher salaries post-graduation when compared with non-traveling cohorts. Empirical research also shows that students who study abroad gain a host of soft skills employers are looking for such as critical thinking, empathy, cultural appreciation, communication, global awareness, problem-solving, confidence, and leadership. This assessment included global learning competencies as a transformative learning experience. The assessment group consisted of N=12 participants in the OSU-OKC Travel Abroad Program to London & Paris, Spring 23. Participants had to have been present to consent and complete the pre-assessment at the pre-travel meeting on February 28th, 2023, as well as completed the travels to London and Paris, and the post-test after travel. Difference scores were analyzed in SPSS as a one-way within-subjects Analysis of Variance with repeated measures. Results showed overall statistical significance between the pre and post-test scores, which was recognized as an associated function of the travel abroad experience to London and Paris. The multivariate tests showed a significant effect between pre and post-test scores. Wilk's Lambda = .51,  $F(1,11) = 10.70$ ,  $p < .05$ , multivariate  $\eta^2 = .50$ . Results indicated a significant increase in learning as an associated result of the students' travels abroad.

## Understanding Factors Influencing Teacher Data Use: Insights from a Mixed-methods Study

**Jorge Rojas Bravo, Profesor Asociado, Facultad de Educación, Universidad de Concepción, Bío-Bío, Chile**

Data use in teacher education to enhance instruction has proven to be a persistent challenge. Its effective implementation hinges upon various factors, including educators' conceptions of learning, their disciplinary and pedagogical expertise, as well as the conditions provided by the educational organization. A mixed-methods study tackled this complexity by combining three years' worth of quantitative data from a sample of 60 schools with a qualitative analysis of 12 cases from standout schools. Findings reveal that organizational conditions serve as significant predictors of data use for improvement and accountability purposes. However, the type of pedagogy employed by teachers emerged as a key predictor for evidence use aimed at enhancing instruction. These results suggest the need for a comprehensive approach that considers both organizational aspects and pedagogical practices in efforts to promote effective data use within the educational context. This study provides valuable insights into the factors influencing the efficacy of data implementation for teaching enhancement, underscoring the importance of addressing both structural aspects and professional practices in the development of educational policies and programs.

# Assessment and Evaluation

## **Exploring Professional Readiness from the Perspective of Observers with Rasch Methods**

Jacquelyn Thompson, Accreditation and Assessment Manager, Judith Herb College of Education, University of Toledo, Ohio, United States Gregory Ethan Stone, University of Toledo, Ohio

Marcella Kehus, University of Toledo, Ohio

Noela Haughton, Professor of Education, Educational Studies, University of Toledo, Ohio, United States

This research delves into the theme of quality and accountability within university-based traditional educator preparation programs (EPPs) in the United States from the perspective of the Interstate Teacher Assessment and Support Consortium (InTASC) standards. The main objective was to explore psychometric properties that are aligned with pre-service teacher (PST) readiness professional standard. An additional goal was to establish a measurable progression of professional development amongst PST candidates that can be considered in conjunction with the evaluations of these skills by experts in the field. This research adds to the literature on the science of education in identifying key dispositions and professional skills that develop over time for practiced educators as they hone their skills. A multi-phased, methodological approach was employed, integrating measurement, statistical, and qualitative methods. This process investigates the validity of an observational instrument for University Field Supervisors (UFSs) that had been developed in direct alignment with assessments that are completed by PST candidates, guided by the frameworks proposed by Messick (1995) and Wolfe and Smith (2007). This approach was utilized to generate a transferable way to form aligned assessment systems and can benefit other EPPs seeking to enhance their practices related to professional readiness to teach, as well as any industry adhering to professional standards.

## Attendance List

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**Janine Krüger**, Nelson Mandela University, South Africa

# Attendance List

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# Attendance List

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# Common Ground Research Networks



# COMMON GROUND

Founded in 1984, Common Ground is committed to building new kinds of knowledge communities, innovative in their media, and forward-thinking in their messages. Heritage knowledge systems are characterized by vertical separations--of discipline, professional association, institution, and country. Common Ground Research Networks takes some of the pivotal challenges of our time and curates research networks that cut horizontally across legacy knowledge structures. Sustainability, diversity, learning, the future of humanities, the nature of interdisciplinarity, the place of the arts in society, technology's connections with knowledge--these are deeply important questions of our time that require interdisciplinary thinking, global conversations, and cross-institutional intellectual collaborations.

Common Ground Research Networks are meeting places for people, ideas, and dialogue. However, the strength of ideas does not come from finding common denominators. Rather, the power and resilience of these ideas is that they are presented and tested in a shared space where differences can meet and safely connect--differences of perspective, experience, knowledge base, methodology, geographical or cultural origins, and institutional affiliation. These are the kinds of vigorous and sympathetic academic milieus in which the most productive deliberations about the future can be held. We strive to create places of intellectual interaction and imagination that our future deserves.

#### MEMBERS OF THE FOLLOWING ORGANIZATIONS



Association of Learned  
and Professional  
Society Publishers



Society  
for Scholarly  
Publishing



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[www.cgnetworks.org](http://www.cgnetworks.org)



The Common Ground Media Lab is the research and technology arm of Common Ground Research Networks. Common Ground Research Networks has been researching knowledge ecologies and building scholarly communication technologies since 1984.

Since 2009, we have had the fortune of being based in the University of Illinois Research Park while building our latest platform – CGScholar. This is a suite of apps based on the theoretical work of world-renowned scholars from the College of Education and Department of Computer Science at the University of Illinois Urbana-Champaign. CGScholar has been built with the support of funding from the US Department of Education, Illinois Ventures, and the Bill and Melinda Gates Foundation.

The CGScholar platform is being used today by knowledge workers as diverse as: faculty in universities to deliver e-learning experiences; innovative schools wishing to challenge the ways learning and assessment have traditionally worked; and government and non-government organizations connecting local knowledge and experience to wider policy objectives and measurable outcomes. Each of these use cases illustrates the differing of knowledge that CGScholar serves while also opening spaces for new and emerging voices in the world of scholarly communication.

We aim to synthesize these use cases to build a platform that can become a trusted marketplace for knowledge work, one that rigorously democratizes the process of knowledge-making, rewards participants, and offers a secure basis for the sustainable creation and distribution of digital knowledge artifacts.

Our premise has been that media platforms—pre-digital and now also digital—have often not been designed to structure and facilitate a rigorous, democratic, and a sustainable knowledge economy. The Common Ground Media Lab seeks to leverage our own platform – CGScholar – to explore alternatives based on extended dialogue, reflexive feedback, and formal knowledge ontologies. We are developing AI-informed measures of knowledge artifacts, knowledge actors, and digital knowledge communities. We aim to build a trusted marketplace for knowledge work, that rewards participants and sustains knowledge production.

With 27,000 published works and 200,000 users, we have come a long way since our first web app twenty years ago. But we still only see this as the beginning.

As a not-for-profit, we are fundamentally guided by mission: to support the building of better societies and informed citizenries through rigorous and inclusive social knowledge practices, offering in-person and online scholarly communication spaces

## Supporters & Partners

As they say, "it takes a village." We are thankful for the generous support of:



And to our Research Network members!

[www.cgnetworks.org/mediablab](http://www.cgnetworks.org/mediablab)



United Nations  
Climate Change

CLIMATE  
NEUTRAL NOW

Climate change is one of the most pressing problems facing our world today. It is in the interests of everyone that we engage in systemic change that averts climate catastrophe. At Common Ground Research Networks, we are committed to playing our part as an agent of transformation, promoting awareness, and making every attempt to lead by example. Our Climate Change: Impacts and Responses Research Network has been a forum for sharing critical findings and engaging scientific, theoretical, and practical issues that are raised by the realities of climate change. We've been a part of global policy debates as official observers at COP26 in Glasgow. And we are signatories of the United Nations Sustainability Publishers Compact and the United Nations Climate Neutral Now Initiative.

## Measuring

In 2022 we start the process of tracking and measuring emissions for all aspects of what we do. The aim is to build a comprehensive picture of our baselines to identify areas where emissions can be reduced and construct a long-term plan of action based on the GHG Emissions Calculation Tool and standard established by the United Nations Climate Neutral Now Initiative.

## Reducing

At the same time, we are not waiting to act. Here are some of the “low hanging fruit” initiatives we are moving on immediately: all conference programs from print to electronic-only; removing single-use cups and offering reusable bottles at all our conferences; working closely with all vendors, suppliers, and distributors on how we can work together to reduce waste; offering robust online options as a pathway to minimize travel. And this is only a small sample of what we'll be doing in the short term.

## Contributing

As we work towards establishing and setting net-zero targets by 2050, as enshrined in the Paris Agreement and United Nations Climate Neutral Now Initiative, and to make further inroads in mitigating our impacts today, we are participating in the United Nations Carbon Offset program. As we see climate change as having broad social, economic, and political consequences, we are investing in the following projects.

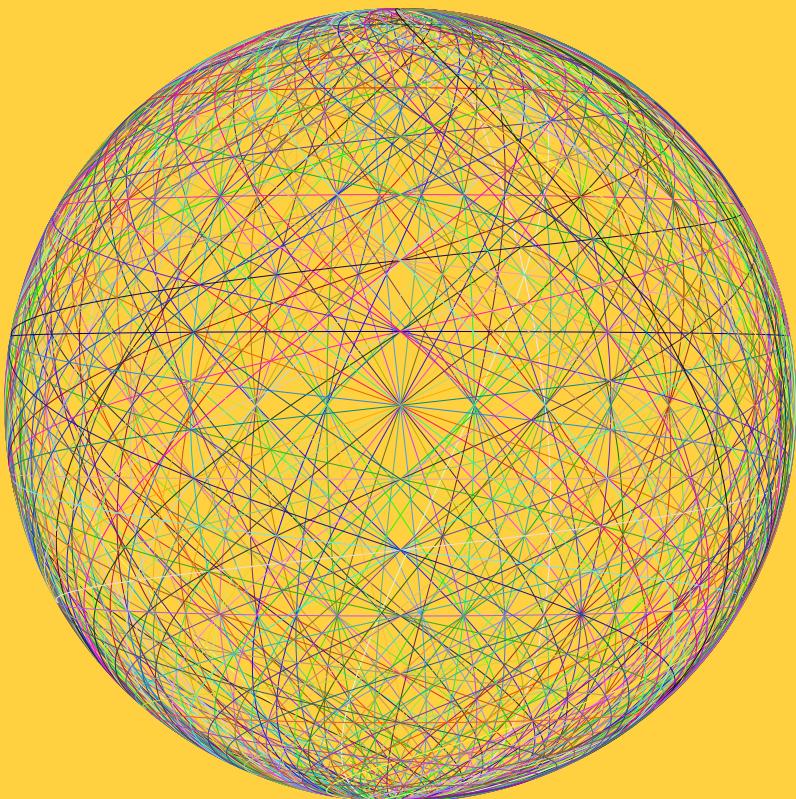
- Fiji Nadarivatu Hydropower Project
- DelAgua Public Health Program in Eastern Africa
- Jangi Wind Farm in Gujarat

## Long Term Goals

We're committing to long-term science-based net-zero targets for our operations – and we believe we can do this much sooner than 2050. We'll be reporting annually via The Climate Neutral Now reporting mechanism to transparently communicate how we are meeting our commitments to climate action.

[www.cgnetworks.org/about/climate-pledge](http://www.cgnetworks.org/about/climate-pledge)

# **XXXI Congreso Internacional sobre Aprendizaje**



**Los retos convergentes de la educación inclusiva:  
Competencias interculturales y alfabetización digital en  
contextos globales**

**UNIVERSIDAD DE UTRECHT, UTRECHT, PAÍSES BAJOS 10-12 DE JULIO DE 2024**





# Cartas de bienvenida



Estimados Participantes del Congreso Internacional sobre Aprendizaje:

Es un honor darles la bienvenida a Utrecht y en concreto al XXXI Congreso Internacional sobre Aprendizaje, titulada " Los retos convergentes de la educación inclusiva: Competencias interculturales y alfabetización digital en contextos globales". Este congreso, de carácter híbrido, se llevará a cabo del 10 al 12 de julio de 2024, brindando una oportunidad excepcional para el intercambio de ideas tanto en persona como a través de la plataforma CGScholar.

Con una historia que se remonta a su fundación en 1989, la Red de Investigación sobre el Aprendizaje se ha consolidado en torno a la preocupación compartida por el aprendizaje en todas sus manifestaciones, ya sea en entornos formales o informales, y abarcando todos los niveles educativos, desde la primera infancia hasta la educación de adultos, comunitaria y vocacional. Nuestro propósito es forjar una comunidad epistémica donde podamos establecer conexiones interdisciplinarias, superar barreras geográficas y culturales, y abordar de manera conjunta los desafíos y las oportunidades que enfrentamos en el ámbito educativo.

La Universidad de Utrecht se enorgullece de ser la sede de este prestigioso congreso. Como institución, estamos firmemente comprometidos con la promoción de prácticas educativas inclusivas y accesibles para nuestra comunidad internacional, y extendemos este compromiso a todos los participantes de la conferencia.

Utrecht, una ciudad de notable legado medieval, ofrece una riqueza de experiencias históricas y culturales que podrán descubrir durante su estancia. Desde la imponente Catedral de San Martín hasta los diversos edificios que componen nuestro campus universitario, les animamos a explorar la diversidad y la historia que esta ciudad y su entorno ofrecen.

Les deseamos una experiencia enriquecedora durante la conferencia y una estancia placentera en Utrecht.

Atentamente,

**Kristi Jauregi-Ondarra**  
**Christopher Jenks**  
Presidentes del Congreso  
Utrecht University

Estimados participantes del Congreso:

Es un gran placer darles la bienvenida al **XXXI Congreso Internacional sobre Aprendizaje** Les agradezco a todos el compartir sus trabajos con el resto de nuestra Comunidad.

Durante más de 30 años, Common Ground Research Networks ha invertido en el desarrollo de tecnologías que buscan romper las barreras de acceso en la comunicación académica. En cada fase, hemos construido espacios para apoyar el diálogo interdisciplinario, antes de que estos enfoques se pusieran tan de moda; fuimos capaces de conectar voces internacionales cuando las disciplinas a menudo estaban aisladas en silos nacionales; y apoyamos siempre una agenda de acceso e igualdad, al ofrecer vías y oportunidades para voces diversas.

Ahora proponemos otro tipo de intervención: construir una infraestructura de comunicación académica para un futuro mejor. Nuestro modelo mixto busca trascender los límites físicos al ofrecer un espacio para extender el contenido del Congreso en persona a pasarlo a un formato virtual, lo que garantiza que los delegados online tengan los mismos espacios participativos y experiencias dentro de la plataforma CGScholar. Al mismo tiempo, el modelo ofrece a los participantes un recurso con acceso a un espacio social donde los demás participantes pueden mantenerse conectados mucho después de que finalice el Congreso.

Para nosotros, el modelo mixto es más que un acercamiento a la tecnología. Estamos utilizando este filtro conceptual para mejorar nuestro objetivo:

- Disciplinas mixtas como un enfoque para las prácticas de investigación interdisciplinarias.
- Afinidades mixtas como una forma de abordar una política compartida para paradigmas de reconocimiento y redistribución.
- Voces mixtas como una forma de considerar dónde ocurre la investigación dentro y fuera de la academia.
- Ideas mixtas como terreno común para un nuevo sentido cívico.

También estamos comprometidos a ser líderes en la industria. Desde 2021 formamos parte del Pacto de editores para el logro de los objetivos de desarrollo sostenible de Naciones Unidas. Lanzado en colaboración con la Asociación Internacional de Editores, el pacto "presenta 10 puntos de acción que los editores, las asociaciones editoriales y otros pueden comprometerse a emprender para acelerar el progreso hacia el logro de los Objetivos de Desarrollo Sostenible (ODS) para 2030. Los signatarios aspiran a desarrollar prácticas sostenibles y actuar como defensores de los ODS, publicando libros y revistas que ayudarán a informar, desarrollar e inspirar acciones en esa dirección".

Permitanme agradecerles de nuevo por su participación, por confiar su trabajo a Common Ground Research Networks. Agradezco igualmente a nuestros socios y colegas por la organización de este evento que no acaba nunca y que tiene una extensión continua en nuestra plataforma CGScholar.

Reciban un cordial saludo y quedo a su disposición para cualquier asunto que pueda ser de su interés.



Dr. José Luis Ortega Martín  
Director Científico de CGRN en español



# Red de Investigación de Aprendizaje

# Enfoque e intereses



Fundada en 1989, la Red de Investigación de Aprendizaje se reúne en torno a un interés común por el aprendizaje —en sus vertientes tanto formal como informal— abarcando todos sus niveles: desde el aprendizaje durante la primera infancia, pasando por el periodo escolar, enseñanza secundaria y universitaria, hasta la educación para adultos que se desarrolla en las diferentes poblaciones y ámbitos laborales.

## Aprendizaje y educación: Amplitud y profundidad

Aprender es más que la educación. Los humanos nacen con la capacidad innata de aprender, y dicho aprendizaje nunca cesa a lo largo de la vida.

El aprendizaje acontece simplemente cuando las personas tratan entre sí, interactúan con el mundo natural y se mueven por el mundo que han construido. Ciertamente, una de las cosas que nos distinguen como seres humanos es nuestra enorme capacidad de aprendizaje. Otras especies también aprenden, desde el más pequeño de los insectos al más inteligente los chimpancés. Pero ninguna tiene prácticas pedagógicas o instituciones educativas. En consecuencia, el modo principal en que nuestra especie se desarrolla con el tiempo es mediante las adaptaciones biológicas de la evolución. El cambio es natural y es lento.

La educación hace que el aprendizaje humano sea distinto al aprendizaje de cualquier otra criatura. El aprendizaje permite a los humanos escapar de los estrictos determinismos de la naturaleza. Les proporciona las herramientas con las que comprenderse a sí mismos y a su mundo, con las que transformar sus condiciones de vida, para mejor o para peor.

La educación es la capacidad peculiarmente humana de alentar el aprendizaje de manera consciente, así como de crear contextos sociales especialmente diseñados para dicho propósito: las instituciones educativas. El aprendizaje es cotidiano y sucede naturalmente, en todo tiempo y lugar. La educación —incluyendo las instituciones, currículum y pedagogías— es un aprendizaje prediseñado.

## El arte y la ciencia de la enseñanza

La enseñanza y el aprendizaje son integrales a nuestra naturaleza humana.

La enseñanza acontece en todas partes. Muchos son buenos por naturaleza para enseñar: son pacientes, explican con claridad, y lo suficiente, pero no demasiado, de manera que el alumno cobra conciencia de que están dominando algo gradualmente, sólo que con algo de apoyo personal. Se puede hallar la práctica de la enseñanza puesta en acción en cualquier parte y en la vida cotidiana. De hecho, es imposible imaginar el día a día sin el aprendizaje.

Enseñar es también una vocación y una profesión. Las personas que se dedican a la enseñanza son buenas en su trabajo cuando desarrollan y aplican la disposición y sensibilidad propia de los buenos profesores, que son también profesores en su vida cotidiana.

Pero la profesión docente es mucho más que tener una capacidad natural bien puesta en práctica. También hay una ciencia de la educación, que incorpora el método y el razonamiento al arte docente, y que está respaldada por un corpus de conocimiento especializado. Esta ciencia pretende responder a cuestiones fundamentales: ¿Cómo ocurre el aprendizaje? ¿Cómo organizamos a los docentes para que sean más efectivos? ¿Qué es lo que funciona en la docencia? Y cuando funciona, ¿cómo lo sabemos? La ciencia de la educación busca responder estas preguntas de manera reflexiva y analítica.

# Enfoque e intereses



## Prácticas de aprendizaje

El aprendizaje es el modo en que una persona o un grupo llega al conocimiento, y el conocimiento consiste en diversos tipos de acción.

En el aprendizaje, el conocedor se posiciona en relación con lo conocido, y ambos se unen. El conocimiento conlleva acción y experimentación, conceptualización, análisis y dedicación, por ejemplo.

El aprendizaje aporta su propia persona al acto del conocimiento, su propia subjetividad. Cuando este acto se alcanza, la persona se transforma. Sus horizontes de conocimiento y de actuación se han expandido.

El aprendizaje se puede analizar en tres niveles: "Pedagogía" o microdinámica de los momentos de enseñanza y aprendizaje; "curriculum" o el diseño de áreas particulares de conocimiento; "educación" o el marco general institucional en el que se sitúan la pedagogía y el curriculum.

La pedagogía es un proceso deliberado y planificado por el cual una persona ayuda a otra a aprender. Esto es lo que los Pueblos Primitivos realizaban a través de ritos formales de paso, de la infancia a la edad adulta y de esta a la ancianidad, aprendiendo la ley, la espiritualidad y la naturaleza. Es también el modo en que los profesores de la educación moderna, masiva e institucionalizada han organizado a los alumnos en las aulas y en su proceso. La pedagogía es la ciencia y práctica de la dinámica del conocimiento. La evaluación es la medida de la pedagogía, y consiste en interpretar la forma y extensión de la transformación del aprendiz.

El curriculum es el contenido sustantivo del aprendizaje, así como su organización en temas y materias —matemáticas, historia, educación física y otras por el estilo. En lugares de docencia formal y sistemática, la pedagogía se produce en estos marcos generales donde el proceso de unión entre sujeto y objeto de conocimiento se dota de orden y estructura. Frecuentemente tienen una metodología y un contenido específico, y de aquí provienen las distintas disciplinas. Podemos preguntarnos cuál es la naturaleza y el futuro de la "literatura", "cálculo", "ciencias", "historia", "sociales", "educación física" y otras. ¿Cómo se relacionan entre sí? ¿Cómo se relacionan con un mundo sujeto a una dinámica de transformación? ¿Cómo evaluamos su efectividad curricular?

La educación se refiere normalmente a comunidades formales de aprendizaje, como las instituciones del colegio, instituto y universidad que aparecieron con la emergencia de la escritura como herramienta de la administración pública (por ejemplo, para formar mandarines o funcionarios públicos en la China imperial o los escribas del alfabeto cuneiforme en Mesopotamia); o como apoyo de las religiones basadas en textos sagrados (así, la madraza islámica o el monasterio cristiano); y para transmitir conocimiento y sabiduría formalmente desarrollado (la Academia de la antigua Atenas o la enseñanza confuciana china).

El aprendizaje se produce siempre y en todas partes. Es intrínseco a la naturaleza humana. La educación, sin embargo, se produce a través de mecanismos comunitarios diseñados, como las instituciones de educación, infantil y adulta, la escuela, los institutos profesionales y la universidad. En ocasiones también se produce de modo informal o semiformal, en contextos cuyo motivo principal es comercial o comunal, incluyendo centros de trabajo, grupos comunales, hogares o lugares públicos.

## Hacia una ciencia de la educación

¿Qué es esta institución suprema, la educación?

En su manifestación más visible consiste en formas institucionales: escuelas, institutos y universidad. Pero entendida de modo más extenso, la educación es un proceso social, una relación entre enseñanza y aprendizaje. Como actividad profesional, es una disciplina.

# Enfoque e intereses



La ciencia de la educación analiza la pedagogía, el currículum y las instituciones educativas. Es un cuerpo disciplinar de conocimiento sobre el aprendizaje y la enseñanza, sobre el modo en que estas prácticas se conciben y se realizan.

La palabra “ciencia” o “disciplina” se refiere a un tipo privilegiado de conocimiento creado por personas capacitadas para ello que principalmente trabajan en trabajos de investigación, académicos o docentes. Implica una experimentación cuidadosa y una observación particular. Los científicos sistemáticamente exploran los fenómenos, descubren hechos y patrones que gradualmente se constituyen en teorías para describir el mundo. Con el tiempo, las creemos y las atribuimos a la autoridad científica.

Desde esta perspectiva, podríamos crear una ciencia de la educación que se centre en el cerebro como entidad biológica y en la mente como fuente de comportamientos (ciencia cognitiva). También podríamos diseñar experimentos con los que explorar cuidadosamente los hechos del aprendizaje para averiguar qué es lo que funciona y lo que no. Como la ciencia médica, los docentes podrían suministrar ciertas dosis de medicina educativa y otros un placebo, para ver si una intervención particular arroja mejores resultados; así son las pruebas controladas de métodos experimentales.

Sin embargo, frecuentemente necesitamos saber más. Ciertamente, es útil saber cómo funciona la mente, pero ¿qué sucede con las condiciones culturales que también conforma al sujeto pensante? Necesitamos pruebas sustanciales acerca de qué tipos de intervenciones educativas son realmente útiles, pero ¿y si la hipótesis de la investigación o los test que empleamos para evaluar los resultados sólo pueden medir un estrecho margen de capacidades y de conocimiento? ¿Y si las pruebas demuestran que la intervención ha funcionado pero los discentes no continúan un currículum que se ha amoldado a dichas pruebas? ¿Y si los test sólo miden los hechos que ellos mismos esperan que los discentes adquieran, a través de respuestas simples o complejas de sí o no?

Un crítico de tales pruebas estandarizadas podría preguntar qué sentido tiene su empleo en un mundo donde la resolución de problemas y la creatividad son cada vez más valoradas, donde puede haber más de una respuesta válida y útil a la mayoría de las preguntas importantes. Por estas razones, necesitamos operar con una comprensión más amplia de la disciplina educativa, basada a su vez en una definición más amplia de la ciencia que la que ofrecen los métodos experimentales.

## Una ciencia interdisciplinaria

La disciplina de la educación se basa en la ciencia del aprendizaje, es decir, el modo en que las personas acceden al conocimiento.

Es una ciencia que investiga aquello que es el conocimiento. Se centra en cómo aprenden los infantes, los jóvenes y los adultos. La educación, entendida como ciencia, es una forma especializada de conocimiento. Consiste en conocer cómo se produce el conocimiento y cómo se desarrollan las capacidades del conocer. En cierto sentido, es la ciencia de todas las ciencias. También trata sobre la organización de la enseñanza para facilitar el aprendizaje formal y sistemático, así como las instituciones en las que se produce

Con demasiada frecuencia, se piensa que la educación es una hermana pobre de las demás disciplinas universitarias, tales como las ciencias naturales, las humanidades y las restantes profesiones. Se la tiene como una cooperación a las demás disciplinas antes que como una disciplina en sí misma. Esto se refleja en menos subvenciones para la investigación o menor acceso de estudiantes. Las ciencias de la educación parecen tener menos rigor. Su base disciplinar está tomada prestada de otras ciencias —sociología, historia, psicología, ciencia cognitiva, lingüística, filosofía—, así como del conocimiento sustancial de otras áreas, como literatura, ciencia y matemáticas.

La educación tiene un rango más amplio y más ecléctico que las demás ciencias. Se basa en ciertas ramas disciplinarias: filosofía del conocimiento o epistemología, ciencia cognitiva de la percepción y del aprendizaje, historia de las instituciones modernas, sociología de las diversas comunidades, lingüística y semiótica de la enseñanza, por nombrar algunas. Estas conforman la disciplina educativa, que es más que una disciplina, sino más bien un esfuerzo interdisciplinario.

# Enfoque e intereses



## La educación como ciencia de las ciencias

La educación es el terreno en el que crecen todas las demás disciplinas.

Ninguna disciplina puede implantarse, sea en un colegio o en una universidad, si no es por medio de la educación. Ninguna disciplina se aprende si no es por la enseñanza. Un lector sólo puede conocer una disciplina a través de la educación, aprendiendo el acervo cognoscitivo propio de la misma. Así, la educación es más que interdisciplinariedad, más que amalgama entre distintas ciencias. Es una metadisciplina, fundamento práctico de todas las disciplinas. Es la disciplina de las disciplinas.

La educación es la investigación sistemática del modo en que los humanos acceden al conocimiento. Se centra en la enseñanza formal e institucionalizada en todos sus niveles, desde preescolar hasta la escuela, el instituto y la universidad. También examina los procesos del aprendizaje informal, esto es, cómo los infantes aprenden en casa o cómo los niños y adultos aprenden a usar un interfaz o a jugar a un juego concreto. También trata sobre cómo aprenden los grupos y organizaciones, recopilando el conocimiento de comunidades, profesiones y trabajos. De hecho, puesto que el conocimiento es necesario y se usa en todas partes, también el aprendizaje ocurre en todas partes. No hay parte de nuestras vidas donde la disciplina de la educación no pueda proporcionar una perspectiva útil.

Entonces, quizás la educación sea más que un lugar interdisciplinario que recoge los retazos de las demás disciplinas —una pizca de sociología, un poco de organización—. La educación debería ser la fundación metadisciplinaria de todas las disciplinas. Es la ciencia del conocimiento, nada menos.

La metadisciplina de la educación indaga el aprendizaje, cómo accedemos al saber y ser. Analiza cómo aprenden las personas y los grupos y cómo llegan a ser lo que son. Es una exploración expansiva del conocimiento. Busca conocer el modo de conocer y cómo se desarrollan las capacidades de conocer.

## La educación es la nueva filosofía

¿Y si considerásemos a la educación desde esta perspectiva más amplia y ambiciosa?

Si pensásemos en estos términos, entonces la agenda intelectual y práctica de la educación sería nada menos que explorar las bases y la pragmática del conocimiento humano, su devenir y su identidad. La educación plantea esta cuestión protodisciplinaria: ¿Cómo llegamos a conocer y a ser, individual y colectivamente? Si esta es la pregunta central de la educación, entonces ¿cabría discutir que es la fuente de todas las demás disciplinas? Es el medio por el que estas llegan a ser.

La filosofía solía reclamar esta posición metadisciplinaria. Era la disciplina donde los estudiantes no sólo pensaban, sino que pensaban sobre el pensamiento. No obstante, la filosofía durante décadas se ha ido volviendo irrelevante. Está demasiado atada a las palabras, es demasiado obscura, demasiado formal y demasiado desconectada de la experiencia práctica y viva.

Pero las metacuestiones de la filosofía aún necesitan ser respondidas. La educación quizás pueda ocupar la antigua posición de la filosofía como disciplina de disciplinas, y hacerlo de modo más unificador y relevante de lo que jamás logró la filosofía. La educación es la nueva filosofía.

## Invertir en educación para una Sociedad del Conocimiento

A estas ambiciones intelectuales se le añaden otras referidas al papel de la educación en el discurso público y en la realidad social cotidiana. Estos deberían ser buenos tiempos para el educador.

# Enfoque e intereses



Los políticos y las figuras de la industria nos dicen que el conocimiento es un factor clave de la producción y una base fundamental de la competitividad a nivel personal, empresarial y nacional. Dado que el conocimiento es producto del aprendizaje, la educación es más importante que nunca. Por esto la educación se ha convertido en un tema relevante para el discurso público.

Ahora más que nunca, se dice que la educación es fundamental para el proceso social y económico. Esto no necesariamente se traduce en una mayor inversión pública en educación, pero la retórica actual sobre la importancia de la educación le otorga a los educadores un peso mucho mayor en el discurso público del que se había tenido hasta ahora.

Dicho simplemente, en una economía del conocimiento en la que cada vez más trabajos requieren un mayor conocimiento, las escuelas deben hacer cuanto puedan para solventar los saltos cognitivos. Si pueden realizar esto, entonces mejorarán las desigualdades materiales del sistema. La escuela, dicho en otras palabras, tiene una nueva oportunidad, una nueva responsabilidad y un nuevo desafío para construir sociedades en las que haya una mayor inclusión de clases sociales cuyo acceso a los recursos materiales ha estado históricamente limitado.

A pesar de esto, los educadores luchan por encontrar los recursos necesarios para satisfacer las crecientes expectativas, aún con todo cuanto se habla sobre la "sociedad del conocimiento" y la "nueva economía". Podemos mostrar un alto grado de escepticismo ante esta retórica, a juzgar por los problemas que afrontan los docentes. No obstante, debemos cribar todo lo que sea retórica y lo que sea genuinamente nuevo. Debemos aprovechar la deriva del discurso público para ocupar un papel central. Esta es nuestra oportunidad: El tema del conocimiento no es ni más ni menos que el tema del aprendizaje. Sin duda, este nuevo tipo de sociedad necesita un nuevo tipo de aprendizaje y un nuevo estatus social para la educación. Es nuestro papel como educadores apoyar la educación y reclamar una redistribución de los recursos sociales necesarios para satisfacer las expectativas de expansión.

## Diseños para un futuro social: Hacia un nuevo aprendizaje

¿Cómo podemos imaginar una sociedad mejor que sitúe a la educación en el centro?

Este centro puede ser económico en el sentido de que está vinculado a la prosperidad material y a la ambición personal. Del mismo modo, la educación también es un espacio para reimaginar un mundo nuevo y mejor que produzca beneficios materiales, ambientales y culturales para todos. La educación es un espacio de posibilidades abiertas para el crecimiento personal, la transformación social y la profundización en la democracia. Esta es la agenda del "nuevo aprendizaje", explícita o implícitamente. Esta agenda se mantiene si nuestro trabajo y pensamiento es expansivo y filosófico.

Si tuviéramos que escoger una sola palabra para caracterizar la agenda de la "Nuevo Aprendizaje", esta sería "Transformativo". El nuevo aprendizaje no se basa sólo en una nueva lectura, sino que también es una agenda optimista en la que los educadores pueden contribuir constructivamente al cambio. Si el conocimiento es central en la sociedad contemporánea como sostienen los políticos y los seguidores de la "nueva economía", entonces los educadores deben asumir su agenda y posición como fuerzas del cambio. Tenemos la responsabilidad profesional de ser agentes del cambio que diseñan la educación del futuro y quienes, al hacerlo, también están diseñando el futuro.

Podría entenderse como un conservadurismo sensible, sensible por ser realista ante las fuerzas contemporáneas de la tecnología, la globalización y el cambio cultural. O podría verse como una agenda emancipadora que aspira a forjar un futuro distinto del presente poniendo de relieve todos sus aspectos críticos —pobreza, medio ambiente, diferencia cultural y sentido existencial—. En otras palabras, la transformación puede ser pragmática (permitiendo a los discentes hacer lo más adecuado en unas condiciones sociales concretas) o puede ser emancipadora (hacer del mundo un lugar mejor) o puede combinar ambos.

# Enfoque e intereses



En el mejor de los casos, el nuevo aprendizaje transformativo incorpora un punto de vista realista de la sociedad contemporánea, esto es, de los tipos de conocimiento y las capacidades de aprendizaje que los niños necesitan desarrollar para ser buenos trabajadores en una “economía del conocimiento”; para ser buenos ciudadanos de una sociedad globalizada, cosmopolita; para ser personalidades equilibradas en un contexto social que permite un rango de elección vital tan amplio que resulta sobrecogedor. Nutre la sensibilidad social de las personas que entienden que están determinando el mundo mediante sus acciones, del mismo modo que están determinados por ese mundo. Crea un tipo de persona que entiende que sus necesidades sociales están inextricablemente unidas a su responsabilidad para trabajar por el bien común, en la medida en que estamos más y más cercanamente conectados con redes sociales expansivas e interactivas.

La cuestión no es simplemente cuantitativa. No consiste simplemente en proporcionar más educación a más personas. Mientras que muchas naciones perseveran en estructuras educativas fundadas en el siglo XIX o incluso antes, la economía del conocimiento demanda una aproximación creativa y diferente a la enseñanza. Las escuelas, al menos en su forma tradicional, no pueden dominar el paisaje del siglo XXI. Las segregaciones del pasado deben desaparecer.

## Diversidad de aprendices

No existe aprendizaje sin aprendices, en toda su amplia diversidad.

Es una característica distintiva de la Nueva Enseñanza que reconoce la enorme variabilidad de circunstancias vitales que los discentes aportan al aprendizaje. La demografía es insistente: son causas materiales (clase, localidad, circunstancias familiares), corpóreas (edad, raza, sexo y sexualidad, características mentales y físicas), y simbólicas (cultura, idioma, género, afinidad y persona). Este punto de partida conceptual ayuda a explicar los patrones narrativos del éxito social y educativo.

Más allá de estas cuestiones demográficas están las personas reales cuyo aprendizaje y rango de posibilidades de aprendizaje son ilimitados y circunscritos por lo que ya han aprendido y aquello en lo que se han convertido mediante dicho aprendizaje. Aquí hallamos toda la diversidad material de experiencias humanas, disposiciones, sensibilidades, epistemologías y visiones del mundo. Siempre son más variadas y complejas que la simple demografía sugiere a primera vista. El aprendizaje funciona o fracasa hasta el punto de abarcar las identidades y subjetividades de quienes aprenden. Produce oportunidad, igualdad y participación. El fracaso produce fracaso, desigualdad y desventaja.

Las preguntas que hoy afrontamos como educadores son grandes, y los desafíos a veces son desalentadores. Por ejemplo, ¿cómo nos aseguramos de que la educación cumple su misión democrática si hay una enseñanza cualitativa, un currículum transformativo y un programa que acentúa la desigualdad? Detectar a los grupos que padecen desventajas y están “en peligro” es una responsabilidad esencial de los educadores, no ya únicamente por argumentos morales, sino también por el peligro social y económico de permitir la exclusión de grupos e individuos.

## Agendas Educativas

Los profesionales de la educación del mañana no serán personas que simplemente pongan en práctica sistemas recibidos, estándares, estructuras organizativas y éticas profesionales.

En este tipo de extraordinaria transformación social y de incertidumbre, los educadores deben considerarse como diseñadores de futuros sociales, buscando nuevas vías para satisfacer las necesidades docentes de nuestras sociedades y, al hacerlo, situar a la educación en un indiscutible papel central.

# Enfoque e intereses



Las ideas educativas potentes —acerca de cómo las personas actúan y construyen el conocimiento en un contexto y en colaboración con otros, por ejemplo— podrían convertirse en ideas sociales rectoras en áreas más privilegiadas actualmente, como son los negocios y la tecnología. Quizá, si logramos situar la educación en el centro del diseño de la sociedad futura, podríamos incluso ser capaces de garantizar que la educación sea innovadora y dotada adecuadamente.

En todos sus aspectos, la educación está en un momento de transición. La idea de la “Nueva Enseñanza” contrasta lo que la educación ha sido en el pasado con los cambios que experimentamos hoy y con una visión imaginativa de las posibles características de los entornos de aprendizaje en un futuro cercano. ¿Cómo será aprender y cuál será el trabajo de los profesores? ¿Estamos los educadores bastante bien equipados para responder a las preguntas y afrontar los desafíos que se presentan? ¿Nuestra disciplina nos proporciona los medios intelectuales para afrontar cambios de esta magnitud? Podría ciertamente, pero sólo si concebimos la educación como una ciencia tan rigurosa en sus métodos y tan ambiciosa en su perspectiva como las demás.

La agenda de la educación es intelectualmente expansiva y ambigua en la práctica. Es transformadora del aprendiz, desarrollando trabajadores productivos, ciudadanos participativos y personas plenas. También es transformadora del mundo, puesto que interrogamos a la naturaleza humana del aprendizaje y su papel a la hora de imaginar nuevos modos de ser humano y vivir socialmente: moldear nuestras identidades, forjar nuevos modos de pertenencia, usar las tecnologías, representar nuevos modos de significado y nuevos medios, construir espacios participativos y colaborar para construir y reconstruir el mundo. Son enormes desafíos intelectuales y prácticos.

La educación transformativa es un acto de imaginación para el futuro de la enseñanza y un intento de hallar nuevos modos prácticos de desarrollar aspectos de este futuro en las prácticas educativas del presente. Es una lucha abierta más bien que un destino claro, un proceso antes que una fórmula para actuar. Es un trabajo realizándose.

La ciencia de la educación es un dominio de imaginación social, de experimentación, invención y acción. Es grande. Es ambiciosa. Y es marcadamente práctica.

La Red de Aprendizaje, el congreso, las revistas y los libros proporcionan un foro para dialogar sobre la naturaleza y el futuro de la enseñanza. Son lugares para presentar las investigaciones y reflexiones sobre la educación, tanto en términos generales como en los detalles de la práctica. Intentan construir una agenda para una nueva enseñanza, y de modo más ambicioso, una agenda para un conocimiento social tan bueno como su nombre promete.

# Temas y problemas actuales



## Pedagogía y currículo

Explorar los procesos de elaboración y aplicación de las experiencias de aprendizaje, incluidas las decisiones sobre el contenido (plan de estudios) y las estrategias de instrucción (pedagogía).

### Cuestiones actuales:

- La teoría pedagógica y la instrucción
- El plan de estudios como programa de aprendizaje
- La reforma educativa en los planes de estudios y la instrucción
- La diferenciación y la personalización de la enseñanza
- El conocimiento del contenido y el conocimiento pedagógico de los maestros

## Medición y evaluación

Investigar los procesos para precisar los resultados educativos y el diseño de métodos para medir el aprendizaje del estudiante, la evaluación de la eficacia de las intervenciones educativas o el impacto de los programas educativos en los alumnos, los maestros, las instituciones y la sociedad.

### Cuestiones actuales:

- Los objetivos de la evaluación (diagnóstica, formativa y sumativa)
- La política y la práctica de la responsabilidad educativa
- Inteligencia o habilidad, competencia o capacidad: ¿cuáles son los objetivos medibles de la educación?
- Las estrategias de evaluación (portafolio, evaluación adaptativa, por computadora e integrada)
- Tipos de medición educativa (cualitativa, cuantitativa, cognitiva, afectiva y de desempeño)
- Metodologías de investigación educativa (descriptivas, experimentales, participativas, y de investigación-acción)
- La evaluación de los programas: los propósitos, las estrategias y el papel en la reforma educativa

## Organización educativa y liderazgo

Indagar sobre la organización de los sistemas formales de educación y su impacto en el proceso de enseñanza y aprendizaje. Examinar los problemas de la educación profesional, así como el papel de los administradores y los órganos de gobierno en las instituciones educativas y el entorno.

### Cuestiones actuales:

- Los ambientes de aprendizaje: la forma cambiante tanto de las instituciones educativas como de los lugares donde se produce el aprendizaje
- El papel de las instituciones educativas en la sociedad y/o en el cambio social
- La docencia: el trabajo de los maestros, los roles y las responsabilidades
- Las políticas educativas
- Los objetivos cambiantes de la educación: formar nuevos tipos de trabajadores, ciudadanos e identidades individuales
- Administradores en instituciones educativas: un liderazgo efectivo en una sociedad cambiante



# Temas y problemas actuales

## Aprendizaje en la educación preescolar

Las investigaciones sobre el aprendizaje y el desarrollo en los primeros siete años de vida, así como el impacto de las influencias formales, familiares y socioculturales en el aprendizaje.

### Cuestiones actuales:

- Influencia de la familia y el ambiente social/cultural en el aprendizaje temprano
- La educación infantil: las funciones de la guardería, la educación preescolar y el jardín de niños
- La alfabetización, las artes y la comunicación en la primera infancia
- Habilidades aritméticas y ciencia en la primera infancia

## Educación superior

Los estudios de la educación superior: preocupaciones institucionales (las admisiones, la financiación, el alcance y la calidad de la oferta educativa); estrategias de instrucción y su eficacia con los estudiantes; el ambiente de aprendizaje en la educación superior. También incluye los programas de capacitación docente: su lugar en la universidad, cómo preparar a las nuevas generaciones de maestros para las escuelas del mañana; cuestiones de requisitos y acreditación, así como el equilibrio entre el aprendizaje teórico y el aplicado.

### Cuestiones actuales:

- El futuro de la universidad: su vinculación con el trabajo, la ciudadanía y la identidad
- La enseñanza y el aprendizaje a nivel superior
- Las ecologías del conocimiento: vincular la investigación y la enseñanza
- Formación docente: políticas, programas y prácticas

## Aprendizaje en adultos, comunitario y profesional

Explorar el tema del aprendizaje de los adultos en una variedad de contextos, desde la educación básica hasta la capacitación laboral y el aprendizaje profesional. Incluye los cursos de formación y el desarrollo profesional de los maestros.

### Cuestiones actuales:

- Las oportunidades de aprendizaje formales e informales para adultos
- La educación continua para una sociedad en constante cambio
- La educación profesional continua, la capacitación y el desarrollo laboral
- La formación vocacional para el futuro
- El aprendizaje y otros modelos de enseñanza técnica o especializada
- La educación popular y comunitaria
- La capacitación de maestros y el desarrollo profesional



# Temas y problemas actuales

## Identidad y diversidad de los estudiantes

Reconocer y adaptarse a la diversidad de los alumnos, a la dinámica de la enseñanza y el aprendizaje en diversas comunidades y salones de clase. Considerar el problema de la identidad de los alumnos y la interacción entre los estudiantes, así como las estrategias para promover la justicia social, la comprensión multicultural y la tolerancia.

### Cuestiones actuales:

- La educación incluyente
- La equidad, la participación y las oportunidades
- Cómo cambian las mayorías y las minorías
- La educación especial, las dificultades de aprendizaje y las discapacidades
- La educación internacional, global, multicultural e intercultural

## Tecnologías en el aprendizaje

Explorar el papel de las tecnologías en el aprendizaje, así como la influencia de los procesos de aprendizaje sobre la tecnología.

### Cuestiones actuales:

- Los valores humanos y la tecnología: aprender sobre la tecnología y a través de ella
- Cruzando la brecha digital: el acceso al aprendizaje en el mundo digital
- Las nuevas herramientas: el aprendizaje en línea
- Los mundos y las aulas virtuales: aprendizaje interactivo, a su propio ritmo y autónomo
- El aprendizaje ubicuo: el uso de las posibilidades que los nuevos medios ofrecen
- El aprendizaje a distancia: la reducción de las barreras

## Alfabetización y aprendizaje de idiomas

Las investigaciones sobre el proceso del aprendizaje de la lectura, la escritura y la comunicación utilizando los nuevos medios y la alfabetización multimodal.

### Cuestiones actuales

- La definición de las nuevas literacidades
- Los idiomas de poder: el papel de la alfabetización en el acceso a la sociedad
- La instrucción y la respuesta a las diferencias individuales en la alfabetización
- Lo visual y lo verbal: multiliteracidad y comunicaciones multimodales
- La alfabetización en el aprendizaje: el lenguaje en el aprendizaje de todas las materias
- El papel cambiante de las bibliotecas en la alfabetización
- La educación sobre el lenguaje y el aprendizaje de segundas lenguas
- El aprendizaje de varias lenguas para un mundo multicultural
- Las artes y el diseño en el aprendizaje multimodal
- La computadora, internet y los medios digitales: retos educativos y reacciones



## Educación en ciencias, matemáticas y tecnología

Los estudios sobre las mejores prácticas en la enseñanza y el aprendizaje de las ciencias, las matemáticas y la tecnología.

### Cuestiones actuales

- Disciplinas científicas: el aprendizaje de la física, química, biología y otras ciencias
- El aprendizaje sobre el medio ambiente
- Modos de instrucción (didáctica, reflexiva y colaborativa)
- Pedagogía de las matemáticas
- Aprender sobre las tecnologías y a través de ellas
- Conocimiento del contenido pedagógico por parte de los maestros

# Presidente de la Red de Investigación



## Dr. José Luis Ortega Martín

Profesor, Facultad de Ciencias de Educación, Universidad de Granada, España



**José Luis Ortega** es Catedrático de Universidad del Departamento de Didáctica de la Lengua y la Literatura de la Universidad de Granada. Premio extraordinario de doctorado y premio a la excelencia docente por la Universidad de Granada en 2018, de 2004 a 2008 fue Vicedecano de Relaciones Internacionales y ha ejercido otros cargos como director del secretariado de formación del profesorado y apoyo a la calidad. Ha sido presidente de más de una veintena de congresos internacionales en diferentes países y es miembro del comité científico de diversas revistas académicas. El Dr. Ortega ha impartido clase en numerosas universidades europeas y americanas. Es autor de más de cien publicaciones académicas, incluyendo libros, capítulo y artículos en revistas de impacto sobre bilingüismo, TEFL, preparación del profesorado, administración de aulas y motivación del estudiante. El profesor Ortega ha dirigido recientemente en España un proyecto nacional sobre bilingüismo financiado por el British Council y el Ministerio de Educación de España y ha coordinado durante seis cursos el Máster para la Enseñanza del Español como Lengua Extranjera de la UGR y sigue coordinando la sección de inglés del Máster de Formación del Profesorado de Secundaria, FP y EOI. Además, el profesor Ortega ha dirigido 14 tesis doctorales y cuenta con 3 tramos de investigación y 1 de transferencia. Es Director del Grupo de Investigación HUM-1011 (Didáctica de las Lenguas Extranjeras).

# Comité científico



La **Red de Investigación de Aprendizaje** agradece las contribuciones para su fundación, el apoyo constante y la asistencia continua de los siguientes expertos y académicos de renombre mundial.

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- **Nora Margarita Basurto Santos**, Universidad Veracruzana, México
- **Claudia del Socorro Nieto Cruz**, Universidad Nacional de Colombia, Colombia
- **Salvador Ponce Ceballos**, Universidad Autónoma de Baja California, México
- **Dimitrinka Nikleva**, Universidad de Granada, España
- **Enrico Bocciolesi**, Università degli Studi di Urbino 'Carlo Bo', Italia
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- **Aurora Biedma Torrecillas**, Universidad de Granada, España
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- **Erick Radaí Rojas Maldonado**, Universidad Michoacana de San Nicolás de Hidalgo, México
- **Mario Alberto Vestfrid**, Fundación Argentina de Neurociencias y Ciencias Cognitivas, La Plata, Argentina
- **Marta Alicia Tenutto Soldevilla**, Universidad de Palermo, Argentina
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- **Carmen Vazquez Domínguez**, Universidad de Cádiz, España
- **Rubén González Vallejo**, Università degli Studi di Macerata, Italia
- **Mª Teresa del Olmo Ibáñez**, Universidad de Alicante, España
- **Kristi Jauregi-Ondarra**, Universidad de Utrecht, Países Bajos
- **Raúl Tárraga**, Universidad de Valencia, España
- **Maria Eufemia Freire Tigreros**, Universidad Santiago de Cali, Colombia
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- **Cristina M. Castillo Rodríguez**, Universidad de Málaga, España
- **Rosa M. Rodríguez-Izquierdo**, Universidad Pablo de Olavide, España

# **XXXI Congreso Internacional sobre Aprendizaje**



Fundado en 1989, el **Congreso Internacional sobre Aprendizaje** se reúne en torno a un interés común por el aprendizaje —en sus vertientes tanto formal como informal— abarcando todos sus niveles: desde el aprendizaje durante la primera infancia, pasando por el periodo escolar, enseñanza secundaria y universitaria, hasta la educación para adultos que se desarrolla en las diferentes poblaciones y ámbitos laborales.

## Congresos anteriores:

- 1989 - Universidad Tecnológica, Sydney, Australia
- 1991 - Universidad Tecnológica, Sydney, Australia
- 1993 - Universidad Tecnológica, Sydney, Australia
- 1995 - Townsville, Australia
- 1997 - Centro de Artes Araluen, Alice Springs, Territorio del Norte, Australia
- 1999 - Universiti Sains Malaysia, Penang, Malasia
- 2000 - Universidad RMIT, Melbourne, Australia
- 2001 - Universidad de Atenas en Spetses, Grecia
- 2002 - Universidad Normal de Pekín, China
- 2003 - Instituto de Educación, Universidad de Londres, Reino Unido
- 2004 - Instituto de Ciencias Pedagógicas, La Habana, Cuba
- 2005 - Universidad de Granada, España
- 2006 - Colegio de Maestros Sam Sharpe, Montego Bay, Jamaica
- 2007 - Universidad del Witwatersrand, Johannesburgo, Sudáfrica
- 2008 - Universidad de Illinois, Chicago, EEUU
- 2009 - Universidad de Barcelona, España
- 2010 - Instituto de Educación de Hong Kong
- 2011 - Universidad de Mauricio
- 2012 - Instituto de Educación, Universidad de Londres, Reino Unido
- 2013 - Universidad del Egeo en Rodas, Grecia



- 2014 - Colegio Lander en el Colegio Touro, Nueva York, EEUU
- 2015 - Universidad San Pablo CEU, Madrid, España
- 2016 - Universidad de Columbia Británica, Vancouver, Canadá
- 2017 - Universidad de Hawái en Manoa, Honolulu, EEUU
- 2018 - Universidad de Atenas, Atenas, Grecia
- 2019 - Universidad de Queen Belfast, Belfast, Reino Unido
- 2020 - Universidad de Valencia y Universidad Politécnica de Valencia, Valencia, España (online)
- 2021 - Universidad Jaguelónica, Cracovia, Polonia (online)
- 2022 - Universitat de València, Valencia, España
- 2023 - Universidad de São Paulo, São Paulo, Brasil

# Presidentes del congreso



## Kristi Jauregi Ondarra

Profesor, Facultad de Ciencias de Educación, Universidad de Granada, España



**Kristi Jauregi Ondarra** es profesora titular de la Universidad de Utrecht (Países Bajos), donde imparte clases de grado y maestría sobre pedagogía lingüística, comunicación intercultural y español. Su área principal de investigación es el Aprendizaje de idiomas a través de entornos tecnológicos. Está particularmente interesada en estudiar el papel que desempeña la telecolaboración o el intercambio virtual en mejorar la competencia comunicativa, la conciencia intercultural y la motivación de los estudiantes de L2, y en la remodelación de las creencias, actividades y roles pedagógicos de los profesores de idiomas. Ha participado en el proyecto de la red europea Euroversity y ha iniciado y coordinado diferentes proyectos pedagógicos innovadores (TeCoLa, NIFLAR & TILA), todos financiados por la Comisión Europea. Ha presentado experiencias en conferencias internacionales y ha publicado extensamente en renombradas revistas internacionales.

## Christopher Jenks

Profesor, Universidad de Utrecht, Utrecht, Países Bajos



**Christopher Jenks** is a discourse analyst and intercultural communication scholar. He is a professor and chair of intercultural communication at Utrecht University. Christopher has also worked in the United States, England, South Korea, Hong Kong, and Denmark. He is the author and editor of nine books and has three more coming in 2023 and 2024. Christopher has published extensively in numerous international journals on topics ranging from family mediation to computer-mediated communication.

# Colaboradores

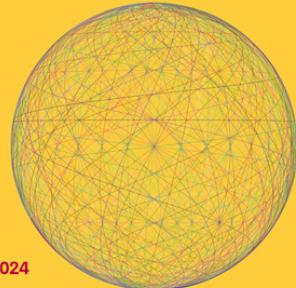




 XXXI Congreso Internacional sobre Aprendizaje

**Los retos convergentes de la educación inclusiva:**  
Competencias interculturales y alfabetización digital  
en contextos globales

 UNIVERSIDAD DE UTRECHT, UTRECHT, PAÍSES BAJOS      10-12 DE JULIO DE 2024



## Los retos convergentes de la educación inclusiva: Competencias interculturales y alfabetización digital en contextos globales

En el actual mundo interconectado, el panorama de la educación evoluciona constantemente. A medida que navegamos por la intersección dinámica de la globalización, la tecnología y la diversidad, los retos a los que se enfrenta la educación inclusiva son cada vez más complejos. El tema del congreso, "Los retos convergentes de la educación inclusiva: Competencias interculturales y alfabetización digital en contextos globales" pretende explorar estas intrincadas cuestiones y arrojar luz con soluciones innovadoras.

El primer enfoque de este congreso es el cultivo de las competencias interculturales. A medida que nuestras sociedades se vuelven más diversas e interconectadas, los educadores tienen la tarea de preparar a los estudiantes para prosperar en entornos multiculturales. Los participantes profundizarán en las estrategias para fomentar la empatía, las habilidades comunicativas y la sensibilidad cultural entre los estudiantes, equipándolos para participar constructivamente en comunidades diversas.

El segundo enfoque gira en torno al papel fundamental de la alfabetización digital en la educación contemporánea. Los rápidos avances tecnológicos remodelan continuamente nuestros entornos de aprendizaje. En el congreso se explorarán formas de aprovechar las herramientas y plataformas digitales para mejorar las prácticas pedagógicas, promover la ciudadanía digital y garantizar un acceso equitativo a la educación.

A lo largo del congreso, los asistentes tendrán la oportunidad de relacionarse con destacados académicos, profesionales y responsables políticos de todo el mundo. Juntos, examinaremos las mejores prácticas, compartiremos los resultados de las investigaciones y entablaremos debates que inviten a la reflexión con el fin de configurar el futuro de la educación inclusiva.

Entre los temas clave que se tratarán figuran:

- Estrategias para integrar las competencias interculturales en los planes de estudios.
- Aprovechamiento de la tecnología para fomentar las aulas inclusivas y la igualdad digital.
- Enfoques pedagógicos innovadores para cultivar la conciencia intercultural.
- Valoración y evaluación de las competencias interculturales y la alfabetización digital.
- Implicaciones políticas y recomendaciones para promover la educación inclusiva a escala mundial.

Invitamos a educadores, investigadores, promotores y responsables políticos a unirse a nosotros en esta exploración de los retos convergentes a los que se enfrenta la educación inclusiva. Juntos forjaremos un camino hacia un panorama educativo más inclusivo, culturalmente receptivo y digitalmente alfabetizado, garantizando que todos los alumnos estén preparados para prosperar en nuestro mundo cada vez más interconectado.

# Ponentes plenarios



## Ciara R. Wigham

Profesora titular de didáctica y enseñanza de la lengua inglesa, Université Clermont Auvergne, Francia



### "Engaging Languages in Intercultural Virtual Exchange"

**Ciara R. Wigham** is a Senior Lecturer in English Language Teaching and Didactics at Université Clermont Auvergne, France. She teaches on the English language teaching Master's programme and on the pedagogical engineering and digital tools track within the Master's in Education programme. Her main area of research is Computer-Assisted Language Learning (CALL). She is particularly interested in studying multimodal pedagogical communication in online language learning-teaching, teacher education in computer-assisted language learning, and methodologies for structuring interactions from online learning situations into multimodal CMC corpora. She recently published a co-authored book focusing on instruction giving in online language lessons (Satar & Wigham, 2023) and is currently involved in the European E-LIVE project (Engaging Languages for Intercultural Virtual Exchange). She is a permanent member of the the Acté research laboratory Activité, Connaissance, Transmission, Education) and has published extensively on CALL.

## Ana Gimeno

Profesora Titular de Lengua Inglesa, Universitat Politècnica de València (UPV), España



### "¿La digitalización de verdad nos lleva hacia la inclusividad y la democratización de la enseñanza o es una utopía?"

**Ana Gimeno** es Profesora Titular de Lengua Inglesa en el Departamento de Lingüística Aplicada de la Universitat Politècnica de València (UPV), España. Su investigación se centra en el inglés para fines específicos, el aprendizaje de idiomas asistido por ordenador y el aprendizaje integrado de contenidos y lenguas. La profesora Gimeno dirige el grupo de investigación CAMILLE, dedicado a la investigación en CALL y e-Learning. Ha sido Directora de Proyecto de varios proyectos multimedia financiados de investigación y desarrollo de CALL que han dado lugar a la publicación de varios cursos de idiomas en formato digital. En 2016, fue coautora del primer Curso Online Masivo y Abierto (MOOC) de español como lengua extranjera impartido en la plataforma estadounidense edX, que ha atraído a más de medio millón de alumnos de todo el mundo y en 2018 publicó el primer MOOC edX de inglés de nivel intermedio alto, que ha atraído a más de 350000 alumnos. Ana Gimeno es editora asociada de ReCALL (Cambridge University Press) y forma parte del consejo editorial de Computer Assisted Language Learning Journal (Taylor and Francis), además de ser redactora jefe de The EUROCALL Review. Fue Presidenta de la Asociación Europea para el Aprendizaje de Lenguas Asistido por Ordenador (EuroCALL) de 2005 a 2011 y actualmente es Presidenta de la organización mundial para el aprendizaje de lenguas asistido por ordenador, WorldCALL.

# Ponentes plenarios



## Melinda Dooly

Profesora, Departamento de Enseñanza de Lengua y Literatura y de Enseñanza de las Ciencias Sociales, Universidad Autónoma de Barcelona, España



### "Empowering Tomorrow: Nurturing an Inclusive, Digitally Literate Educational Landscape"

**Dr. Melinda Dooly** is Full Professor in the Department of Language & Literature Education and Social Science Education at the Universitat Autònoma de Barcelona. Her principal research addresses technology-enhanced project-based language learning, intercultural communication and 21st century competences in teacher education. She has published widely in international journals and authored chapters and books in this area of study. She is the former (and founding) editor of Bellaterra Journal of Teaching & Learning Language & Literature and co-editor of the book series Telecollaboration in Education (Peter Lang). She is lead researcher of GREIP: Grup de Recerca en Educació, Interacció i Plurilingüisme (Research Centre for Education, Interaction & Plurilingualism). Her current research interests are in the use of Augmented and Virtual Reality in teaching and learning, in particular with young learners.

## Wouter van Joolingen

Professor of Science and Mathematics Education, Freudenthal Institute, Utrecht University, the Netherlands



### "Computational Thinking and Modeling in and beyond Science Education"

**Wouter van Joolingen** is a professor of science and mathematics education at the Freudenthal Institute, Utrecht University. His work focuses on teaching and learning science, including the development of scientific literacy and scientific thinking. Examples are modeling, systems' thinking and mechanistic reasoning. Prominent in his work is the application of digital technology in support of inquiry-based learning and modeling. These applications include computer simulations, modeling tools, as well as augmented and virtual reality. Central is the alignment of human and computer-based instruction with the envisaged learning process. Recent projects include the application of Lesson Study as a means to engage teachers in the design process of science education. In such settings, teams of teachers design lessons together with researchers based on theoretical and practical insight. When teaching the lesson, the focus is on student learning. This approach both leads to deep insights into student learning and improves inclusion as students' individual needs surface in the observations. Wouter has applied Lesson Study in multiple studies, including those into systems thinking, model-based reasoning and sustainability education. In Wouter's view, teachers are always also researchers of their teaching.

# Ponentes plenarios



## Mary Kalantzis

College of Education, University of Illinois, Urbana-Champaign, IL, United States



### "Generative AI: Implications and Applications for Education"

**Mary Kalantzis** was dean of the College of Education at the University of Illinois, Urbana-Champaign, United States from 2006 to 2016. Before this, she was dean of the Faculty of Education, Language and Community Services at RMIT University, Melbourne, Australia, and president of the Australian Council of Deans of Education. With Bill Cope, she has co-authored or co-edited: New Learning: Elements of a Science of Education, Cambridge University Press, 2008 (2nd edition, 2012); Ubiquitous Learning, University of Illinois Press, 2009; Towards a Semantic Web: Connecting Knowledge in Academic Research, Elsevier, 2009; Literacies, Cambridge University Press 2012 (2nd edition, 2016); A Pedagogy of Multiliteracies, Palgrave, 2016; and e-Learning Ecologies, Routledge, 2016.

## Bill Cope

College of Education, University of Illinois, Urbana-Champaign, IL, United States



### "Generative AI: Implications and Applications for Education"

**Bill Cope** is a professor in the Department of Education Policy, Organization & Leadership at the University of Illinois, Urbana-Champaign. He and Mary Kalantzis are directors of Common Ground Research Networks, a not-for-profit organization developing and applying new publishing technologies. His research interests include theories and practices of pedagogy, cultural and linguistic diversity, and new technologies of representation and communication. His and Kalantzis' recent research has focused on the development of digital writing and assessment technologies, with the support of a number of major grants from the US Department of Education, the Bill and Melinda Gates Foundation, and the National Science Foundation. The result has been Scholar, a multi-modal writing and assessment environment.

# Investigadores emergentes



Cada año se otorga un mínimo de Becas para Investigadores Emergentes a estudiantes de posgrado e investigadores que tienen interés en los temas del congreso. Aquí les presentamos a los ganadores de beca de 2024.

## **Johnnatan Astúa González Alberto E. Lopez-Carrion Margarita Calderón Solís**

Universidad Latina de Costa Rica  
Costa Rica

Universitat de València  
Espanña

Universidad Nacional de  
Educación  
Ecuador



## **Luz Mariana Rivas Villatoro**

Universidad de Costa Rica  
Costa Rica

## **Eduardo Amador**

**Enríquez**  
Universidad Autónoma de  
Querétaro  
México

## **Claudia Orozco Rodríguez**

Universidad de Guadalajara,  
México



# Investigadores emergentes



## Álvaro López Enríquez

Universidad de Granada  
España



## Daniel Bautista Ledesma

Universidad Nacional  
Autónoma de México  
México



## Daniela Colorado Orozco

Universidad de Leon  
España



## Ruth González Bordas

Universidad de Costa Rica  
Costa Rica



## Victoria Alcalá

UBA/UCA  
Argentina



## Lilia Elena Rodríguez Estrada

Universidad Internacional de la Rioja  
España



## Mª Lina Higueras Rodríguez

Universidad de Granada  
España



## José Manuel Ortiz- Marcos

Universidad de Granada  
España



# Investigadores emergentes



**Jennifer Serrano García**

Universidad de Granada  
España



**Magaly Sierra Vite**

Universidad Autónoma del  
Estado de Hidalgo  
México



**Perla Rosario Suazo**

**Miranda**

Escuela Normal Indígena  
Intercultural Bilingüe Jacinto  
Canek  
México



**Manuela Catalá Pérez**

Universidad San Jorge  
Zaragoza



**Rocío Rodríguez Padín**

Universidade da Coruña  
España



# Resúmenes de 2024

# **Tema destacado 2024 - Los retos convergentes de la educación inclusiva: Competencias interculturales y alfabetización digital en contextos globales**

## **La competencia digital en empresas familiares de artesanos de la Sierra Gorda Queretana (México): Análisis de uso digital en empresas familiares**

**Eduardo Amador, Docente Investigador, Facultad de Ingeniería, Universidad Autónoma de Querétaro, Querétaro, México**

La Sierra Gorda Queretana es una Reserva de la Biosfera por lo que el desarrollo industrial no es una de las vocaciones factibles; sin embargo, se ha convertido en un sitio de afluencia turística, lo que genera demanda de ciertos servicios como hotelería, entretenimiento, alimentos y bebidas, pero también los artesanos forman parte importante de esta oferta. Sin embargo, la tendencia en el uso de las tecnologías digitales cada vez toma mayor importancia en todos los sectores y este no es la excepción. Pero si algo caracteriza a este grupo es su alto grado de vulnerabilidad y marginación lo que representa una brecha importante en la digitalización. Aun así existe la intención por parte de ellos de hacer uso de estas ventajas tecnológicas para poder colocar sus productos a mayor número de turistas y además poder ofrecerlas en alguna plataforma digital con la intención de cubrir un mercado nostálgico y cultural, por lo que se considera importante conocer el grado de competencias digitales con los que cuentan actualmente las empresas familiares de productores y artesanos que participan en el Tianguis Regional Universitario, actividad organizada por la Universidad Autónoma de Querétaro. Este análisis ofrecerá un panorama claro de las necesidades de formación así como la posibilidad del diseño instruccional que favorezca el aprendizaje de los integrantes de esta actividad creativa, cultural y comercial.

# Tema destacado 2024

## **Hacia un modelo formativo dignificante a partir de una propuesta constructivista reforzada con las competencias interculturales en la formación universitaria de profesionales en Gastronomía, Hotelería y Turismo**

**Johnnatan Astúa, Coordinador Académico, Facultad de Ciencias Empresariales y Hospitalidad, Universidad Latina de Costa Rica, Heredia, Costa Rica**

La actualidad educativa en la enseñanza superior es retadora, la consolidación de políticas y estrategias educativas innovadoras, inclusivas y transformadoras lleva a pensar en modelos de educación más interactivos y generadores de una real convivencia entre el estudiante y el docente. Dentro de la formación de profesionales universitarios en Hotelería, Turismo y Gastronomía, si bien el reto es permanente y el compromiso con la educación se mantiene firme según el enriquecimiento y transformación de la propia praxis, no se puede perder de vista que se trata con personas que, tienen sus propias realidades, sueños y metas y que en ese ejercicio somos coadyuvantes, por medio de estas experiencias, en el logro de esas metas de la persona estudiante. ¿Cómo construir con la persona estudiante ese conocimiento, haciéndole ver que se encuentra en ese proceso transformador y que este sea asimilado como tal, partiendo de ese análisis del saber (ético, político y estético)? Esta reflexión lleva entonces a profundizar en la respuesta a esta cuestión y en las posibles herramientas para que, por medio de una pedagogía transformadora se puedan dar acciones propias de este andamiaje de reflexiones a partir del modelo constructivista y de las competencias interculturales.

# Tema destacado 2024

## **Accesibilidad, comunicación y planificación docente**

**María José Bagnato, Profesora, Facultad de Psicología, Universidad de la República, Montevideo, Uruguay**

**Maria Lilián González Camaño, Docente Asistente, Servicio Central de Extensión y Actividades en el Medio y Núcleo Interdisciplinario Comunicación y Accesibilidad, Universidad de la República, Montevideo, Uruguay**

**Leticia Lorier, Profesora Adjunta, Facultad de Información y Comunicación, Universidad de la República, Montevideo, Uruguay**

**Eugenia Barbosa, Docente, Facultad de Psicología Universidad de la República, San José, Uruguay**

Se trata de una propuesta de desarrollo pedagógico desarrollado en 2023 y 2024 para docentes universitarios. Se lleva adelante desde la Facultad de Psicología y el Núcleo Interdisciplinario Comunicación y Accesibilidad de la Universidad de la República (udelar) Uruguay. Los objetivos específicos son: (a) promover un marco teórico-conceptual común sobre educación inclusiva; (b) brindar herramientas para construir planificaciones docentes desde la accesibilidad y (c) dinamizar procesos de educación inclusiva desde un enfoque interdisciplinario. Se ofrecen en modalidad virtual y sincrónica, con una duración de 30hs. Utiliza una metodología mixta expositiva y colaborativa a través de tareas subgrupales. Se prioriza el trabajo práctico en torno a guías y recursos metodológicos para acercar herramientas y metodologías que contribuyan a la construcción de aulas inclusivas. Las herramientas que se trabajan permiten la planificación de cursos tanto virtuales como presenciales. La evaluación para la aprobación del curso es continua mediante tareas individuales semanales y trabajo final. Además del cumplimiento de los objetivos del curso, se obtienen como resultados, la creación de un glosario de recursos existentes en la Universidad; así como la identificación por parte de los docentes asistentes, de fortalezas y debilidades para la transformación de prácticas inclusivas en el contexto actual. El curso se financia a través de la convocatoria a fondos concursables de la Comisión Sectorial de Enseñanza de la Udelar. Es de inscripción voluntaria. Se han pre-inscripto al curso más de 400 interesados, lo que demuestra el interés que despierta en los docentes universitarios la educación inclusiva.

# Tema destacado 2024

## **Desarrollo de experiencias interactivas multimedia para prevenir el acoso y el ciberacoso escolar**

**Adriana De La Rosa, Profesora, Universidad Autónoma de Occidente, Valle del Cauca, Colombia**

En este trabajo se presenta la investigación en la que se diseña e implementa una experiencia interactiva multimedia que busca promover el aprendizaje socio emocional (SEL), con el fin de prevenir el acoso escolar y el ciberacoso, en un grupo de séptimo de secundaria, en una institución educativa oficial en la ciudad de Cali, suroccidente de Colombia. El grupo de investigadores es un equipo interdisciplinario conformado por investigadores en educación e ingenieros de sistemas, multimedia y electrónicos. Este estudio inició en febrero del 2023 y se desarrolla hasta el mes de junio del presente año. La experiencia interactiva multimedia está compuesta de dos historias, la primera busca promover la empatía y la segunda, trata sobre el ciberacoso y busca favorecer la comunicación y el manejo de relaciones, de acuerdo con las habilidades socio emocionales. Se expone el proceso llevado a cabo con profesores y estudiantes para diseñar la experiencia interactiva.

# Tema destacado 2024

## **Evaluación de sesgos en presentaciones generadas por la Inteligencia Artificial Generativa: Una propuesta destinada a la formación inicial de docentes y educadores**

**Alejandra Alexia Díaz Pino, Profesora, CES Don Bosco, Madrid, España**

**María Pacheco, Coordinadora Grado de Maestro de Educación Infantil, CES Don Bosco, Madrid, España**

**Amaia García Aparicio, Profesora, Educación Física, CES Don Bosco, Madrid, España**

**Lorena Silva Balaguera, Profesora, Psicología, CES DON BOSCO, España**

El aumento de la población digitalmente competente es condición imprescindible para fomentar un desarrollo social inclusivo y sostenible, por lo que la Universidad debe urgentemente priorizar la capacitación que lo permita, especialmente en las facultades de educación, ya que sus graduados serán los encargados de formar a estudiantes de distintas etapas y contextos. Para ello, el Marco Europeo para la Competencia Digital de los Educadores DigCompEdu propone promover el desarrollo de 22 competencias básicas, entre las que destacan las habilidades necesarias para utilizar, generar y compartir los recursos digitales de forma eficiente y responsable. Aunque la Inteligencia Artificial Generativa (IAG) puede resultar especialmente útil en el desarrollo de estas competencias, su uso eficaz requiere que el docente analice críticamente los recursos que proporciona. De forma concreta, es fundamental abordar la falta de representatividad y representación estereotipada que se deriva de sesgos algorítmicos culturales, de género, discapacidad o relacionados con la edad, entre otros. Consecuentemente, parece relevante realizar experiencias piloto, como la presente, cuyo objetivo sea que el futuro docente identifique y realice un análisis crítico de sesgos algorítmicos producidos por la IAG. La muestra está conformada por 38 estudiantes que cursan Doble Grado de Educación Infantil y Pedagogía, Doble Grado de Educación Primaria y Pedagogía y Grado de Pedagogía en un centro adscrito a la Universidad Complutense de Madrid. Los resultados muestran una baja comprensión entre los estudiantes respecto a la naturaleza, características y repercusiones de los sesgos algorítmicos en el desarrollo de una educación de calidad.

# Tema destacado 2024

## **Educación personalizada a través de la música y las historias para el aprendizaje significativo en estudiantes de ciencias de la salud: Una propuesta de educación intercultural para la salud**

**Carlos Duvan Paez Mora, Docente de Maestría en Salud Pública, Bogotá, Fundación Universitaria del Área Andina, Colombia**

Las enfermedades cardiovasculares son la primera causa de muerte en el mundo. Esto supone un reto para la prevención y promoción de la salud. Educar sobre temas cardiovasculares complejos como el infarto es un desafío para los profesores de ciencias de la salud. Se buscaba un método atractivo para los estudiantes, utilizando herramientas tecnológicas y adaptando los contenidos a sus gustos. Tras procesos de dialogo con los estudiantes, se crearon dos herramientas educativas con música y video, utilizando historias a través de un personaje para transmitir los conocimientos. Se aplicaron en estudiantes de terapia respiratoria y terapia ocupacional, adaptando las herramientas en tipo de música, lenguaje y sonidos a sus contextos culturales. Los estudiantes describieron la herramienta como innovadora, emotiva y llamativa. Los resultados mostraron una mejor motivación por aprender de los temas, un lenguaje más sencillo para asociarlo con sus conocimientos previos y la posibilidad de repasar el contenido gracias a su disponibilidad en plataformas como YouTube. Conclusiones: Este método innovador de enseñanza, que combina herramientas tecnológicas, historias y música, tiene un gran potencial para la educación en ciencias de la salud. La adaptación intercultural de los contenidos permite una mayor equidad y reconocimiento de las diferentes culturas. Se sugieren más investigaciones para describir si es un método descrito anteriormente o es uno emergente que personaliza la educación culturalmente a los grupos a través de historias y música para mejorar el aprendizaje.

# Tema destacado 2024

## **Pedagogías de la Tierra: La experiencia de la formación online de Comunidad ABEJAR (2012-2024)**

**Luisina Egidi, Estudiante, Máster online Universitario en Español como Lengua Extranjera, Universidad Nebrija, Madrid, España**

Compartimos nuestros recorridos en la formación online en Pedagogías de la Tierra, una experiencia didáctico-epistemológica y artístico-cultural de la Comunidad de aprendizaje en red ABEJAR. La metodología de este estudio es cualitativa, descriptiva, longitudinal contando con registros etnográficos, escritos y audiovisuales entre 2012 y 2024. Este texto se inscribe en las llamadas geopoéticas, la búsqueda de una narrativa distinta y propia en torno a los relatos que recuperan saberes, sentires y prácticas de la Tierra/naturaleza/territorios. Desde los transfeminismos en territorio y sus propuestas de trabajo en ámbitos académicos, hablamos desde una voz plural y diversa que involucra a la red de participantes, en su mayoría mujeres, perteneciente al ala latinoamericana de ABEJAR. Confirmamos año tras año, la importancia de esta formación que toma el legado de la tradición latinoamericana que vincula la educación popular con la sostenibilidad del territorio y de la trama de la vida para una cultura de paz, destacando la potencia teórico-metodológica de la pedagogía. Nuestros encuentros son online, interculturales, vivenciales, con metodologías de la educación popular freireana y una impronta particular de humanización de las tecnologías. Recibimos apoyo de la Sec DDHH y Género, Fac Psicología (Univ Nac Rosario/Argentina), formamos parte de la red de educación crítica alternativa REEVO y somos una organización en vínculo con CLACSO (Consejo Latinoamericano de Ciencias Sociales).

## **Inclusión, interculturalidad y glocalización: Retos de la educación en Colombia**

**José De Jesús Herrera Ospina, Docente Interno, Facultad de Ciencias y Educación, Politécnico Colombiano Jaime Isaza Cadavid, Antioquia, Colombia**

Colombia es un país con graves problemas de seguridad, violencia, narcotráfico, migración y desplazamiento forzado debido al conflicto interno que se ha prolongado a lo largo de los años, pese a los diálogos y acuerdos de Paz que han logrado los últimos gobiernos con los grupos insurgentes. Esto revela la necesidad de la educación en valores que lleven a la inclusión, la interculturalidad, la glocalización para ir afianzando un mayor grado de conocimiento pertinente y apropiado que permita comprender tanto el contexto social, político y cultural. En esta ponencia se trata de realizar un diagnóstico de la realidad colombiana con el fin de sugerir alternativas de cambio para lograr una mejor educación en valores.

# Tema destacado 2024

## **Discursos del profesorado de Educación Plástica, Visual y Audiovisual de Educación Básica sobre la diversidad cultural en Cataluña**

**Meritxell Limonero, Student, Estudiante de doctorado, Universitat Autònoma de Barcelona, Barcelona, España**

Se presenta una investigación sobre las metodologías y el concepto de diversidad cultural y la interculturalidad de referentes que presentan los docentes de la asignatura de Educación Plástica, Visual y Audiovisual en Catalunya a través del análisis de sus prácticas docentes y de su formación como profesionales de la educación artística. Se hace también un estudio en referencia al trato de la diversidad cultural de referentes en el currículum catalán de educación artística.

## **La multimodalidad ya aparece en el currículum español: ¿Cómo se trata la Multimodalidad en el currículum español de enseñanzas Infantil y Primaria?**

**Zósimo López, Lecturer, Applied Didactics, Language and Literature Didactics, University of Santiago de Compostela, A Coruña, España**

España es un país de la Unión Europea cuyo sistema educativo está regido por una ley de educación del año 2020 que, a su vez, modifica otra ley del año 2006. A partir de esta ley, se configuran los diferentes currículums de cada región. Los nuevos currículums en el sistema educativo español, con entrada en vigor en septiembre de 2022, han introducido algunas novedades en las diferentes etapas educativas. Una de estas novedades, y que afecta explícitamente a la educación no universitaria, es la introducción de la multimodalidad. La multimodalidad es una disciplina o enfoque metodológico que bebe de la semiótica social y que se preocupa del significado que se crea a través de las diferentes configuraciones y combinaciones de modos de comunicación. El objetivo de la presente comunicación es analizar el tratamiento que se le da a la multimodalidad en los currículums de las etapas educativas de Educación Infantil y Primaria dentro del territorio español. Este análisis se realiza con la finalidad de ofrecer una serie de acciones básicas para imbricar este enfoque metodológico, que es la multimodalidad, en diferentes materias, especialmente, en las relacionadas con la didáctica de la lengua y la literatura, teniendo en cuenta que la multimodalidad todavía no está integrada plenamente en los planes de estudio que constituyen la formación de los actuales docentes en las universidades españolas.

# Tema destacado 2024

## **La transformación de la sala de clases: Un viaje hacia el futuro de la educación**

**Ivelisse Mercado, Profesora, Educación Continua, NUC University, Puerto Rico**

En un mundo donde la educación está en constante cambio, es fundamental que los educadores adoptemos nuevas estrategias y tecnologías para crear salones de clases dinámicos y preparados para los retos. En esta conferencia exploraremos cómo la educación está evolucionando y cómo la tecnología, la pedagogía innovadora y la adaptabilidad están transformando las salas de clases. Desde el aprendizaje personalizado hasta el uso de herramientas digitales, exploraremos los desafíos y oportunidades que enfrenta la educación en el siglo XXI. Se presenta un modelo de educación inclusiva centrada en el estudiante, con ejemplos concretos de integración y herramientas útiles que sirve a los educadores para tomar decisiones y planes de acción desde la administración de una institución educativa, escuela hasta la sala de clases. El objetivo es transformar la forma en cómo se enseña. Enfocarse en las nuevas tendencias educativas, fundamentados en base científica y estudio internacional, para implementar cambios exitosos en los salones de clases que se traduzcan en efectividad en el rendimiento académico. Considera algunos desafíos específicos que enfrentan los educadores y las instituciones educativas en contextos globales, como barreras lingüísticas, diferencias culturales en estilos de aprendizaje y acceso desigual a la tecnología. También se proveerán datos estadísticos sobre la creciente diversidad cultural en las aulas, la rápida expansión de la tecnología educativa a nivel mundial y la necesidad cada vez mayor de competencias interculturales y alfabetización digital en un mundo globalizado.

## **Estudio comparativo entre los sistemas educativos Intercultural e Intercultural Bilingüe en el Ecuador**

**José Patricio Narváez, Docente investigador, Docencia, Universidad Nacional de Educación, Azuay, Ecuador**

Como se menciona en la introducción de la presente investigación, en el Ecuador subyacen dos modelos de educación, uno de la educación intercultural y el otro de la educación intercultural bilingüe, por lo que es necesario el estudio de estos modelos, con la finalidad de buscar sus fortalezas, a través de un estudio comparativo que permita conocerlas. Los dos sistemas responden a la realidad del Ecuador, un país pluricultural en donde perviven 14 nacionalidades, y a pesar de ser minoría poblacional, es parte de la obligatoria visión multicultural. Este primer producto de un proyecto mucho más ambicioso que es la comparación de la aplicación de la asignatura de Educación Cultural y Artística en las aulas, permite sentar las bases conceptuales para comprender el espacio del aula y la acción de docentes y estudiantes y en última instancia los aprendizajes que se desarrollan en los dos sistemas.

# Tema destacado 2024

## **La competencia intercultural: Clave para la integración lingüística, social y cultural de inmigrantes de origen ruso en España**

**Dimitrinka G. Níkleva, Profesora, Didáctica de la Lengua y la Literatura, Universidad de Granada, Granada, España**

**Tatjana Portnova, Profesora, Filología Eslava, Universidad de Granada, España**

Los enfoques de base comunicativa vienen destacando desde sus inicios la importancia de la cultura en la enseñanza-aprendizaje de la lengua y no cabe ninguna duda de que el uso de la lengua requiere una competencia sociocultural, de que la adecuación no es solo lingüística, sino también sociopragmática y cultural. Se propone una clasificación de contenidos, necesarios para la adquisición de esta competencia. Se dedica un amplio apartado a los códigos semióticos no verbales en el marco de la competencia intercultural.

## **Las voces de los estudiantes sobre la gestión de la privacidad y la responsabilización de los datos y la información desde las escuela públicas de Cartagena (Colombia)**

**Marelbi Olmos, Profesora Asistente, Programa Comunicación Social, Universidad Tecnológica de Bolívar, Bolívar, Colombia**

Esta investigación cualitativa utilizó el enfoque Investigación-Acción-Participación (RAP) desarrollado en tres instituciones de educación pública (IE) de Cartagena (Colombia) durante 2023. Se centró en la importancia de la gestión de la privacidad en el uso de las redes sociales digitales por parte de los estudiantes de grados 6 y 7 de secundaria. Así, 102 estudiantes de IE públicas, ubicadas en contextos de alto riesgo social, recibieron talleres de educación mediática, informacional y digital, para conocer e identificar cómo proteger sus datos personales y cómo estos pueden ser obtenidos y filtrados a través de la web y sobre la importancia de mantener la privacidad de la información que comparten para evitar ser objetos de diferentes delitos informáticos como el sexting, el grooming, el fishing o el cyberbullying. Asimismo, la investigación abordó la responsabilidad del uso de las redes sociales digitales para difundir la información que reciben en forma de noticias, por ello la segunda parte de esta consistió en identificar las llamadas fake news y cómo gestionar este tipo de desinformación. Para ello, aprendieron a manejar las aplicaciones de verificación de datos, adquirieron habilidades para el acceso, uso y evaluación de información y medios de comunicación, con las cuales pudieron corroborar la veracidad o falsedad en las noticias, con el objetivo de usar responsablemente la información entregada y difundida, así como aprender sobre el manejo de sus datos y la difusión de información personal, para hacer de los estudiantes ciudadanos responsables y reflexivos en sus procesos de interacción digital y mediática.

# Tema destacado 2024

## **Propuesta metodológica para la evaluación de resultados de aprendizaje: Caso Facultad de Ingeniería y Arquitectura Universidad Colegio Mayor de Cundinamarca**

**Martha Cecilia Torres López, Decana, Facultad de Ingeniería y Arquitectura, Universidad Colegio Mayor de Cundinamarca, Colombia**

En la aplicación de la normativa nacional e institucional referida a la evaluación de los aprendizajes, la experiencia del equipo de evaluación curricular en la Facultad de Ingeniería y Arquitectura derivó en el análisis de las realidades de la generación actual frente a las competencias que hacen parte de su saber, y su integración con lo deseable en su formación profesional. En este sentido, se realiza un trabajo de experimentación y análisis frente a dos realidades: 1. Las competencias digitales en la Educación Superior; 2. Los resultados de aprendizaje en el proceso de formación desde el deseo de estudiar hasta el logro de una formación en Educación Superior. Bajo estos análisis se define una metodología de evaluación que contemple su integración y permita al estudiante formarse en la realidad de unas etapas y momentos de evaluación concretos, que potencialicen los principios y acuerdos institucionales y que redunden en la formación integral e inclusiva.

## **Principales desafíos que enfrentan las mujeres en la integración a una carrera STEM: Informática Empresarial en la Universidad de Costa Rica, Sede del Caribe**

**Luz Mariana Rivas Villatoro, Coordinadora de Carrera de Informática Empresarial, Limón, Universidad de Costa Rica, Limón, Costa Rica**

Se pretende mostrar la percepción de la población estudiada sobre la información que se brinda con relación a las carreras tecnológicas y su nivel de inclusividad, así como el comportamiento del ambiente sociocultural en relación con las etiquetas sociales en la provincia de Limón (Costa Rica) respecto a la relación entre mujer y tecnología. Así mismo, se acomete indagar en la impresión del grupo estudiado acerca de la cantidad de hombres en proporción con la de mujeres en la carrera de informática empresarial a lo largo de su vida universitaria, permitiendo comprender los efectos del entorno regional y variables sociales, culturales, laborales y de equidad, que influyen en el desenvolvimiento ininterrumpido, tanto de la estudiante como de la profesional, y su correlación con la condición de género, buscando disminuir la brecha de desigualdad en la participación de mujeres en la carrera de informática empresarial en la sede del Caribe de la Universidad de Costa Rica.

# Alfabetización y aprendizaje de idiomas

## Revitalización de lenguas indígenas en Costa Rica: En miras de un currículum intercultural

**Isabel Cristina Bolaños, Profesora Investigadora, Universidad Nacional, Costa Rica, Heredia, Costa Rica**

**Maria Chinchilla, Profesora, Universidad Nacional, San José, Costa Rica**

Desde el 2007, el Programa de Lingüística Centroamericana, PROLINCA, de la Universidad Nacional, Costa Rica, se ha dedicado al rescate de la diversidad lingüística centroamericana, en tanto patrimonio y fuente de identidad cultural de la región. PROLINCA inició con la documentación a través de gramáticas descriptivas; más adelante, el trabajo evolucionó a la creación de gramáticas pedagógicas (textos didácticos accesibles para los hablantes de las distintas lenguas). Paralelamente, se capacitó a hablantes nativos y medios y maestros en servicio en el uso de sus respectivas lenguas, entre otras estrategias de revitalización lingüística y acciones políticas para el fortalecimiento de las lenguas en desplazamiento. La información recabada, las experiencias vividas y el conocimiento de las realidades de las distintas poblaciones llevan a las investigadoras a proponer la creación de un currículo intercultural para las poblaciones de lenguas en desplazamiento del país. Este trabajo expone las actividades, acciones, medidas e investigaciones a desarrollar en el futuro cercano para fomentar y fortalecer espacios para la discusión, análisis y creación de estrategias comunitarias en pro de un desarrollo educativo de las comunidades enfocado en la interculturalidad. El objetivo es que el proceso de coaprendizaje con y para las autoridades, docentes y hablantes de las poblaciones seleccionadas sirva como fuente de investigación y análisis del contexto educativo nacional actual (formal e informal) en territorios indígenas. Con esto se pretende establecer las bases para elaborar propuestas curriculares interculturales, así como impulsar políticas nacionales para el rescate y fortalecimiento lingüístico y cultural altamente diverso del país.

# Alfabetización y aprendizaje de idiomas

## **Revitalización lingüística y educación intercultural impulsadas a través del cambio de actitudes de la población afrocostarricenses hacia el criollo limonense: Actitudes lingüística, revitalización y educación intercultural**

**Maria Chinchilla, Profesora, Universidad Nacional, San José, Costa Rica  
Isabel Cristina Bolaños, Profesora Investigadora Universidad Nacional, Costa Rica, Heredia, Costa Rica**

Por más de quince años, el Programa de Lingüística Centroamericana (PROLINCA) se ha dedicado al análisis, descripción y documentación de lenguas minoritarias en Costa Rica. Una de esas lenguas es el criollo de base léxica inglesa hablado en la provincia de Limón. Por muchos años, esta lengua fue hablada en la provincia. Sin embargo, a partir de 1949, cuando se le otorgó la nacionalidad costarricense a los afrodescendientes, inició el camino hacia su castellanización y adaptación a la sociedad hispano costarricense, provocando que la lengua criolla cediera ante el uso mayoritario del español. Como resultado, la identidad lingüística de los afrocostarricenses se vio afectada al punto de no querer utilizar el criollo. Consecuentemente, se han generado valoraciones negativas hacia esta lengua entre sus propios hablantes. Las valoraciones, positivas o negativas, hacia una lengua se conocen como actitudes lingüísticas y conocer las actitudes más prominentes es importante para proponer estrategias de revitalización lingüística. Por lo tanto, este estudio pretende evaluar los trabajos realizados acerca de las actitudes lingüísticas hacia el criollo y proporcionar resultados más recientes (provenientes de una tesis de maestría que muestra actitudes lingüísticas positivas hacia el criollo por parte de dos grupos de jueces evaluadores afrocostarricenses durante la aplicación de la técnica de pares ocultos o matched-guise), con el fin de establecer un panorama más actualizado y, así presentar futuras acciones de revitalización y educación enfocada en la interculturalidad a través de un proceso de co-aprendizaje que permita la aceptación, la enseñanza y utilización de la lengua criolla.

# Alfabetización y aprendizaje de idiomas

## **La adquisición de las representaciones ortográficas en escolares hispanoparlantes: Procesos implicados**

**Ariel Cuadro, Profesor Titular, Neurociencia y Aprendizaje, Universidad Católica del Uruguay, Montevideo, Uruguay**  
**Ana Laura Palombo, Profesora Asociada, Departamento de Neurociencia y Aprendizaje, Universidad Católica del Uruguay, Montevideo, Uruguay**

El acto de escribir demanda la activación de procesos cognitivos que intervienen en forma coordinada y jerarquizada según se trate de tareas de producción vinculadas a la generación de las ideas, o de transcripción relacionadas con la ortografía y caligrafía. En particular la ortografía se vincula con la correcta escritura de las palabras, entendiendo que un buen dominio ortográfico mejora la escritura en general, al igual que la lectura. Este estudio se propone analizar la incidencia de los procesos perceptivo-motrices con relación a otros procesos cognitivos implicados en el desempeño ortográfico para valorar su importancia en el aprendizaje de la ortografía del español, cuando se han controlado las variables contextuales y ha habido una instrucción explícita. A partir de una muestra de 96 escolares de tercero a sexto grado de educación primaria, se seleccionaron alumnos con buen y bajo desempeño en ortografía y se evaluaron en nivel intelectual, velocidad de nominación, vocabulario, memoria de trabajo visual, memoria de trabajo auditiva e integración perceptivo motriz. Los resultados muestran que la integración perceptivo-motriz y la memoria de trabajo auditiva diferencian a los escolares con buen rendimiento en ortografía y predicen mejor el desempeño en ortografía. La relación entre la memoria de trabajo auditiva y la integración perceptivo motriz se establecería al incorporar la palabra al léxico del sujeto. Los resultados tienen implicaciones psicopedagógicas para la enseñanza de la ortografía a partir de la escritura a mano, cuando se discute su uso con relación a las tecnologías digitales.

# Alfabetización y aprendizaje de idiomas

## Prácticas docentes de mediación lectora de profesores de excelencia en distintas asignaturas: ¿Cómo son sus interacciones discursivas?

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**María Constanza Errázuriz, Profesor, Facultad de Educación, Universidad de los Andes, Araucanía, Chile**

**Andrea Cocio Seguel, Investigadora, Educación, Universidad San Sebastián, Bío-Bío, Chile Omar Davison**

Las prácticas docentes de mediación lectora en Chile, según la evidencia disponible, son predominantemente reproductivas, presentan un limitado desafío cognitivo y un dominio del discurso docente. Pese a que existe consenso respecto de la relevancia del diálogo para desarrollar aprendizajes profundos y mediar los procesos de lectura. Asimismo, la mayoría de los docentes presentan concepciones generalistas sobre la lectura. A partir de esto, el objetivo de la investigación fue caracterizar las interacciones discursivas de las prácticas pedagógicas de mediación lectora en diversas asignaturas de profesores de excelencia de educación primaria, para así aprender de ellas y contribuir a la mejora de otras prácticas docentes. Respecto de la metodología, el diseño fue un estudio de casos múltiples descriptivo y cualitativo y los participantes fueron 9 docentes de 6 escuelas públicas de La Araucanía, Chile, la región con los menores índices económicos del país. De este modo, videograbamos y analizamos 27 de sus clases, según sus ciclos y tipos de interacciones: dialógicas, IRF (Iniciación-Respuesta-Feedback) o IRE (Iniciación-Respuesta-Evaluación). Con respecto al procedimiento de análisis, realizamos una codificación inicial, una central y una final y una calibración del análisis de todos los miembros del equipo. En relación con los resultados, identificamos, en primer lugar, que si bien existe un predominio de ciclos IRE, las interacciones son significativamente más dialógicas en comparación con las evidencias previas, por lo que se vislumbra un avance hacia la construcción de patrones discursivos más dialógicos. Por último, las interacciones son más dialógicas en Lengua y Ciencias Sociales.

# Alfabetización y aprendizaje de idiomas

## **Innovación en la enseñanza de la literatura: Aprendizaje Basado en Proyectos y su impacto en estudiantes del profesorado de inglés en Uruguay**

**Virginia Frade, Docente, Departamento de Innovación y Emprendimiento, Universidad Tecnológica del Uruguay (UTEC), Montevideo, Uruguay**

Este estudio investiga la implementación del Aprendizaje Basado en Proyectos (ABP) en la asignatura de Literatura de habla inglesa en el Profesorado de inglés en Uruguay. El ABP se aplicó en los cuatro cursos obligatorios, utilizando diferentes obras literarias como base para cada proyecto anual. Se alentó a los estudiantes a integrar herramientas de inteligencia artificial (IA) para mejorar su aprendizaje y creatividad. Se empleó un enfoque de métodos mixtos para evaluar la efectividad del ABP, recolectando datos cuantitativos a través de un cuestionario estructurado y datos cualitativos mediante preguntas abiertas. Los resultados mostraron un alto compromiso estudiantil y una fuerte percepción de la aplicabilidad práctica del ABP, mejorando habilidades colaborativas y capacidad para aplicar conceptos literarios de manera innovadora. La integración de herramientas de IA enriqueció la experiencia de aprendizaje y ofreció nuevas vías para el análisis. Este estudio discute el diseño, implementación y resultados de estos proyectos, resaltando el potencial del ABP para enriquecer la pedagogía literaria y preparar mejor a los futuros educadores para sus carreras profesionales.

# Alfabetización y aprendizaje de idiomas

## La alfabetización multimodal como práctica social: Experiencias y corporeizaciones del profesorado en formación

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Los Nuevos Estudios de la Literacidad plantean una revisión del concepto de alfabetización entendida ahora como práctica social, lo que propicia nuevas formas de abordarla con el profesorado en formación. Desde esta perspectiva, nuestra propuesta se enmarca en los proyectos de innovación docente "Mejora de la reflexión crítica en la formación inicial de maestros en Educación Infantil y Primaria. Diseño, implementación y evaluación de secuencias didácticas basadas en una pedagogía especulativa" y "Construyendo procesos de innovación universitaria con el método ECO". La iniciativa surge para responder a las necesidades del estudiante maestro que necesita adquirir las competencias necesarias para trabajar los contenidos curriculares del área de Lengua Castellana y Literatura que fija la nueva ley educativa española (LOMLOE) en la Educación Primaria, entre los cuales destaca la alfabetización multimodal como parte de la Competencia en Comunicación Lingüística. Recopilamos evidencias del proceso alfabetizador del estudiantado a través de sus diarios de aprendizaje, creados de forma cooperativa a través de la plataforma de enseñanza virtual. En concreto, ponemos el foco en distintas prácticas alfabetizadoras significativas, como el uso de Padlet, la realización de vídeos, la lectura de artículos científicos y proyectos elaborados por el estudiantado en cursos anteriores, la creación de artefactos (prototipos), las presentaciones parciales de los proyectos y la realización de talleres en el aula. El análisis de los materiales generados por los docentes en formación revela una concepción de la alfabetización como construcción de significados más allá de lo puramente lingüístico que engloba también la multimodalidad y la multisensorialidad.

# Alfabetización y aprendizaje de idiomas

## Análisis bibliométrico y temático sobre la competencia plurilingüe en la enseñanza de lenguas

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La enseñanza multilingüe tiene cada vez más presencia en nuestro sistema educativo. La diversidad de la sociedad actual motiva a los países a promover iniciativas educativas para formar a ciudadanos plurilingües. Este estudio, auspiciado por el proyecto LEyLA\*, tiene como objetivo analizar la literatura científica sobre la competencia plurilingüe y su relación con el desempeño docente, publicada en las bases de datos Web of Science y Scopus, en el periodo 2010-2023. Se analizaron 39 publicaciones que muestran un interés científico creciente sobre el tema, pero insuficiente. Destacan España y China como países de procedencia de estos estudios, realizados en lengua inglesa. Las áreas de investigación predominantes son la Educación y la Lingüística. Los trabajos más citados son los de Piccardo, Portoles y Martí, y Phillipson. Respecto a los colectivos estudiados, la atención recae sobre la competencia plurilingüe del alumnado, antes que la de los docentes, pero resulta muy escasa si se trata de la enseñanza en edades tempranas, objetivo de LEyLA. Entre los temas abordados encontramos el desarrollo de esta competencia en la enseñanza de lenguas extranjeras, su valoración y resultados; las creencias de los docentes al respecto y la necesidad de formación de futuros docentes para emprender una educación plurilingüe. Esta publicación es parte del proyecto de I+D+i LEyLA (Ref. PID2021-123055NB-I00), financiado por MCIN/AEI/10.13039/501100011033 y por "FEDER Una manera de hacer Europa".

# Alfabetización y aprendizaje de idiomas

## Alfabetización inicial - Precursores básicos: Estrategias lingüísticas-culturales desde el contexto caribe Colombiano

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La alfabetización inicial representa un hito crucial en el desarrollo educativo de los niños, y su efectividad depende en gran medida de la adecuación de las estrategias pedagógicas al contexto lingüístico y cultural del entorno. Este estudio se enfoca en el diseño y aplicación de estrategias de alfabetización inicial basadas en los precursores básicos, utilizando las peculiaridades lingüísticas del habla caribeña colombiana, específicamente en la región de Córdoba. A través de una revisión exhaustiva de los sonidos, palabras, fonemas y grafemas comunes en la idiosincrasia del Caribe colombiano, se desarrollaron materiales de lectura-escritura destinados a promover la alfabetización inicial y aumentar la motivación y el compromiso de los niños con la lectura. Inspirados en el marco epistemológico de Catherine Snow, quien aboga por enfoques que fomenten la decodificación, la conciencia fonológica y la comprensión del significado de las palabras, estas estrategias buscan no solo enseñar habilidades de lecto-escritura, sino también cultivar un sentido de identidad y pertenencia cultural en los estudiantes caribeños. Además, se busca aumentar la eficacia de la comprensión lectora al proporcionar una contextualización cercana que favorezca la inferencia y estimule el ejercicio de la metacognición, permitiendo una mejor comprensión de textos relacionados directamente con el entorno y los fonemas que los niños escuchan desde los primeros años de vida. Este estudio ofrece una perspectiva innovadora y prometedora sobre cómo abordar la alfabetización inicial de manera más efectiva, reconociendo y valorando la diversidad lingüística y cultural de la región del Caribe colombiano.

## Educación superior

### **Integración curricular: Significados de los docentes sobre su experiencia en ciencias básicas en dos carreras de Enfermería (Santiago, Chile)**

**Ceci Aldunate, Estudiante, Universidad de Chile, Región Metropolitana de Santiago, Chile**

Se analizan los significados de los docentes sobre la experiencia en la integración curricular en ciencias básicas en dos carreras de Enfermería en Chile. Pregunta de investigación: ¿Cuáles son los significados de los docentes sobre la experiencia en el proceso de integración curricular en dos carreras de Enfermería en Santiago de Chile? El objetivo general es describir los significados de los docentes sobre la experiencia en el proceso de integración curricular de ciencias básicas en la carrera de Enfermería. Se realiza una investigación de tipo inductiva, cualitativa, fenomenológica, entre los años 2019-2022. La población en estudio son académicos que participan en el proceso de integración en ciencias básicas. Para la recolección de información se utiliza como instrumento la entrevista y como análisis estadístico Atlas.ti. Se consideran los resguardos éticos y la confidencialidad del estudio. Se mencionan como factores facilitadores la articulación y conectores que existe entre las distintas ciencias, el asesoramiento de los comités curriculares a los profesores que realizan esta integración. Como factores obstaculizadores están la falta de información y escaso tiempo de los docentes para realizar la integración. Como estrategia para revertir los factores obstaculizadores se menciona la participación activa de los profesores durante el proceso de integración curricular. En esta investigación los docentes mencionan factores significativos en una integración en Ciencias Básicas: Capacitación y acompañamiento de expertos en el proceso, motivación profesional y poseer habilidades para trabajar en equipo.

## Educación superior

### **STEM en Educación Superior: El impacto de los estereotipos de género sobre el trabajo colaborativo**

**Francisca Beroíza-Valenzuela, Doctorado en Educación, Agencia Nacional de Investigación y Desarrollo de Chile, Chile**

Este estudio buscó investigar los efectos de los estereotipos de género en el trabajo colaborativo en ciencias, tecnología, ingeniería y matemáticas (STEM) en educación superior. La pregunta de investigación abordada fue: ¿Cómo impactan los estereotipos de género en el trabajo colaborativo entre estudiantes hombres y mujeres que asisten a universidades públicas y privadas en disciplinas STEM en Chile? La literatura ha destacado los estereotipos de género como un conjunto compartido de creencias sobre los atributos de los miembros de una categoría social. Estos estereotipos de agencia (asociados con los hombres) y rasgos comunes (asociados con las mujeres) se internalizan tempranamente y afectan la identidad, los intereses, la autoeficacia y la motivación en entornos de aprendizaje formales e informales. Por lo tanto, la brecha de género en STEM plantea desafíos significativos para las mujeres, ya que se ven obstaculizadas por concepciones erróneas sobre sus habilidades creativas, lo que limita su acceso a esas carreras. Los estereotipos describen y prescriben que los individuos se adapten constantemente a las normas atribuidas a ellos por la sociedad, lo que conduce a interacciones grupales que ya sea fomentan o inhiben el trabajo colaborativo en entornos sesgados. Este estudio emplea un diseño de métodos mixtos. Para lograr esto, el estudio utilizó un instrumento psicométrico que evalúa la inteligencia fluida y una tarea cognitiva. Los resultados revelaron que los estereotipos de género afectan el rendimiento colaborativo. Este estudio destaca la importancia de promover la equidad, la inclusión y la justicia social en los sistemas educativos.

### **Atención, curiosidad y aprendizaje autorregulado en la educación superior como competencias en el siglo XXI: Estudio de casos, buenas prácticas y algunas reflexiones**

**Manuela Catalá Pérez, Profesora, Universidad San Jorge, Zaragoza, España**

La sociedad líquida, dinámica y cambiante del siglo XXI plantea retos ante la forma de aprender en la universidad. En esta contribución se apuesta por el fomento de la atención, la curiosidad y el aprendizaje autorregulado como competencias necesarias para formar alumnos comprometidos y protagonistas de su aprendizaje. Se presentan, también, un par de buenas prácticas, que se han llevado a cabo en el entorno universitario, en las que se han aplicado estas competencias.

## **Competencias específicas del administrador de empresas que se fortalecen desde la simulación gerencial: Un aporte para la formación en contexto**

**José Rodrigo Cálica Barbosa, Docente titular investigador, Departamento del Tolima, Universidad del Tolima, Tolima, Colombia**

Desde los resultados de esta investigación se relacionan de manera argumentativa las competencias específicas de los administradores de empresas que se fortalecen mediante el uso de la simulación gerencial como estrategia educativa. La fuente de información primaria corresponde al desarrolló del trabajo de campo a través de la aplicación de instrumentos de recolección de información a estudiantes y egresados de los programas de Administración de Empresas de la ciudad de Ibagué, entre los años 2020 y 2022. Se desarrolló una investigación aplicada, de tipo cuantitativo. Por la forma de llegar a las competencias específicas que se fortalecen desde la simulación, el método de investigación ha correspondido al método deductivo, pues las conclusiones son una consecuencia necesaria de las premisas existentes en torno a los procesos de simulación y a la toma de decisiones mediante modernas estrategias pedagógicas. Se describen y correlacionan las competencias específicas del administrador de empresas que se fortalecen desde los procesos de simulación gerencial, gracias a la incorporación de acciones estratégicas propias a las áreas funcionales de las empresas, para que el perfil de egreso de los estudiantes esté alineado con las exigencias y tendencias de la gestión gerencial moderna. La importancia del estudio radica en el aporte a un proceso de formación en contexto, de tal manera que rompa con el esquema tradicional de la enseñanza o formación desde el proceso de repetición o formación para la reproducción y no para la producción de conocimiento.

# Educación superior

## **Iniciarse en la enseñanza híbrida: Dificultades y oportunidades para la enseñanza universitaria**

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En 2022 la Facultad de Ciencias Económicas y de Administración (FCEA) de la Universidad de la República incorporó las clases híbridas como nueva modalidad de enseñanza. En estas concurren simultáneamente estudiantes presenciales y remotos mediante Zoom. Si bien quienes están a cargo de las clases cuentan con experiencia en la enseñanza, se trata de docentes principiantes en esta nueva modalidad. Con la finalidad de establecer las principales problemáticas y preocupaciones de los docentes de la FCEA que se encuentran transitando su primera experiencia en la modalidad se está implementando un proyecto de investigación el cual, por su carácter exploratorio, cuenta con un diseño de investigación flexible. Se optó por el método mixto, donde se han aplicado diversas técnicas de recolección de información: observaciones no participantes de clases híbridas, entrevistas focalizadas a responsables de cursos y encuestas a docentes que han participado del dictado de dichas clases. Los resultados del análisis preliminar de las observaciones de clase y de la encuesta muestran que la metodología de enseñanza predominante es la expositiva, con escasas experiencias de interacción entre estudiantes remotos y presenciales. Las principales dificultades técnicas experimentadas por los equipos docentes en relación con el hardware disponible se relacionan con los micrófonos y, menos frecuente, con las cámaras. Con el software las dificultades identificadas fueron mínimas. Las clases continuaron, con modificaciones de la planificación o no, por lo cual estas dificultades fueron resueltas. En la siguiente etapa se analizarán las entrevistas focalizadas y se realizará una triangulación analítica de la información recolectada.

# Educación superior

## Aulas inclusivas a través de proyectos universitarios de tecnología: Aprendizaje a partir del servicio

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La sociedad en la que vivimos exige nuevos perfiles docentes digitales con habilidades para la atención a la diversidad en el aula y capacidades para la incorporación de tecnologías accesibles, materiales adaptados a las necesidades del alumnado o nuevas metodologías docentes. En esta ponencia describiremos dos experiencias universitarias realizadas durante este curso académico 2023/2024, orientadas a la formación del futuro profesorado de tecnología en las aulas de educación secundaria a través de la realización de proyectos tecnológicos dirigidos a personas con diversidad funcional y/o cognitiva. Estas experiencias incorporan la metodología de aprender a través del servicio a la comunidad, lo que se conoce como aprendizaje y servicio. En la primera experiencia, estudiantes de máster de profesorado en tecnología desarrollan proyectos para estos colectivos (utilizando para ello placas microcontroladoras), que culminan con la realización de dos ferias de tecnología a las que asisten personas con diversidad de entidades del entorno. En la segunda experiencia, docentes universitarios tutorizan proyectos de tecnología inclusiva, a modo de pequeños retos tecnológicos, realizados por estudiantado de secundaria y dirigidos también a personas usuarias con diversidad, que colaboraron a lo largo de todo el proceso de desarrollo del proyecto. Los resultados de ambas muestran una elevada participación y satisfacción de todas las personas participantes, favoreciendo el aprendizaje a partir del conocimiento del entorno social, las vocaciones tecnológicas y la integración en las aulas. Estas experiencias universitarias fomentan no sólo el aprendizaje de conocimientos curriculares sino también valores sociales y éticos fundamentales en su futuro profesional como docentes.

## Desafíos en la metodología de evaluación de cursos universitarios en la carrera de contaduría pública: Interacción de modelos de aprendizaje tradicional y constructivista

**Ruth González Bordas, Coordinadora y Docente de la Carrera de Contaduría Pública, Limón, Universidad de Costa Rica, Limón, Costa Rica**

Se pretende exponer el resultado de la evaluación en los cursos de la carrera de contaduría pública de la Sede Caribe de la Universidad de Costa Rica, debido a la interacción entre los modelos de aprendizaje tradicional y constructivista adoptado por la Escuela de Administración de Negocios, así como la percepción de la población estudiantil en relación con la calidad de contenidos en el plan de estudios y el cumplimiento de los objetivos planteados. Aunado a ello, se busca determinar la influencia ejercida en el desarrollo personal y profesional, permitiendo comprender el impacto generado producto de la combinación de aprendizajes ante los cambios en la normativa contable y en la política pública que afectan diferentes sectores de la sociedad.

# Educación superior

## **La inteligencia emocional como factor inclusivo diferenciador**

**Pablo González Rico, Lecturer, Business Organization, Universidad San Pablo CEU, Madrid, España**

La Educación Superior es cada vez un espacio más atomizado y en el que los centros deben ofrecer aspectos diferenciadores a los alumnos. Adicionalmente a los óptimos contenidos teóricos transmitidos, toman cada vez más relevancia las formaciones en soft skills que puedan complementar y diferenciar al futuro profesional. En el presente trabajo se muestra la efectividad de cómo unos elevados niveles de inteligencia emocional pueden contribuir a una mayor inclusión de personas con discapacidad intelectual en el mercado profesional y de qué manera afecta esta incorporación a la productividad de la compañía. Se presentan resultados obtenidos mediante cuestionario que permiten apreciar la importancia y necesidad de formación y educación en Inteligencia Emocional.

## **Estudio multivariante sobre las percepciones del aprendizaje autónomo en la educación superior a distancia**

**Fabricio Guevara, Universidad Estatal de Milagro, Guayas, Ecuador**

El presente estudio y análisis plantea la relación entre la autonomía del alumno y el concepto de aprendizaje a distancia, a partir del contexto teórico y uso de instrumentos de recolección de datos interpretados por técnicas estadísticas multivariantes como en análisis de componentes principales con representación gráfica Biplot para debatir las percepciones sobre el modelo de enseñanza impartido. El primer instrumento, Learner Autonomy Questionnaire (LAQ), fue utilizado con el objetivo de medir las intenciones de comportamiento de los alumnos para realizar un aprendizaje autónomo y consta de 12 ítems con escala Likert de 1 (muy diferente a mí) a 5 (muy parecido a mí). El segundo instrumento, Appraisal of Learner Autonomy (ALA), mide la autoeficacia relacionada con el aprendizaje autónomo y consta de 9 ítems, sus respuestas se expresan en forma de escalas que van de 0 (no puede hacerlo en absoluto) a 100 (seguro que puede hacerlo). Los resultados describen las percepciones sobre la valoración de la flexibilidad de los estudiantes y su capacidad de autogestión, las cuales son fundamentales para la educación autónoma. Sin embargo, se ve influenciada el aprendizaje por la falta de interacción con los profesores y compañeros desencadenando la falta de motivación y compromiso. Concluyendo que la educación a distancia debe impartir y cultivar la iniciativa de actitud positiva hacia el aprendizaje autónomo, incitando el desarrollo en el proceso de enseñanza-aprendizaje y, sobre todo, revolucionando la mentalidad para favorecer la autonomía del alumno preparándolos para desafíos futuros en la cultura del aprendizaje continuo.

# Educación superior

## **El profesorado y el uso de tecnologías como proceso de aprendizaje en educación superior**

**Ma. Cruz Lozano Ramírez, Profesora-Investigadora, Turismo y Mercadotecnia, Universidad Autónoma de Baja California, Baja California, México**

El uso de tecnologías digitales fortalece las modalidades de aprendizaje sincrónico/asincrónico apoyados en dispositivos. Esto ha propiciado entornos de aprendizaje virtuales o híbridos que implican una constante actualización del Profesorado para la incorporación de herramientas digitales en los contenidos de las asignaturas de aprendizaje y la transferencia al estudiante como actor principal de su propio conocimiento. Este documento presenta los resultados de un estudio cuyo objetivo identificar el uso de las tecnologías empleadas por el profesorado en educación superior. Los resultados destacan que menos del 50% se mantiene actualizado sobre tendencias en el entorno educativo e identifica el nivel y dinámicas de aprendizaje de los estudiantes y recurrentemente emplea las plataformas de Zoom, Google Classroom, Genially, Blackboard, Canvas, Microsoft Teams, Moodle, Coursera, Google Activate para la impartición de sus clases.

## **De la empatía a la innovación: La formación de nuevos maestros a través del método ECO**

**Rosario Leal, Profesora Ayudante Doctora, Didáctica de la Lengua, la Literatura y Filologías Integradas, Universidad de Sevilla, Sevilla, España**

**Sabina Reyes De Las Casas, Postdoctoral Research Fellow - Juan de la Cierva, University of Las Palmas de Gran Canaria, Las Palmas, España**

En Educación Superior cada vez resulta más necesario abordar las materias curriculares desde una perspectiva que facilite al alumnado el planteamiento de una respuesta personal, creativa y proactiva frente a los retos que asumirán a lo largo de su vida profesional. Además, en consonancia con las misiones de la universidad (investigación, formación y responsabilidad social), es imprescindible que estas respuestas incidan favorablemente en la creación de una sociedad más inclusiva, justa y solidaria. Nuestra propuesta, enmarcada en el proyecto de innovación docente “Construyendo procesos de innovación universitaria con el método ECO”, tiene como objetivo preparar a las nuevas generaciones de maestros para las escuelas del mañana fomentando su identidad profesional y su capacidad emprendedora. En esta comunicación, analizamos el desarrollo de estas competencias en el estudiantado a través de la implementación del método ECO (Explorar, Crear y Ofrecer) en la asignatura “Desarrollo de Habilidades Lingüísticas y su Didáctica” en el Grado de Educación Primaria (Universidad de Sevilla). Los datos recogidos a lo largo del proceso de creación e implementación del proyecto ECO obtienen una significación distinta si los estudiamos a partir de determinadas categorías como la formación de ideas creativas, el desarrollo del pensamiento crítico en una sociedad más justa, la visión emprendedora en una sociedad multicultural, la inclusión o la capacidad de empatizar con el entorno. Finalmente, en las conclusiones, destacamos cómo esta nueva metodología genera una nueva forma de enseñanza-aprendizaje dentro de la Educación Superior más coherente y ajustada a las necesidades del estudiantado.

# Educación superior

## **Evaluación de la educación inclusiva en el alumnado del Máster de secundaria de la especialidad de orientación educativa: Retos para mejorar la participación del alumnado**

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**Ana Arribas Moreno**

**Maria Teresa Quiles Diaz**

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La UNESCO (2015) definió la educación inclusiva como un proceso orientado a responder a la diversidad del alumnado a través de un incremento de su participación en el sistema educativo y actuando frente a todos los factores que pueden provocar su exclusión. Se pone el foco en asegurar la participación y perseguir los logros de todo el alumnado, con especial énfasis en aquellos que, por diferentes razones, están en situación de mayor vulnerabilidad. A nivel de la Educación Superior, se hace necesario un cambio de las culturas, políticas y prácticas universitarias en base a la equidad, la justicia social y la inclusión. Este proyecto va dirigido a alumnado del Máster del Profesorado en Educación Secundaria y Formación profesional con la finalidad de apoyar a las universidades comprometidas en ofrecer una educación de calidad a la diversidad de sus estudiantes y a mejorar la competencia del profesorado de secundaria respecto a esta temática. Como objetivo principal nos proponemos conocer cómo comprenden y qué opinan los estudiantes universitarios de la educación inclusiva de su universidad. En este caso concreto se trata de la Universidad de Alicante (España). A partir de los resultados obtenidos se podrá concluir el nivel de formación del alumnado de educación superior sobre la educación inclusiva para su posterior generalización como profesores del cuerpo de enseñanza secundaria en sus respectivos centros de enseñanza.

# Educación superior

## **Perfil emocional en autorregulación emocional en una muestra de estudiantes del Máster en Educación Secundaria y Formación Profesional, en función del sexo y de la edad: Cuestionario autoinformado TMMS-24**

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Actualmente, los docentes deben hacer frente en las aulas a situaciones cada vez más problemáticas, estresantes y violentas, sobre todo en los institutos de educación secundaria y de formación profesional. El objetivo del presente estudio es determinar el perfil emocional en autorregulación en una muestra de estudiantes universitarios, futuros docentes, del Master del Profesorado en Educación Secundaria y Formación Profesional, tanto en función del sexo como del rango de edad. Se trata de un estudio no experimental (ex post-facto) pre-experimental, descriptivo y por encuesta. La recogida de datos ha sido por autoinforme, aplicando la Escala para la Evaluación de la Expresión, Manejo y Reconocimiento de Emociones (Trait-Meta-Mood Scale [TMMS-24]). Los resultados muestran diferencias en función del sexo por una parte y en función del rango de edad establecido, por otra. Como conclusión en base a los datos obtenidos se establece que, aunque la mayor parte de los sujetos muestran una reparación emocional adecuada, hay un porcentaje que necesita mejorar su perfil emocional en este aspecto.

# Educación superior

## **Creación de Círculos de Aprendizaje Auto-Organizado: Una propuesta de vinculación académica entre la Facultad de Estudios Superiores Aragón, UNAM y la Escuela Normal Superior de México**

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Yadira Elizabeth Torres Rivera, Profesora, Pedagogía, Universidad Nacional Autónoma de México,  
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La pandemia por el COVID 19 trajo consigo alternativas de acercamiento entre las instituciones de educación superior a través del uso de recursos tecnológicos y permitió voltear la mirada a nuevas formas de obtener aprendizajes significativos y de interés para las comunidades escolares. En el 2023, se realizó una propuesta de interacción institucional entre la Facultad de Estudios Superiores Aragón de la Universidad Nacional Autónoma de México y la Escuela Normal Superior de México, con el propósito de que estudiantes de Licenciatura en Pedagogía y estudiantes Normalistas pudieran converger en espacios virtuales que les permitieran construir aprendizajes en el ámbito educativo. La forma tradicional de enseñanza, donde el docente es quien posee el conocimiento y los alumnos adquieren de él los elementos que fundamentan sus saberes y prácticas, ha quedado obsoleta debido a las necesidades emergentes de una sociedad envuelta por los avances tecnológicos y ha permitido rescatar la esencia del ser humano tomando en cuenta sus capacidades intelectuales, así como de búsqueda y asombro por descubrir por sí mismo el mundo y el legado histórico y cultural que lo complementan. Por ello, a partir de los preceptos de Sugata Mitra y el método de caso, se pretenden implementar Círculos de Aprendizaje Auto-Organizado donde diversas temáticas sean planteadas a través de preguntas por el docente y el aprendizaje sea construido mediante grupos de alumnos que utilicen el internet y lideren las experiencias que den respuestas a preguntas innovadoras y soluciones a problemáticas que están presentes en contextos particulares de educación.

# Educación superior

## **Estrategias de enseñanza y el modelo de Felder y Silverman: ¿Cómo relacionar las funciones?**

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El diseño de los procesos de aprendizaje apunta a un enriquecimiento de las experiencias de los estudiantes, fortaleciendo y desarrollando estilos de aprendizaje, lo que les permite transferir y absorber conocimientos en cualquier situación. Sin embargo, el profesor a menudo encuentra dificultades en la práctica docente debido a la diversidad de estilos de aprendizaje de los estudiantes. Por esta razón, el objetivo general de este trabajo fue presentar estrategias didácticas que puedan ser utilizadas en el contenido de función. La metodología de la investigación es bibliográfica, con un esfuerzo de análisis estadístico sobre la enseñanza de funciones y el modelo de Felder y Silverman. Para la recolección de datos se utilizó la base de datos Web of Science. Enumeramos las publicaciones de los últimos 5 años sobre la relación entre los estilos de aprendizaje y la enseñanza de funciones. Los resultados apuntan a una baja tasa de publicaciones sobre el tema, así como a la necesidad de explorar los modelos de estilos de aprendizaje para la creación de estrategias de enseñanza. Así, podemos idear una educación personalizada, teniendo en cuenta las preferencias de los alumnos relacionadas con la presentación de la información, para conseguir un aprendizaje más significativo y una mejor aplicación de los conocimientos en la vida real.

## **Estrategia de tutoría entre pares para favorecer las habilidades de autorregulación de los estudiantes de modalidad virtual con bajo desempeño escolar: Estudio de caso**

**Viviana Medrano Gallegos, Estudiante, Facultad de Psicología, Universidad Autónoma de Querétaro, Baja California, México**

De acuerdo a la revisión de la literatura, se evidencia que durante esta última década la modalidad virtual en educación superior ha tenido un crecimiento significativo y que especialmente en esta modalidad, la autorregulación del aprendizaje en los universitarios es indispensable y altamente asociada al éxito escolar. Asimismo, queda por sentado que las habilidades de autorregulación pueden ser desarrolladas a través de diversas estrategias, entre ellas la tutoría entre pares. Este proyecto de investigación-intervención tiene como objetivo diseñar una estrategia de tutoría entre pares para mejorar las habilidades de autorregulación de los estudiantes de pedagogía de la Universidad Virtual del Estado de Guanajuato con bajo desempeño escolar. Desde un enfoque cualitativo, a través de este estudio de caso se espera explorar los beneficios que pueden surgir en relación con la adquisición y/o mantenimiento del aprendizaje autorregulado en estudiantes con bajo rendimiento. Además, se valorará la percepción y satisfacción de los alumnos tutorados con respecto a la tutoría entre pares como herramienta para mejorar tales habilidades.

# Educación superior

## **Desarrollo de estrategias de retención en estudiantes ingresantes en las carreras de ingeniería: El caso de la Facultad de Ingeniería de la Universidad Nacional de Lomas de Zamora, Buenos Aires (Argentina)**

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**Vivian Aurelia Minnaard, Docente, Investigadora, Universidad de la Fraternidad de Santo Tomás  
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El proyecto se desarrolla en el ámbito del Instituto de Investigaciones en Tecnología y Educación IIT&E de la Facultad de Ingeniería - UNLZ. Entre los objetivos del Instituto se encuentran el interés por contribuir al mejoramiento de la enseñanza y a la formación de competencias de egreso, en particular en carreras científico tecnológicas, mediante la incorporación de tecnologías de la información y la comunicación (TIC) y el diseño de objetos de Aprendizaje. En el presente trabajo se describen las acciones realizadas durante el año 2023 con respecto a los alumnos ingresantes. En este sentido el Programa de Acompañamiento y Nivelación (PANI) apunta a acompañar los primeros pasos de los estudiantes en la vida universitaria, así como nivelar los déficits que se observan en matemática. El PANI está compuesto por 5 talleres que abarcan los siguientes contenidos: Números reales, Relaciones trigonométricas, Polinomios y expresiones racionales, Ecuaciones, inecuaciones y Sistemas de ecuaciones, Función lineal y función cuadrática. En el corriente año (2023) se han realizado dos ediciones del PANI, en el mes de febrero y en junio respectivamente, con un total de 567 aprobados. Los resultados se han estudiado teniendo en cuenta los errores cometidos así como los perfiles de los ingresantes.

## Primeros pasos en la Investigación: Miradas disciplinares dirigidas a la inclusión

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Mercedes Zocchi, Investigadora, Universidad FASTA, Argentina  
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El objetivo es indagar la percepción de estudiantes de Ciencias Médicas sobre investigación y temáticas asociadas a la inclusión seleccionan para desarrollar en sus protocolos en marzo 2023. Para ello se sigue una metodología de investigación descriptiva transversal. La muestra es de 175 estudiantes de 5 comisiones de la materia de Metodología de la Investigación seleccionados en forma no probabilística por conveniencia. Los estudiantes para referirse a la investigación emplean términos como búsqueda de información, resolución de problemas, análisis de datos, profundizar sobre un tema. Al indagar si han tenido experiencia en investigación, el 94% contesta que no, mientras que el 6 % señala que ha participado en propuestas de diversos grupos de investigación. Cuando se les consultó qué características debe presentar un investigador, señalan metódico, organizado, responsable, interés por lo estudiado, curioso, proactivo, creativo. Se les presenta la obra de Escher que representa la cinta de Moebius y lo relacionan con el trabajo en equipo, cooperativo, un camino con recorrido infinito. Con respecto a las temáticas a desarrollar en el protocolo de desarrollo procesual seleccionan deportes adaptados para favorecer la inclusión, como tenis, natación, surf, carrera de velocidad son algunos ejemplos. La cátedra de Metodología hace posible el tránsito de los estudiantes por un proceso y un proyecto, esto hace posible fortalecer y desarrollar habilidades asociadas a la investigación.

## **Game Based Learning (GLB) en contabilidad a través de casos gamificados**

**Javier Osés García, Profesor, Universidad de Barcelona, Barcelona, España**

Buscando la innovación docente en el ámbito universitario pueden aplicarse técnicas de gamificación que se combinen con otras metodologías de aprendizaje activo. El GBL o aprendizaje basado en juegos busca mejorar la experiencia de aprendizaje al tiempo que impulsar el rendimiento académico, capta la atención del estudiantado procurando una actitud más interactiva y participativa. La experiencia desarrollada en nuestros grupos de docencia ha consistido en la utilización de una batería de casos cuya redacción está basada en situaciones reales de empresas, noticias de prensa recientes o normas contables concretas, acercando así la realidad empresarial a las aulas. La orientación de los casos es eminentemente práctica, buscando despertar el interés en el estudiantado el interés por la actualidad que les rodea. Los casos contenían elementos de juego serio con propósito. Al mismo tiempo, los casos eran la continuación de una actividad lúdica a lo largo del curso, como juego de descubrimiento, en la que debían localizar un nuevo conocimiento del plan docente de la asignatura. Después de responder una encuesta de opinión, el estudiantado ha valorado las actividades de manera positiva, apreciando un efecto motivador y una utilidad para la preparación de las pruebas de evaluación. El profesorado valoramos la experiencia como satisfactoria, por los impactos en motivación e implicación del estudiantado, así como en la mejora de las competencias adquiridas, aunque no puede afirmarse que haya tenido efecto sobre las tasas de rendimiento.

# Educación superior

## **Exploración del potencial de la gamificación en la formación de futuros docentes de educación física: Transferencia de conocimiento, de la práctica a la realidad educativa**

**Beatriz Rodríguez Martín, Universidad de Barcelona, España**  
**Mireya Mallén Berdejo, Universidad de Zaragoza, España**

La gamificación, definida como un modelo pedagógico que integra elementos del juego en el entorno educativo, ha demostrado efectos positivos a nivel afectivo y emocional en los estudiantes de diversos niveles formativos, favoreciendo el proceso de enseñanza-aprendizaje. Por ello, es fundamental incorporar la gamificación en la formación docente para garantizar su adecuada implementación en las escuelas. El objetivo de la investigación es conocer cómo los futuros docentes viven, perciben y se plantean las experiencias gamificadas durante su formación y como futuros maestros. Participaron 30 estudiantes de la asignatura de Iniciación a los Deportes Colectivos del Grado en Maestro de Educación Primaria. Se empleó un cuestionario ad hoc con ocho preguntas abiertas y once cerradas siendo analizados con Atlas.ti y Excel. Los hallazgos revelaron aumentos significativos en la motivación y participación, junto con una percepción positiva de las emociones y una mayor implicación sobre las actividades de aprendizaje. La experiencia fue valorada positivamente llegando a reconocer sus beneficios educativos, aplicaciones didácticas y sus limitaciones. Además, el 84,8% del alumnado expresó su intención de diseñar e implementar programas gamificados en su futura docencia. No obstante, solo el 70,4% se consideró preparado en términos de conocimientos y herramientas para llevarlo a la práctica. En conclusión, la gamificación no solo mejora la motivación, la implicación y los aspectos emocionales de los estudiantes en formación, sino que también fortalece las competencias didácticas de los futuros docentes. Estos aspectos deben ser considerados en el diseño de las programaciones en la formación del profesorado.

## **Elaboración de un instrumento para conocer el nivel de riesgo de deserción en estudiantes de licenciatura**

**Iliana Ruvalcaba, Estancia posdoctoral, Unidad Académica de Psicología, Universidad Autónoma de Zacatecas, Zacatecas, México**

El objetivo de esta investigación fue el desarrollo de un instrumento que permita detectar alumnos de licenciatura en riesgo de deserción. La metodología utilizada fue de tipo mixta, con diseño correlacional, de tipo documental y con alcance descriptivo. El instrumento realizado, después del proceso de claridad y jueceo, quedó conformado con 153 reactivos y en el que se consideraron factores de tipo económicos, mala elección de carrera, individuales, familiares, derivados de la pandemia, relacionados con las instituciones y los docentes, tecnológicos y demográficos. Ante el análisis y medición de los resultados obtenidos del pilotaje con 98 estudiantes, se obtiene con un alfa de Cronbach general de 0.965 lo que indica, que al final, el instrumento es altamente confiable para medir lo que se pretende medir.

# Educación superior

## **Percepción de la contribución e impacto de los programas de VCM de la Universidad Bernardo O'Higgins: Estudio retrospectivo desde la satisfacción de estudiantes, docentes y socios comunitarios**

**Reinaldo Salazar Martínez, Vicerrectoría de Vinculación con el Medio, Universidad Bernardo O'Higgins, Santiago de Chile, Región Metropolitana de Santiago, Chile**

Desde la perspectiva de la vinculación con el medio, como rol esencial de las universidades, la contribución se entiende como el aporte social directo a los beneficiarios, mientras que la contribución apunta al mejoramiento de la calidad de vida desde una perspectiva estructural, ligada a la trazabilidad en el tiempo. Se desarrolló un estudio retrospectivo, cuyo objetivo fue conocer la percepción y el impacto de los programas de Vinculación con el medio de la Universidad Bernardo O'Higgins, considerando las características de satisfacción desde los principios de VCM del modelo UBO (bidireccionalidad, interacción significativa, coherencia con la misión y creación de valor compartido). Estudio cuantitativo, de tipo descriptivo, de diseño no experimental, longitudinal, mediante el análisis de datos estadísticos de encuestas aplicadas (encuesta que mide satisfacción mediante escala de Tipo Likert) a estudiantes, docentes y socios comunitarios desde 2018 hasta 2023. Se obtiene como resultado del análisis descriptivo todos los participantes de los programas fluctuaron su nivel de satisfacción entre 94% y 96%, considerado alto. En general, el aporte a la satisfacción de las personas es adecuado en el desarrollo del programa, pudiendo inferirse adecuada contribución e impacto en el quehacer de la vinculación con el medio UBO.

# Educación superior

## **Exploración de las necesidades educativas de los tutores clínicos para mejorar la docencia en experiencia clínica**

**Paula Soto Troncoso, Escuela de Enfermería, Pontificia Universidad Católica de Chile, Chile  
Claudia Flores, Pontificia Universidad Católica de Chile, Región Metropolitana de Santiago, Chile**

Los tutores clínicos enlazan programas académicos y la práctica clínica. El tutor ejerce un rol de modelaje, enseña habilidades técnicas y modela el pensamiento crítico. Es prioritario contar con tutores clínicos preparados para el proceso de enseñanza-aprendizaje de los estudiantes, que permitan el logro de las competencias del Perfil de egreso. Se desarrolló un proyecto de innovación en docencia para diseñar un programa de formación de tutores clínicos remoto. Uno objetivo fue identificar las necesidades educativas de los tutores en docencia clínica. Metodología: Con posterioridad a la autorización ética, se realizaron 3 grupos focales dirigidos por un profesional externo al equipo de investigación que guio la conversación sobre desafíos, habilidades necesarias y características de un programa de formación; fueron grabados y transcritos verbatim por el mismo profesional. Se realizó análisis de contenido. Resultados: Participaron 15 tutores clínicos. Los temas identificados como necesidades educativas fueron: manejo de situaciones difíciles, objetivos de aprendizaje del curso, herramientas de feedback, características de los estudiantes, acompañamiento del cuerpo docente y estrategias de enseñanza-aprendizaje en el campo clínico. Conclusiones: Los temas obtenidos son concordantes con la literatura, reportando dificultad para reprobar a los estudiantes, sentimiento de falta de apoyo de la institución clínica, deseo de más competencias en el área de evaluación. En contraste, aquellos grupos que han recibido apoyo de la institución aumentan su seguridad como tutores. Conocer las necesidades educativas de los tutores permite crear intervenciones educativas a partir de una necesidad sentida y no impuesta, lo que puede traer mejor aceptación en su implementación.

# Educación superior

## **Explorando la inclusión desde la mirada estudiantil: Culturas, políticas y prácticas en una institución formadora de docentes**

**Jorge Trujillo Segoviano, Docente, Investigación y Posgrado, Escuela Normal Experimental de El Fuerte, Sinaloa, México**

**Cintia Maribel Vega Quintero, Directora, Escuela Normal Experimental de El Fuerte, Sinaloa, México**

**Aurora Felix Delgado, Docente, Posgrado, Escuela Normal de Especialización del Estado De Sinaloa, Sinaloa, México**

**Samantha Rocío Alcantar García, Docente, Escuela Normal Experimental de El Fuerte, Sinaloa, México**

La investigación se plantea el objetivo de explorar el desarrollo del enfoque inclusivo en la Escuela Normal Experimental de El Fuerte, Sinaloa (México) desde la percepción de los estudiantes, con la finalidad de proponer mejorar institucionales en este rubro. Esta investigación adoptó un enfoque cuantitativo para examinar la inclusión en el contexto educativo. Se optó por un diseño no experimental y transversal. El instrumento utilizado fue el cuestionario de indicadores de Inclusión-Bristol, que se basa en una escala Likert y comprende 43 indicadores distribuidos en tres dimensiones clave: crear culturas inclusivas, implementar políticas inclusivas y fomentar prácticas inclusivas. Para seleccionar la muestra, se empleó un método no probabilístico intencionado, buscando la participación de 49 estudiantes normalistas matriculados en el programa de Licenciatura en Educación Primaria. En relación a las culturas inclusivas se evidencia bajos valores en el indicador de colaboración entre profesores y directivos, así como comunicación entre estos y los padres. En la dimensión de políticas inclusivas se manifiestan percepciones bajas en organización grupos de enseñanza para atender a la diversidad de necesidades y minimizar expulsiones y el bullying. Finalmente, en las prácticas inclusivas, se advierte la importancia de implantar estrategias para promover la enseñanza mas allá del interior de las aulas de clase, así como promover materiales para apoyar diversas necesidades de los estudiantes.

# Educación superior

## **Las Humanidades Digitales en la enseñanza universitaria: Estado actual y retos de futuro**

**Alejandra Ulla, Profesora Titular, Departamento de Lengua y Literatura Española, Teoría de la Literatura y Lingüística General, Universidad de Santiago de Compostela, A Coruña, España**

En los últimos 40 años, las Humanidades Digitales, entendidas como la aplicación de las tecnologías informáticas a los métodos de trabajo de las humanidades, han tenido un extraordinario desarrollo en el ámbito de la investigación universitaria española y han permitido responder a preguntas de investigación que hubieran sido inalcanzables con los métodos de investigación tradicionales. Sin embargo, la formación en esta disciplina ha estado excluida de los planes de estudio de la enseñanza superior, especialmente en los niveles de licenciatura y doctorado. Esta exclusión de la formación tecnológica en los planes de estudio españoles de las titulaciones de humanidades tendrá, sin duda, un impacto negativo en los procesos formativos de los futuros docentes e investigadores, así como una repercusión en la sociedad, y constituye hoy en día una preocupación para muchas instituciones universitarias que tratan de reflexionar sobre el alcance y la calidad de su oferta educativa en este sentido. En este trabajo se explorarán algunos programas de estudios de grado, máster y doctorado en humanidades para comprender cómo la universidad española ha elaborado una estrategia formativa respecto a este campo de especialización.

# Organización educativa y liderazgo

## El enfoque de cultura de paz en la educación superior: Experiencias desde los centros de mediación

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**Oscar Rafael Hernández Meneses, Doctorando, Universidad Nacional Autónoma de México, México**

Este trabajo tiene como propósito presentar el enfoque de cultura de paz en la educación superior como vía para el libre desarrollo de la personalidad en la universidad. Se propone la implementación de los centros de medios alternos de solución de controversias, que resaltan la tendencia por lograr una justicia restaurativa, la resolución pacífica de los conflictos y la cultura de la legalidad, con apego al enfoque de derechos humanos y perspectiva de género. Se usa el enfoque de la cultura de paz y se realizó una exploración de universidades públicas donde se han implementado este mecanismo, destacando la UJAT. Se utiliza el marco jurídico de la propia universidad, así como los principios de la nueva Ley General de Mecanismos Alternativos de Solución de Controversias, publicada el 26 de enero de 2024. En México, el modelo de resolución de controversias de las universidades ha sido la creación de tribunales universitarios; sin embargo, no todos los asuntos que llegan a un tribunal merecen tratarse en esa naturaleza. En su lugar, la mediación se presenta como una solución creativa y orientada hacia la justicia restaurativa, que permite solucionar problemas de fondo, sanar las diferencias y transitar hacia una cultura de paz. El estudio concluye que el enfoque de cultura de paz es idóneo para mejorar el aprendizaje en la educación superior. La creación de los centros de mediación universitarios representa una alternativa para mejorar la convivencia y promover el respeto a los derechos humanos.

# Organización educativa y liderazgo

## **Fundamentos de la educación inclusiva en la Reforma Educativa en México: Tensiones entre el conocimiento científico y la justicia social**

**José Antonio Ramírez Díaz, Profesor e Investigador, Departamento de Estudios en Educación, Universidad de Guadalajara, CUCSH, Jalisco, México**

A partir del período post revolucionario, el Estado mexicano realizó continuos cambios en los diferentes niveles de la educación mediante reformas que reflejaron la prospectiva y la función del sector educativo para los gobernantes en turno. La educación emergente del período revolucionario se cimentó en la búsqueda de la cohesión social por medio de la identidad nacional. Este modelo fue sustituido con la apertura de la economía mexicana al comercio internacional. Entre 1982 y 2018, prevalecieron los gobiernos de corte neoliberal que dispusieron reformas educativas orientadas a satisfacer las demandas del sector económico. Para 2019, el gobierno en turno, como primera acción de gobierno, derogó la Reforma Educativa previa para imponer una nueva. La Reforma Educativa de 2019, al emanar de un gobierno de izquierda, dispuso un conjunto de drásticos cambios para la educación básica (preescolar, primaria y secundaria), que tienen repercusiones en el nivel medio y superior (donde se incluye la educación Normal), al orientarla a la búsqueda de la justicia social, la eliminación de las inequidades y la discriminación social. El proyecto educativo se fundamenta en una "Nueva Escuela Mexicana", las necesidades de las comunidades aledañas a la escuela y el conocimiento dado en la experiencia de los docentes. Esto significa un desplazamiento a la histórica formación curricular articulada en torno a las ciencias que había sido el fundamento de la formación de los niños y jóvenes mexicanos. Se presentan resultados de investigación sobre las tensiones en torno al mapa curricular, los fundamentos del aprendizaje y la enseñanza.

# Organización educativa y liderazgo

## **Comunidades de Práctica Profesional y metodologías activas: Sinergias para el aprendizaje y la innovación**

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Ana Isabel Invernón Gómez, Universidad de Almería, España  
José Manuel Ortiz Marcos, Universidad de Granada, España**

Las Comunidades de Práctica Profesional (CoP) y las metodologías activas son dos enfoques que, cuando se integran, potencian el aprendizaje y la innovación en entornos educativos y profesionales. Las CoP se refieren a grupos de individuos que comparten un interés común y se reúnen para compartir conocimientos, experiencias y mejores prácticas, fomentando un aprendizaje continuo y colaborativo. Por otro lado, las metodologías activas son estrategias pedagógicas que implican a los participantes de manera activa en su proceso de aprendizaje, promoviendo el pensamiento crítico, la resolución de problemas y la aplicación práctica de conocimientos. La sinergia entre las CoP y las metodologías activas crea un entorno dinámico donde los miembros no sólo adquieren conocimientos teóricos, sino que también los aplican y perfeccionan a través de la interacción y la colaboración. Esta combinación facilita la adaptación a cambios y la innovación, ya que los participantes están constantemente expuestos a nuevas ideas y enfoques prácticos. Se empleó el método propio de las revisiones sistemáticas de la literatura (SLR), consistente en identificar, evaluar e interpretar de forma sistemática los trabajos producidos en el campo de la formación y metodologías activas. Se realizó una búsqueda exhaustiva en la base de datos WOS y Scopus. El periodo de esta búsqueda data entre los años 2013-2024, empleando como términos de búsqueda: "school organization", "community of practice" y "active learning". En resumen, la integración de comunidades de práctica profesional y metodologías activas constituye una poderosa estrategia para impulsar el aprendizaje continuo y la innovación en diversos contextos.

# Organización educativa y liderazgo

## Liderazgo educativo para el fortalecimiento de la calidad desde la gestión académica, la gestión estratégica y la gestión administrativa de los directivos docentes

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En el contexto colombiano se evidencian factores incidentes en las prácticas eficaces del liderazgo ejercido por los directivos docentes, que contribuyen a la calidad educativa y por ello se puede determinar que, aunque el proceso de enseñanza-aprendizaje está direccionado a nivel nacional, se encuentran marcadas diferencias en factores sociales, económicos y culturales. Esta investigación tuvo el propósito de analizar las prácticas eficaces de liderazgo institucional para la calidad educativa de instituciones de educación básica y media en Colombia, tanto a nivel rural como urbano en ocho departamentos. La metodología de la investigación fue aplicada, con un enfoque mixto y alcance descriptivo. La población estuvo conformada por directivos docentes y docentes de diferentes instituciones educativas públicas y privadas. De esta manera, se llegó a la conclusión que entre los factores que definen la calidad educativa sobresalen: la gestión escolar eficiente, la evaluación educativa, las prácticas innovadoras, los óptimos ambientes de aprendizaje, la comunicación asertiva, el acompañamiento de la comunidad, el trabajo en equipo y los convenios interinstitucionales. Por otro lado, la percepción de los profesores acerca de las prácticas eficaces, se relaciona con la importancia de cualificar a los directivos docentes en liderazgo y la creación de una cultura organizacional que permita la mejora continua. Asimismo, entre los factores internos y externos que limitan o posibilitan el liderazgo educativo se identifican: comunicación asertiva, motivación, políticas educativas nacionales, estrés, manejo de emociones, alto número de estudiantes por aula, hogares disfuncionales y la sobrecarga laboral.

# Organización educativa y liderazgo

## **Percepciones y desafíos en convivencia escolar y salud mental: Análisis crítico de la implementación y efectividad de iniciativas financiadas por el CPEIP en el contexto escolar chileno**

**Claudio Rodrigo Quiroz Troncoso, Director de Educación Continua, Prorrectoría, Universidad Metropolitana de Ciencias de la Educación, Región Metropolitana de Santiago, Chile  
Felipe Seguel Rojas, Académico y Encargado de Extensión y Formación para la Ciudadanía PACE, Universidad Católica Silva Henríquez, Región Metropolitana de Santiago, Chile**

Este estudio investiga el impacto de 128 talleres sobre convivencia escolar y salud mental, específicamente en el contexto de liderazgo y organización educativa. Financiados por el Ministerio de Educación de Chile y encomendados al Centro de Perfeccionamiento, Experimentación e Investigaciones Pedagógicas (CPEIP), estos talleres se realizaron en modalidades presencial y virtual, abarcando temas como la prevención de violencia en las aulas y el suicidio en niños, niñas y adolescentes. Participaron 1897 profesionales de la educación de establecimientos públicos y privados con subvención estatal, incluyendo docentes, asistentes de la educación y directivos. A través de encuestas post-taller, se evaluó la percepción de los participantes sobre la utilidad práctica de los talleres y el compromiso de los líderes educativos en la promoción de prácticas efectivas de convivencia y salud mental. Los resultados revelaron una valoración positiva de los talleres en términos de herramientas prácticas ofrecidas. Sin embargo, hubo una percepción crítica acerca del liderazgo educativo, especialmente entre los directivos, señalando deficiencias en la implementación y seguimiento de políticas y estrategias relevantes. Este análisis subraya la importancia crítica del liderazgo y la gestión eficaz en las instituciones educativas para garantizar la aplicación efectiva de iniciativas de convivencia y bienestar socioemocional, sugiriendo un área clave para el desarrollo profesional y la reforma organizativa en el sistema educativo chileno.

# Identidad y diversidad de los estudiantes

## Poesía y comprensión en la escuela: El decir de los adolescentes

**María Victoria Alcalá, Docente y coordinadora, Wolfsohn - San Jorge - UCA, Capital Federal, Argentina**

Partiendo de que la poesía genera beneficios cognitivos debido a su alto grado de polisemia y de flexibilidad lingüístico-simbólica, nos proponemos explorar cómo su implementación en la escuela trae efectos altamente positivos en el proceso educativo, especialmente en la construcción de la identidad. La enseñanza formal y no formal, a través de métodos del art thinking y de visible learning, se posiciona actualmente como el ámbito indicado para desarrollar procesos de subjetividad, emancipación y socialización en los adolescentes. En base a las experiencias de clase de los últimos 10 años, creemos que la poesía vence los vicios y déficits de la producción de la lecto-escritura, tanto por su impacto emocional como por su posibilidad de explorar los límites de la identidad junto con otros. Cabe aclarar que dichos déficits se encuentran agravados por la situación de crisis de los sistemas educativos y sociales contemporáneos. La poesía es, ante todo, un territorio subyugante para conectar a los estudiantes con el mundo de los otros y su entorno común. Se trata de revitalizar los lazos en una actualidad en tiempos de fragmentación y pérdida. Por un lado, trabajamos sobre la relación entre cuerpo y emoción; y por otro, nos interesa evidenciar la producción de corpus poéticos que problematizan la identidad. Finalmente, compartiremos resultados y reflexiones en torno a distintos programas de literatura que ubican a la poesía como centro de la enseñanza secundaria.

## Transferencia e identificación: Dos procesos básicos en la elaboración de las crisis de identidad en la adolescencia

**Viviana Rafaela Carmona Torres, Investigadora, Instituto Politécnico Nacional, Distrito Federal, México**

El presente trabajo aborda el caso clínico de una adolescente que experimentó una crisis de identidad, acompañada de dificultades académicas y conductas disruptivas. Se destacan los desafíos de la adolescencia desde la perspectiva psicoanalítica, incluyendo la reorganización de la identidad y la gestión de duelos por la infancia. Se describe el tratamiento integral que incluye psicoterapia individual, asesoramiento familiar, coordinación con el equipo escolar y apoyo en temas de identidad de género.

# Identidad y diversidad de los estudiantes

## **Optimizando el camino hacia la alfabetización de niños y niñas con riesgo lector y Trastorno del Desarrollo del Lenguaje (TDL): Evaluación del impacto de un programa de habilidades lingüísticas integradas (vocabulario + gramática)**

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**Daniela Rojas Contreras, Académica, Fonoaudiología, Universidad de Chile, Región Metropolitana de Santiago, Chile**

El estudio tiene como objetivo evaluar el efecto de un programa diseñado para vincular el aprendizaje de vocabulario específico y de algunas habilidades gramaticales en niños/as con riesgo lector, específicamente en aquellos/as con Trastorno del Desarrollo del Lenguaje (TDL). Se evalúan dos aspectos: 1) sus habilidades en vocabulario y gramática, y 2) su comprensión lectora un año después de aplicado el programa. Metodología: El programa se aplicó durante 20 semanas, dividido en dos semestres, con un grupo de estudio (35 niños) y un grupo control (38 niños). Se realizó un pretest (T1) y un postest (T2) para evaluar los efectos de la intervención en habilidades lingüísticas específicas como formulación de oraciones, estructura de palabras, vocabulario receptivo y clases de palabras. Resultados: Todas las variables mostraron un aumento estadísticamente significativo entre T1 y T2, con interacciones significativas en clases de palabras y estructura de palabras, indicando un mayor incremento en el grupo de estudio. Sin embargo, no se encontraron diferencias significativas en la comprensión lectora ni en la decodificación entre los grupos. Implicaciones: El programa impactó positivamente en las habilidades lingüísticas de los niños/as con riesgo lector, pero no se observó transferencia de estas habilidades a la comprensión lectora en 1º básico. Se sugiere que el apoyo a predictores lingüísticos debe mantenerse durante 1º básico, y se destaca la necesidad de intervenir directamente la decodificación y la comprensión lectora. Se enfatiza la necesidad de investigaciones adicionales para diseñar intervenciones más adecuadas especialmente en el contexto de Proyectos de Integración Escolar (PIE).

# Identidad y diversidad de los estudiantes

## **Factores que favorecen la inclusión de estudiantes con discapacidad durante su trayectoria académica: El caso del Centro Universitario de Ciencias de la Salud de la Universidad de Guadalajara**

**David Elicerio Conchas, Full-time Professor and Planning Coordinator, University Center for Health Sciences, Universidad de Guadalajara, México  
Pamela Georgina Hernandez Carrillo, Educational Psychologist, Jalisco, México**

Las normativas internacionales, nacionales y locales establecen como objetivo primordial la inclusión del alumnado con discapacidad en la Educación Superior (ES). El interés principal de este trabajo fue conocer y comprender la experiencia de las y los estudiantes con discapacidad mediante la identificación de los factores que han favorecido su inclusión y las barreras a las que se han enfrentado a lo largo de su trayectoria académica universitaria. Para ello, se realizó un estudio cualitativo y, los factores que favorecen y las barreras identificadas para la inclusión se analizaron desde la Teoría ecológica del desarrollo humano y se observó que se presentan en los diferentes entornos en los que se desarrolla el estudiante con discapacidad: personal, familiar, institucional y contextual, así como, en los tres momentos de su trayectoria académica: acceso, permanencia y egreso. A su vez, los factores se agruparon en las tres dimensiones que integran el Índice de inclusión (cultura, políticas y prácticas inclusivas). Los resultados muestran que los principales factores que favorecen la inclusión del alumnado con discapacidad son: el conocimiento que tiene el propio estudiante de su condición y sus necesidades, el acompañamiento familiar, el apoyo de sus compañeros, contar con la ayuda y guía de la diferentes dependencias institucionales y los apoyos económicos. En cuanto a las barreras, destaca la necesidad de mejorar la infraestructura institucional y externa y, el conocimiento acerca de la inclusión y de las personas con discapacidad.

# Identidad y diversidad de los estudiantes

## Necesidades educativas en niños con Trastorno de Desarrollo del Lenguaje en la etapa de Educación Primaria

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**Paula López Peces, Universidad Castilla-La Mancha, España**

**Esther Moraleda Sepúlveda, Universidad Castilla-La Mancha, España**

**Patricia López Resa, Universidad de Castilla La Mancha, España**

Las personas con Trastorno de Desarrollo del Lenguaje (TDL) presentan una serie de dificultades académicas, sociales y adaptativas que les acompañan a lo largo de su desarrollo, especialmente porque la lectura y escritura se ven seriamente comprometidas. El objetivo de esta comunicación es poner de manifiesto estas alteraciones y proporcionar a su vez propuestas para la mejora de su desempeño educativo. Es muy importante considerar estas características para que todos los profesionales que trabajan con este colectivo puedan proporcionar estrategias de ayuda dentro del marco educativo como del entorno clínico. Para ello, se han revisado las fuentes dirigidas a mostrar la evidencia científica de la eficacia de la intervención con este tipo de alumnado. Los resultados ponen de manifiesto que la intervención debe ser sistematizada y repasa las ayudas necesarias dentro del contexto escolar que permitan seguir mejorando a las personas con Trastorno de Desarrollo del Lenguaje, especialmente en la etapa de Educación Primaria. Como conclusión, cabe destacar la necesidad de seguir insistiendo en prácticas educativas adecuadas a lo largo de todas las etapas educativas.

## Educación intercultural a pesar del estado: Proyectos pedagógicos Muchik y profesores en la región Lambayeque en Perú

**Diego Emilio Luza Fernández, Researcher and Teacher, Department of Basic Courses, Universidad Científica del Sur, Lima, Perú**

Esta investigación analiza, a través de entrevistas a docentes de escuelas de la región Lambayeque en Perú, el proyecto pedagógico Muchik. Este movimiento de revitalización tanto de la lengua nativa, como de la cultura local en el norte del Perú, ha permitido a varios docentes de escuelas construir proyectos con miras a cambiar las relaciones sociales en las comunidades de la región Lambayeque. Los docentes han podido crear nuevas herramientas para ayudar a las nuevas generaciones de sus comunidades a responder a problemas antiguos y actuales en su contexto. De esta manera, inauguran un nuevo tiempo en el que los docentes promueven la educación intercultural más allá de la escuela.

# Identidad y diversidad de los estudiantes

## **Formación en inclusión y diversidad de carreras de pedagogía de 13 universidades en Chile: Cómo se está formando en inclusión y diversidad**

**Cecilia Millán, Investigadora y docente, Centro de Investigación para la Transformación Socioeducativa, Universidad Católica Silva Henríquez, Región Metropolitana de Santiago, Chile**

Chile se caracteriza por tener un sistema educativo poco equitativo, que se acentúa con las diferencias sociales de clase, género, origen étnico y condición de inmigrantes. La investigación evidencia que, a pesar de la creciente diversidad en las escuelas y de la necesidad de formación inicial en ésta, aún sigue siendo un ámbito que no se aborda con la profundidad que se requiere. Los estudios muestran que mientras más preparación y oportunidad para reflexionar tengan sobre diversidad los estudiantes de pedagogía, estarán mejor preparados para su ejercicio profesional. Esta investigación buscó comprender cómo se está formando en diversidad e inclusión en la carrera de Pedagogía en Educación Primaria en trece universidades de diez regiones del país. Es una investigación con perspectiva cualitativa que en su primera etapa trabajó con datos secundarios, programas de cursos obligatorios y optativos de la carrera de Pedagogía de Educación Básica. De los 702 programas recibidos y revisados de las 13 universidades se analizaron 232. Se concluye que los enfoques que predominan son: políticas públicas y normativas; inclusión y/o exclusión; interseccional; alteridad; multiculturalidad y/o interculturalidad; problematizador; constitutivo, Derechos Humanos, histórico. Además los programas de curso se centran en aspectos declarativos mas que en lo actitudinal o práctico y predomina su valoración positiva, sin considerar sus tensiones, conflictos, discriminaciones y la desigualdad que viven.

# Identidad y diversidad de los estudiantes

## Descubriendo la percepción y capacidades de los futuros docentes para la inclusión de estudiantes con discapacidad

José Manuel Ortiz Marcos, Universidad de Granada, España

Ana Isabel Invernón Gómez, Universidad de Almería, España

Lina Higueras-Rodríguez, Universidad de Granada, España

En este estudio, se realizó la adaptación y validación de la escala de percepciones y conocimientos de los docentes en formación sobre la inclusión en el aula de estudiantes con discapacidad (PERKIN), destinado a evaluar la preparación de futuros docentes en la atención a estudiantes con discapacidad. El instrumento se desarrolló mediante una revisión exhaustiva de la literatura científica y el juicio de expertos, asegurando así su relevancia y claridad. Los datos se recopilaron en 1006 estudiantes universitarios en España, utilizando un muestreo por conveniencia. Los resultados del análisis factorial exploratorio revelaron cuatro dimensiones distintas: capacidades derivadas de la formación universitaria, competencias en innovación docente, conciencia inclusiva sobre necesidades organizativas y creencias culturales sobre la inclusión. Cada dimensión mostró una fiabilidad interna satisfactoria, con valores de alfa de Cronbach que oscilaron entre 0.82 y 0.94. El análisis factorial confirmatorio respaldó la estructura factorial encontrada en el análisis exploratorio. Estos hallazgos ofrecen una herramienta validada y confiable para evaluar la preparación de futuros docentes en la atención a la diversidad, lo que contribuye significativamente al campo educativo y a la inclusión de estudiantes con discapacidad. Este estudio refleja un compromiso con la mejora continua de la formación docente y la promoción de prácticas inclusivas en el ámbito educativo.

## Luz, cámara e inclusión: Identidad, diversidad y cultura digital

Claudio Gonzalo Peña, Director, Educación y Comunicación, Escuela Dr. José Vicente Zapata, Argentina

La presente experiencia se lleva a cabo en Mendoza (Argentina) organizada por la Escuela Dr. José Vicente Zapata. La misma consiste en la organización de un Festival de cortometrajes y fotografía denominada: "Luz, Cámara e Inclusión". El proyecto intenta escuchar que están tratando de decir nuestros estudiantes, a través de sus historias, sus relatos, sus vivencias respecto a diferentes temáticas relacionadas con su propia actualidad, utilizando las artes audiovisuales. Con la implementación de este proyecto nos proponemos, que la utilización de las Tics facilite la tarea pedagógica, mejorando la calidad de la educación y ampliando las oportunidades de acceso al conocimiento. Se propone la utilización del arte audiovisual como herramienta para la producción en forma colaborativa. En esta nueva edición para el 2023, nos proponemos trabajar sobre la Inclusión, Diversidad y Equidad. Inclusión: Con este eje pretendemos potenciar proyectos que trabajen para la promoción de los derechos por parte de toda la ciudadanía, eliminando las barreras y disminuyendo las desigualdades que atentan contra un acceso equitativo a las oportunidades. La inclusión de todas personas con discapacidad, la tercera edad y el colectivo de LGTB son temáticas propuesta para este eje. Diversidad: la diversidad es la presencia de la diferencia. En el contexto del compromiso cívico, la diversidad suele referirse a la representación de diferentes identidades a través de rasgos como la raza, la identidad de género y la discapacidad. Buscamos proyectos que muestren un mundo sin etiquetas, libres de preconceptos y estereotipos.

# Identidad y diversidad de los estudiantes

## Aprendizaje de las ciencias de enfermería de una estudiante universitaria en condición de discapacidad auditiva (sordera): Ruta de intervención educativa inclusiva

**Adriana Rivera, Académica, Escuela de Enfermería, Universidad Católica Cardenal Raúl Silva Henríquez, Región Metropolitana de Santiago, Chile**

La presente ponencia está orientada a mostrar la experiencia de un estudio de caso, con un enfoque cualitativo, en el que se vivenció un contexto educativo con estudiante en contexto de necesidades especiales, donde se generaba una problemática relacionada con la educación recibida por la estudiante en condición de discapacidad auditiva consistente en sordera. Como objetivo principal se proponía el desarrollo de una ruta de intervención educativa inclusiva en la que se implementaran estrategias como medida de apoyo para favorecer el aprendizaje de enfermería de la estudiante en condición de discapacidad auditiva, y fortalecer los procesos de formación, de acompañamiento y de enseñanza-aprendizaje dirigidos a futuros estudiantes en condición de necesidades especiales dentro de la Universidad. La ruta de trabajo se construye en cuatro fases: observación, análisis, diseño, intervención y monitoreo. Los resultados se analizarán durante el desarrollo de cada una de estas cuatro fases.

## Desafiando la exclusión: Inclusión educativa del alumnado con diversidad funcional auditiva

**Jennifer Serrano García, Universidad de Granada, España**

El alumnado vulnerable es aquel que se encuentra en situación de desigualdad con respecto a sus compañeros. En este caso, nos vamos a centrar en el alumnado con diversidad funcional auditiva: la sordera. Una discapacidad invisible a los ojos de la sociedad. En el ámbito de la educación, son muchos los estudiantes pertenecientes a colectivos vulnerables. Esta situación conduce a que estos estudiantes se sientan excluidos por el sistema educativo. La cifra de estudiantes sordos en las diferentes etapas educativas es muy alta. Estos alumnos a menudo ven vulnerados sus derechos de acceso a la información y a la comunicación, siendo relegados de la participación en sus centros educativos, así como en la sociedad en general. Cabe resaltar que todas las personas somos muy diferentes, pero cuando hablamos de necesidades, no siempre es fácil cubrirlas, más aún si se desconocen los recursos existentes para ello. Por esta razón, es importante que, a través de la materia de acción tutorial, los futuros docentes puedan recibir la formación necesaria para afrontar estos desafíos educativos. Estos alumnos y alumnas viven inmersos en una sociedad auditiva, donde el acceso a la información y la comunicación son sus principales hándicaps. Con esta comunicación pretendemos dar visibilidad a las barreras que enfrenta este alumnado y establecer propuestas para favorecer su inclusión, principalmente en los centros educativos, así como en la sociedad.

# Identidad y diversidad de los estudiantes

## Eficacia de la terapia psicoanalítica en el abordaje de dificultades conductuales: Caso de un adolescente con síndrome de Asperger

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**Jose Roman Huerta Araujo, Psicólogo, IPN CICS UST, Distrito Federal, México**

**Viviana Rafaela Carmona Torres, Investigadora, Instituto Politécnico Nacional, Distrito Federal, México**

El síndrome de Asperger, clasificado dentro del Trastorno del Espectro Autista (TEA), es una condición del neurodesarrollo que afecta significativamente las habilidades sociales y comunicativas de las personas. En el presente trabajo se describe el caso de un adolescente de 16 años diagnosticado con TEA que acudió a consulta presentando síntomas clínicamente significativos de ansiedad de separación, conductas autolesivas, dificultades en la expresión verbal, bajo rendimiento académico y comportamientos sexuales inapropiados. Se describe la intervención realizada a través de sesiones individuales de terapia psicodinámica en las que se abordaron las dificultades conductuales mencionadas anteriormente, poniendo especial énfasis en el fortalecimiento de recursos personales que fomenten un desarrollo afectivo-sexual adaptativo. Después de un año de psicoterapia se observó un incremento en el desempeño académico, disminución de los síntomas de ansiedad y un aumento significativo del nivel de autonomía del paciente.

# Aprendizaje en adultos, comunitario y profesional

## **La música y su impacto en el proceso de diseño en estudiantes universitarios: Explorando los efectos de la música en el proceso creativo y la concentración en contextos académicos neurodivergentes**

**Maria Fernanda Bañuelos, Universidad Autónoma de Querétaro, México**

El proceso creativo en el contexto académico para un estudiante de diseño con características neurodivergentes puede presentar beneficios al aplicar herramientas musicales que promuevan la concentración en el aula. Actualmente, en la carrera de diseño de la Universidad Autónoma de Querétaro se sigue un modelo estandarizado de aprendizaje directo, ante una población con perfil de aprendizaje kinestésico, se planteó el objetivo de evaluar los efectos de la música en el salón de clases, se utilizó la metodología DCU con el fin de integrar y adaptar la música según la conducta de los estudiantes y de generar e implementar herramientas adaptadas a los estudiantes con características neurodivergentes, para que así el profesorado estimule la creatividad durante el desarrollo de proyectos de diseño en clase.

## **El sentido de la alfabetización desde la mirada indígena**

**Eva Cházaro, Secretaría de Educación de Puebla, Puebla, México**

La ponencia hace parte del informe de investigación que se realizó en dos contextos territoriales americanos: México y Canadá, contando con la participación de las llamadas naciones originarias. El punto central fue comprender qué sentido tiene para los indígenas alfabetizarse en los idiomas predominantes de los países mencionados. Se definen tanto la interrogante como el concepto, desde una revisión teórica respaldada por el trabajo de campo realizado a partir del año 2005. El resultado evidencia una postura epistémica que caracteriza el pensamiento indígena en torno a la alfabetización, al estigma de ser llamado “analfabeto”, y la percepción que se tiene del mundo que le rodea desde su espacio de expresión comunal. Se hace énfasis en el sentido que cobra para los indígenas alfabetizarse en tanto relación con el cosmos, la convivencia familiar y la armonía con la naturaleza, entre otros aspectos fundamentales.

# Aprendizaje en adultos, comunitario y profesional

## **Aprendizaje para toda la vida en adultos mayores: Una experiencia en el Campus de Melilla (Universidad de Granada)**

**Carmen Enrique Mirón, Profesora Titular, Departamento de Química Inorgánica, Universidad de Granada, Melilla, España**

La UNESCO promueve la educación a lo largo de toda la vida como un derecho fundamental y una herramienta para el desarrollo sostenible. Reconoce este aprendizaje como esencial para abordar los desafíos sociales, económicos y demográficos en el mundo actual, y promueve la inclusión y el acceso equitativo a oportunidades de aprendizaje para todas las edades, incluidos los adultos mayores. El aprendizaje para toda la vida en adultos mayores alude al proceso continuo de adquirir conocimientos, habilidades y competencias a lo largo de toda la vida, incluida la edad avanzada. Está demostrado que los adultos mayores pueden adaptarse a nuevos desafíos y oportunidades de aprendizaje, incluso si se enfrentan a cambios físicos o cognitivos. La presente comunicación recoge la experiencia desarrollada en los últimos años en el Aula Permanente de Formación Abierta de la Universidad de Granada en su sede de la ciudad de Melilla. Este programa universitario dirigido a personas mayores de cincuenta años, que lleva funcionando casi tres décadas, es un claro ejemplo de la necesaria oferta formativa universitaria para el colectivo vulnerable de adultos mayores, cada vez más presente en la sociedad actual, con el que se trata de contribuir a un envejecimiento no solo activo sino también constructivo. Perfil del alumnado y oferta académica son analizados para dar respuesta al objetivo planteado, contribuir a la mejora de la situación y de las capacidades personales y sociales de sus alumnos, con una doble intención, formativa (en áreas generales y en alfabetización digital) y de atención social solidaria.

## **Experiencia de aprendizaje en el marco de la vulnerabilidad sociolaboral**

**María Luisa Pérez Conde, Profesora Ayudante Doctor, Área Teoría e Historia de la Educación, Universidad de Burgos, España**

La presente investigación es el resultado de un proyecto de intervención dirigido a adultos en situación de vulnerabilidad. En un contexto de intervención caracterizado por la exclusión, se evidencia la necesidad de implementar nuevas formas de aprendizaje que favorezcan la inserción social y laboral. Partiendo de la Investigación-Acción como metodología de investigación y desde un enfoque pedagógico lúdico, que incorpora el uso de herramientas TIC, facilitamos a participantes actuar de manera reflexiva y colectiva sobre sus dificultades, con el fin de transformarlas y contribuir a la mejora en el proceso de inserción laboral. Los resultados obtenidos muestran mejoras en la empleabilidad y motivación, así como la necesidad de incorporar nuevas formas de aprendizaje que permitan mejorar los actuales programas, y conseguir un mayor nivel de empleabilidad de las personas que participan.

# Aprendizaje en adultos, comunitario y profesional

## **De niños campesinos marginados de la educación a adultos incluidos a través de las TIC**

**Julian Adolfo Mesa Vergara, Coordinador Académico, Unidad de Capacitación Empresarial De Boyacá UNICAB Corporación Educativa, Boyacá, Colombia**

El analfabetismo total, funcional y tecnológico es una forma de exclusión de las personas adultas especialmente del grupo poblacional de campesinos en Colombia, que por diferentes circunstancias en sus vidas tuvieron que abandonar la educación formal cuando eran niños. Esto los ha mantenido excluidos y relegados aumentando su condición de pobreza personal, familiar y social, reflejada en los indicadores de pobreza multidimensional que publica el DANE anualmente en Colombia. El presente estudio muestra la forma como 40 campesinos trabajadores de la Empresa Elite Blue Arándanos, ubicada en el municipio de Sotaquirá, Boyacá, Colombia, dentro de su programa de responsabilidad social empresarial, coadyuva para que 40 de sus trabajadores analfabetos funcionales y tecnológicos alcancen la educación formal a través de una metodología 100% virtual, utilizando las TIC. El proyecto se orienta y desarrolla a través del Modelo Pedagógico innovador ECOSISTEMA UNICAB Virtual, de la institución educativa Colegio UNICAB Virtual.

# Aprendizaje en adultos, comunitario y profesional

## **Formación y desarrollo socioeducativo laboral para personas en situación de discapacidad en Costa Rica: Hacia una Costa Rica más inclusiva**

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**Bianca Paola Jiménez Cedeño, Bachillerato en Educación Especial, Diplomado en Educación Básico I y II ciclo, UNED, Limón, Costa Rica**  
**Virginia Navarro Solano, Profesora, Escuela Ciencias de la Educación, UNED, Cartago, Costa Rica**

El objetivo principal es analizar la efectividad del programa de formación y desarrollo socioeducativo laboral dirigido a personas en situación de discapacidad en Costa Rica, en sintonía con las iniciativas implementadas por el Grupo transdisciplinario, Giftedcr. La investigación se enfoca en evaluar el impacto de este programa en la inclusión de personas adultas en situación de discapacidad en los ámbitos social, educativo y laboral del país. Para llevar a cabo este estudio se empleará una metodología cualitativa. La recopilación de datos se realizará mediante entrevistas con individuos y familias que participan en este programa de formación, complementadas con encuestas para medir su progreso. Además, se llevará a cabo un análisis exhaustivo de la documentación relacionada con los programas y políticas de inclusión existentes en Costa Rica. Las implicaciones de esta investigación son significativas. Se busca identificar las mejores prácticas en la formación socio laboral para personas en situación de discapacidad, con el propósito de fomentar su inclusión efectiva en la sociedad costarricense. Los resultados obtenidos contribuirán a la mejora continua de los programas ya existentes y a la formulación de políticas más inclusivas. Además, se espera que este estudio genere conciencia tanto en la sociedad en general como en las instituciones pertinentes sobre la importancia fundamental de brindar igualdad de oportunidades a las personas en situación de discapacidad, no solo en el ámbito educativo y laboral, sino también en la esfera social. Este enfoque inclusivo y equitativo es esencial para construir una Costa Rica más justa y diversa.

## **La interculturalidad en los estilos de crianza de los 0 a los 6 meses: Importancia de la lactancia materna**

**Maricela Zúñiga Rodríguez, Profesor-investigador, Área Académica de Ciencias de la Educación, Universidad Autónoma del Estado de Hidalgo, Hidalgo, México**

En el presente estudio se describe el estado actual de las prácticas de lactancia materna en una Centro Materno Infantil en México. El objetivo es documentar las prácticas interculturales desde la educación no formal, por una parte, las de la madre y sus estilos de crianza, y por otra, desde un Centro Materno Infantil que fomenta la lactancia materna. En este estudio de corte cualitativo descriptivo se muestran las experiencias de la educación comunitaria en esta fase de vital importancia para el desarrollo humano al inicio de vida. A partir de una correcta orientación educativa hacia la práctica de la lactancia materna, se presentan resultados, sugerencias y conclusiones rescatando la importancia de la concertación de esfuerzos de los sectores y actores involucrados en este tema.

# Pedagogía y currículo

## Educar para la ciudadanía sí es mi asunto: Experiencia de plan de mejoramiento de las competencias ciudadanas en todas las áreas del currículo

A. Baumgartner, Docente de planta, Colegio General Santander IED, Secretaría de Educación de Bogotá, Distrito Capital de Bogotá, Colombia

Esta investigación acción en educación realizada en un colegio público de Bogotá buscó mejorar los desempeños de las competencias ciudadanas a través de la reflexión y enseñanza en todas las disciplinas del currículo. Su objetivo fue conocer la incidencia del liderazgo educativo en la construcción de una estrategia colaborativa para el fortalecimiento de las competencias ciudadanas en el plan de estudios. Para ello incluyeron la concertación de intenciones y concepciones de los docentes sobre formación en competencias ciudadanas, la intervención del plan de estudios a través de un plan de mejoramiento y la implementación de estrategias institucionales colaborativas. Surge de problemáticas de la comunidad educativa en la post pandemia: deserción, violencia escolar, intrafamiliar y contra los docentes, ideación e intento suicida, consumo de drogas y bajos desempeños de los estudiantes en pruebas estandarizadas. Los conceptos analizados fueron: competencias ciudadanas, liderazgo educativo y prácticas colaborativas; los emergentes: actitudes, normas, relaciones, comunicación y reflexión. Se implementaron talleres, grupos focales y entrevistas, con una unidad de análisis conformada por 223 docentes y 137 planes de estudios. Se logran identificar los conceptos sensibilizantes y categorías preliminares, priorizar y plantear el problema emergente, ajustar las mallas y los planes de área y evaluar los resultados. Las acciones implementadas fueron la reformulación institucional de las competencias ciudadanas y la consolidación del equipo de liderazgo instruccional para intervenir el plan de estudios. Se observa que estos procesos formativos en su tránsito hacia el control social o el diálogo crítico requieren de condiciones más estables en el tiempo.

# Pedagogía y currículo

## **La importancia de darle sentido al currículo académico: Educación inclusiva**

**Karla Del Carpio Ovando, Professor, Department of World Languages and Cultures, University of Northern Colorado, Colorado, United States**

El propósito de esta presentación es discutir la importancia y necesidad de darle sentido al currículo académico para incrementar las posibilidades de crear e implementar una educación inclusiva que tome en cuenta las diferencias del estudiantado. Se centrará la atención en el currículo funcional, el ordinario y el oculto con el objetivo de explicar en qué consiste cada uno y proporcionar ideas al cuerpo docente sobre cómo ponerlos en marcha en el aula. Asimismo, se enfatizan algunos de los aspectos primordiales que los/las estudiantes deben aprender en la escuela tales como el conocimiento, habilidades para socializar de forma armónica y respetuosa y la construcción de destrezas interpersonales a través de estructuras colaborativas que contribuyan a promover relaciones que permitan que cada estudiante se sienta perteneciente al grupo. Lo anterior puede ayudar a crear un sentido de comunidad en el aula y desarrollar la responsabilidad social. En la ponencia se enfatiza la necesidad de crear un marco curricular con prioridades educativas que contribuyan a humanizar en lugar de deshumanizar, a incluir en lugar de excluir. De la misma forma, se señala la relevancia de crear una microsociedad en el aula donde al estudiantado se le brinde una idea precisa del mundo real, enseñándoseles cómo funcionan las instituciones mediante la participación y la adopción de papeles activos en la sociedad. También se subraya el rol de los enfoques cooperativos en proceso de enseñanza y aprendizaje donde el estudiantado trabaja con sus compañeros con el fin de alcanzar objetivos comunes.

# Pedagogía y currículo

## **Creación de la Licenciatura en Derecho Agrario: Un reto para la Nueva Escuela Mexicana**

**Enrique Armando Gómez Lozoya, Catedrático, Preparatoria Agrícola, Universidad Autónoma Chapingo, México**

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La creación de la Licenciatura en Derecho Agrario en la Universidad Autónoma Chapingo surge de la urgente necesidad de abordar problemas fundamentales en el sector agrícola mexicano. La Licenciatura en Derecho Agrario busca formar profesionales con una visión integral y contextualizada del Derecho Agrario, capaz de responder a estos desafíos y contribuir al desarrollo sostenible y equitativo del sector agrícola. El Plan de Estudios del Programa Educativo de Licenciatura en Derecho Agrario está elaborado según los requerimientos de la Subdirección de Planes y Programas de Estudio (SPPE) de la Universidad Autónoma Chapingo establecidos en el Reglamento General para la Autorización, Aprobación y Registro de Planes y Programas de Estudio (2009), así como lo dispuesto por la SEP para obtener el Reconocimiento de Validez Oficial de Estudios. Las líneas curriculares que conforma el plan de estudios son: Fundamentos del derecho, Derecho privado, Derecho público, Derecho social, Derecho agrario, Metodología de la investigación, Ciencias sociales y derecho, Prácticas de campo, Optativas y Formación integral. Con respecto a la Nueva Escuela Mexicana (NEM), un concepto es el de excelencia, que en el artículo tercero constitucional está definido. De aquí podemos ver tres aspectos: a) El mejoramiento integral constante, b). El desarrollo del pensamiento crítico y c) La relación escuela-comunidad. Otro concepto es el de bienestar, donde se trasciende del beneficio personal al recibir la formación en la escuela a llevar estos conocimientos, habilidades, actitudes y valores a la comunidad. De forma que se logra el bienestar de la comunidad.

# Pedagogía y currículo

## Aproximaciones metodológicas al estudio de "La deriva" como estrategia pedagógica: Conversar, dibujar, registrar

**Joan Manuel Guarin Salinas, Docente, Facultad de Arquitectura, Universidad de América, Distrito Capital de Bogotá, Colombia**

Camilo Alejandro Moreno Iregui, Docente Asociado, Facultad de Arquitectura, Universidad de América, Distrito Capital de Bogotá, Colombia Los nuevos modelos de enseñanza de la arquitectura se concentran en diferentes aristas en las que se busca, principalmente, dejar atrás el aprendizaje concentrado en las actividades del aula, para permitirse explorar nuevas pedagogías activas en las que los y las estudiantes tengan una aproximación experiencial. Esta ponencia expone tres métodos de registro y evidencia del aprendizaje (paisaje sonoro, foto ensayo, y video experiencial) utilizados en el desarrollo de una estrategia basada en "La Deriva". "La Deriva" se propone como un instrumento que aprovecha el territorio como espacio de aprendizaje activo y de creación, buscando desarrollar habilidades y competencias globales como el pensamiento crítico, el trabajo colaborativo y el liderazgo. El objetivo es explorar el aprendizaje activo e interactuar directamente con el contexto real, desde una perspectiva interdisciplinaria que comprenda los aspectos sociales, físicos y culturales de los territorios de estudio. De esta manera la ciudad se vuelve un laboratorio de aprendizaje significativo, que permite a los estudiantes trascender los conocimientos técnicos del urbanismo y la arquitectura, en nuevas estrategias de aprendizaje y enseñanza, por medio de una metodología cualitativa de campo, que identifique las experiencias del derivar, revise y desarrolle el impacto del instrumento pedagógico a aplicar en las estrategias de enseñanza en arquitectura.

## La visión de sistema en el paradigma de la innovación de la praxis educativa

**Jennie Hernández, Estudiante, Universidad Popular Autónoma del Estado de Puebla, Puebla, México**

La propuesta aborda el problema de la falta de articulación de las dimensiones pedagógica-curricular, interacción de agentes y los espacios físicos en el proceso enseñanza y aprendizaje. Es un estudio longitudinal de intervención durante dos ciclos escolares que pretende innovar mi praxis educativa aportando un modelo de sistema donde la interacción coordinada de estas dimensiones logre el objetivo de la Enseñanza y Aprendizaje en los adolescentes. Se aborda este paradigma bajo la perspectiva de: Planeación pedagógica de diseño inverso. Experiencias de aprendizaje. Diseño de espacios físicos en el aula con base en interacciones entre agentes educativos. La población de estudio son estudiantes del primer grado de Bachillerato de la asignatura de Historia del Arte en una institución privada. El método utilizado es Investigación-Acción; donde se obtuvo retroalimentación de los estudiantes mediante la aplicación de instrumentos, observación y análisis a partir de los cuales se diseñan e implementan las estrategias. El modelo propuesto retoma el concepto de sistema adaptándose y ampliéndose al contexto educativo para darle significancia, y se describe como: Conjunto de dimensiones o componentes que se interrelacionan e interactúan de manera coordinada mediante un diseño pedagógico intencional para lograr el objetivo de la enseñanza y aprendizaje.

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## Entrelazando saberes: Desafíos del diseño curricular en un mundo crítico e intercultural

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Este estudio aborda la investigación interpretativa realizada en el proceso del diseño de los planes de estudio de las Escuelas Normales en el contexto educativo mexicano, destacando las aportaciones de la Nueva Escuela Mexicana, donde convergen las competencias interculturales. Se argumenta la importancia de incluir la comunalidad y fomentar el respeto a la interculturalidad en el diseño curricular, reconociendo las problemáticas encontradas durante este proceso. Además, se examina cómo se integraron los temas de equidad de género y las capacidades interculturales en el diseño de los cursos, así como los retos que enfrentaron los diseñadores curriculares. Finalmente, se discuten las habilidades y conocimientos necesarios para los docentes que participan en el diseño de cursos, resaltando la importancia de una formación que promueva la inclusión y la diversidad en el ámbito educativo.

## Entre imaginarios y representaciones sobre el concepto de lo lúdico

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Esta ponencia presenta los resultados finales del proyecto de investigación denominado "Modelos mentales sobre el concepto de lo lúdico de profesionales en formación avanzada de dos instituciones de educación superior", financiado por la Fundación Universitaria los Libertadores y el Centro de Estudios Avanzados en Niñez y Juventud-CINDE- en Bogotá (Colombia). Tuvo como objetivo general comprender los modelos mentales sobre el concepto de lo lúdico que poseían estudiantes de primer curso de dos instituciones de formación posgradual. Para ello, desde un enfoque descriptivo-exploratorio, se analizaron los resultados de la implementación de un cuestionario tipo Likert, el cual se aplicó a 139 estudiantes y estuvo compuesto de 7 preguntas generales y 5 preguntas específicas asociadas a las subcategorías: Interacciones-Sujetos, Usos-Implementaciones, Experiencias-vivencias y Conceptos. Como parte de los resultados se encuentran las representaciones asociadas a lo lúdico en un marco del reconocimiento individual y colectivo, siendo lo cultural un derrotero que determina las interacciones y expresiones de las manifestaciones. De igual manera, prevalecen en la categoría Usos-Implementaciones las relaciones de lo lúdico en contextos de enseñanza y aprendizaje.

# Pedagogía y currículo

## **Trascendencia de las experiencias de formación práctica y teórica en la construcción de la identidad docente del futuro profesorado de enseñanza media: Resultados preliminares de investigación doctoral**

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**Maite Otondo Briceño, Investigador asociado, Fundamentos de la Pedagogía, Universidad Católica de Concepción, Bío-Bío, Chile**

**María José Seckel, Académica/investigadora, Departamento de Didáctica, Universidad Católica de la Santísima Concepción, Chile**

La presente investigación tiene como propósito indagar en la construcción de la identidad docente (ID) en el profesorado en formación de enseñanza media, específicamente la transcendencia de las experiencias teóricas y práctica en el ID, en el contexto del desarrollo de la práctica profesional. El objetivo general es evaluar la trascendencia de las experiencias formativas en la universidad y en los centros educativos en la construcción de la identidad docente del futuro profesorado de enseñanza media que se encuentran realizando la práctica profesional de su formación inicial docente. La investigación se enmarca en un paradigma interpretativo. Considerando que el foco es la experiencia vivida de los participantes, el diseño de la investigación es fenomenológico hermenéutico. Se presentarán resultados de la etapa de recolección de datos obtenidos de entrevistas semiestructurada y focus group.

## **El fenómeno de la psicología sin mujeres: Análisis desde el currículum y la perspectiva de género**

**María Luisa Morales Bautista, Académica, Psicología Educativa, Universidad Nacional Autónoma de México, México**

Esta ponencia tiene como propósito realizar un análisis sobre la incorporación de la perspectiva de género al currículum de psicología de una universidad mexicana. Se parte de la idea de que el currículum es determinado en un momento histórico específico en el que se expresan ideologías, propósitos, concepciones pedagógicas, prácticas educativas etc. En ese sentido, es menester mencionar la clásica tipología de currículum: explícito y oculto, en relación con el currículum explícito se garantiza al menos en lo normativo que las instituciones de educación superior mexicanas incorporen contenidos educativos con perspectiva de género a planes y programas de estudio, esto estipulado en la Ley General de Educación Superior (2021). Ahora bien, ¿qué pasa con el currículum oculto? En ese sentido, se realizó un análisis a través de un grupo focal de 8 mujeres estudiantes de psicología que indagó cómo han vivido la incorporación de la perspectiva de género en su formación. Asimismo, se les solicitó la investigación de 3 psicólogas referentes en la historia de la psicología. Los análisis muestran que fue en 2023 cuando se incluyeron materias de género para las nuevas generaciones, por lo que para ellas estas materias son optativas, solo 3 de ellas las han cursado; por otra parte, en su mayoría han revisado psicólogos hombres en sus diversas asignaturas. En relación con la búsqueda de psicólogas mujeres explicitan que el buscador de internet las corregía cambiando psicóloga por psicólogo, arrojando en su mayoría psicólogos.

# Pedagogía y currículo

## **Educación integral en sexualidad: Momento de coyuntura curricular en el Colegio de Bachilleres**

**Lilia Abril Sánchez Hernández, Psicóloga, Universidad Nacional Autónoma de México, Distrito Federal, México**

A partir del año 2019 en México se implementó a nivel Federal una reforma educativa cuyo objetivo fue el desarrollo de un nuevo paradigma educativo y curricular que impactó de manera directa a la educación primaria, secundaria y media superior. El Colegio de Bachilleres es una institución de bachillerato público dependiente de la Secretaría de Educación Pública. Dicha institución se encuentra actualmente en un momento coyuntural de implementación de un nuevo marco curricular, hecho que trastoca la forma pre establecida de atender la educación sexual de los estudiantes del Colegio. Actualmente se encuentra en desarrollo la inclusión curricular de una asignatura denominada "Educación Integral Sexual y Género", cuestión que crea condiciones y retos pedagógicos para el profesorado encargado de la impartición de dichos contenidos ya que en contraste, la educación sexual que se abordaba en el Colegio, hasta antes de dichos cambios curriculares, consistía en actividades de divulgación fundamentalmente relacionados con métodos anticonceptivos e implicaban la asistencia voluntaria por parte de los estudiantes.

## **El llamado “encuentro de dos mundos” en la enseñanza de la historia de México y los aprendizajes significativos en educación secundaria en Chiapas**

**Marco Antonio Sánchez Daza, Catedrático, Facultad de Artes, Universidad de Ciencias y Artes de Chiapas, Chiapas, México**

La importancia de las fuentes primarias en la interpretación de la historia de la invasión de México en educación básica ha sido marginal o excluida. El presente trabajo busca mostrar la significación de ese acontecimiento entre los docentes de historia en secundaria en Chiapas y el sentido de su enseñanza-aprendizaje, dada la ruptura de ese pasado con la cosmovisión, la identidad y la construcción de la interculturalidad. La relevancia de esta investigación se relaciona con los retos del contexto pluricultural regional donde se ubica la labor docente. La educación histórica es un campo que interrelaciona la didáctica con la investigación de la historia y desarrolla un pensamiento crítico en los alumnos. La selección de fuentes y revisión de la literatura viene de mi colocación como profesor de historia en educación Normal por 30 años, de recoger experiencias de docentes en ese nivel y mi acercamiento a los procesos de investigadores de sitios, épocas, actores, comunidades y problemáticas de la región. Para ello hubo de recorrer textos clásicos y contemporáneos de la didáctica crítica, el pensamiento histórico, la educación histórica, la descolonización epistémica y la Nueva Escuela Mexicana, que orientan mi línea de investigación, como miembro del SNII. La mirada occidental de los docentes encubre hasta hoy el oscurecimiento del pasado, la formación de la identidad y el encuentro con las culturas de los pueblos originarios. La enseñanza aprendizaje de la historia en secundaria tiene retos en la formación ubicada en el campo de la educación histórica basada en fuentes primarias.

## **Mejorando el aprendizaje del piano: Estrategias y desafíos en la educación musical**

**Sara Suárez Valenzuela, Professor, Professional Conservatory of Music, Sevilla, Spain**

Este artículo se enfoca en el aprendizaje del piano, explorando las experiencias y desafíos que enfrentan los estudiantes. Su objetivo principal es establecer una sólida base científica para mejorar la educación musical en el piano a través de una revisión exhaustiva de la literatura. Se identifican tres áreas clave que influyen en este proceso educativo. En primer lugar, se destaca la importancia de los enfoques metacognitivos y emocionales en el desempeño de los jóvenes pianistas, promoviendo la reflexión y la comprensión musical. Se abordan desafíos como la repetición excesiva y la falta de planificación, factores que pueden desmotivar a los estudiantes. En segundo lugar, se reconoce la ansiedad como un obstáculo para el progreso de los estudiantes de piano y su rendimiento. Se enfatiza la necesidad de implementar estrategias de regulación emocional para abordar este desafío. La tercera área de influencia corresponde a las relaciones entre profesores y estudiantes, ya que son fundamentales para el desarrollo académico y social de los alumnos. Se recomienda un enfoque basado en el diálogo que promueva la comunicación abierta y conecte a los estudiantes con sus experiencias. En resumen, este enfoque educativo integral, que incorpora estrategias cognitivas, metacognitivas y de gestión de recursos, ha tenido éxito en el desarrollo de habilidades de práctica más efectivas y en el fortalecimiento de la formación musical de los estudiantes. Esto demuestra la relevancia y el éxito de estas estrategias en la enseñanza del piano y la educación musical en general.

# Pedagogía y currículo

## **La orientación vocacional en el colegio de bachilleres de México: De los impases de la estandarización de la enseñanza al potencial de las formas de orientar en libertad**

**Moisés Torres López, Estudiante, Doctorado en Pedagogía, Universidad Nacional Autónoma de México, Distrito Federal, México**

La presente ponencia da cuenta de una parte de la revisión teórica y de campo de la investigación en curso que lleva como título "La orientación en el Colegio de Bachilleres, coordenadas para ubicar un terreno ignoto". Dicho trabajo de investigación se realiza como parte del Doctorado en Pedagogía de la Universidad Nacional Autónoma de México. En este texto se describe al subsistema de educación media superior, Colegio de Bachilleres, así como que en dicha institución educativa la orientación vocacional hasta el año 2015 era un servicio optativo para los estudiantes en donde los orientadores brindaban talleres, pláticas y asesorías para transformarse posteriormente en una asignatura obligatoria dentro del mapa curricular. Dicha transformación implicó para los maestros, por un lado, la enseñanza de temas del programa de estudios influidos por el paradigma de la psicometría y la psicología conductual que contemplan a la orientación vocacional como un proceso lineal enfocado en la correcta elección de carrera y por otro lado también ha potenciado la libertad de los docentes para abordar la orientación vocacional introduciendo temas y actividades pedagógicas que contemplan: la libertad y la responsabilidad personal, la elección crítica, las habilidades socioemocionales, el proyecto de vida y la diversidad de opciones a futuro que contemplen caminos alternos a la continuación de estudios universitarios.

# Tecnologías en el aprendizaje

## Diseño y validación de Escala de Autoeficacia en Competencias Digitales de Estudiantes de Educación Superior

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La formación de competencias digitales en estudiantes es uno de los objetivos principales en los sistemas educativos del mundo por su impacto en la competitividad, la innovación y la capacidad de adaptación en el ámbito laboral cambiante. El presente estudio tiene como objetivo presentar las evidencias de diseño y validez de contenido de dos subescalas para medir dos de los componentes principales de las competencias digitales de estudiantes de Educación Media Superior y Superior: (1) Búsqueda y gestión de información y datos, (2) Interacción a través tecnologías de la información. Para ello integraron dos comités de expertos en el campo de las competencias digitales, uno para el diseño de las subescalas y otro para la validación. Como producto se construyeron 88 ítems organizados en las dos subescalas. Para la validación de los ítems se implementó el Modelo de Evaluación del Diseño Universal (MEDU) y se consideraron los criterios de relevancia, claridad, simplicidad y precisión para la validación de contenido. Consecutivamente, se calculó el porcentaje de acuerdo entre jueces y el Índice de Validez de Contenido (IVC) de Aiken. Como resultado se obtuvieron IVC adecuados en las tres subescalas y en la mayoría de los ítems. Con base en las evidencias se puede concluir que las subescalas e ítems bajo estudio cumplen con los criterios de calidad establecidos. Se recomienda corregir el diseño de los ítems con puntuaciones bajas en los IVC y realizar un piloteo empírico para probar la confiabilidad y propiedades psicométricas del instrumento.

# Tecnologías en el aprendizaje

## **Relación entre la motivación y autodidactismo en estudiantes de nivel medio superior en México**

**Daniel Bautista Ledesma, Estudiante, Maestría, Universidad Nacional Autónoma de México, México**

El aprendizaje autorregulado se caracteriza por la relación entre las formas de aprendizaje independientes y efectivas que implican elementos como la metacognición, motivación intrínseca y acción estratégica. Ha sido ampliamente estudiada la relación presente entre la motivación y el rendimiento académico para identificar los factores que favorecen el desempeño académico. Es estudio se realizó con una muestra de 109 estudiantes de nivel medio superior de instituciones públicas y privadas del área Metropolitana del Valle de México, utilizando una Escala construida tomando como base la Escala de Motivación Escolar y la Escala de Evaluación de la Autorregulación del Aprendizaje a partir de Textos. Se realizó un análisis de los datos utilizando la correlación de Pearson para conocer la relación entre el autodidactismo y la motivación, la cual fue de 68.8%, con un nivel de significancia del 0.01. Lo que refiere que los estudiantes encuentran interés en aprender de manera independiente.

## **Curso virtual automatizado y gamificado que se ajusta al ritmo de aprendizaje del estudiante**

**Sergio Andrés Cadena Bautista, Representante Legal, Unidad de Capacitación Empresarial de Boyacá UNICAB Corporación Educativa, Boyacá, Colombia**

El aprendizaje es un proceso dinámico y activo que, al ser integrado en un ambiente virtual, permite implementar estrategias pedagógicas enriquecidas por lo tecnológico. A continuación, se presenta el diseño e implementación de una secuencia didáctica automatizada basada en habilidades de pensamiento dentro de un curso virtual. El resultado final es un entorno de aprendizaje gamificado que se adapta a las necesidades individuales de cada estudiante, considerando sus tiempos, espacios y estilos de aprendizaje. Este producto no solo incorpora herramientas tecnológicas de gamificación para automatizar el flujo y avance dentro del curso, sino que también integra habilidades de pensamiento por niveles, como la justificación del progreso, mediante distintos grados de complejidad para el desarrollo de las mismas.

# Tecnologías en el aprendizaje

## Guía Metodológica de gamificación para la enseñanza en programas de Construcción y afines

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La investigación plantea una metodología para desarrollar un juego serio en línea, que pretende ayudar a mejorar la transferencia y puesta en común de aprendizajes, en un proceso educativo que es desarrollado entre grupos de estudiantes de pregrado de carreras afines a la construcción, que permita la evaluación de conocimientos adquiridos y reforzar el aprendizaje de sistemas y procesos constructivos y cantidades de obra, de las etapas de estructura, cerramientos y acabados en edificaciones, mejorando el trabajo en equipo y la capacidad de análisis. La temática planteada se centra en los tres grades etapas de procesos de la obra como estructura, cerramientos y acabados. Esto les permitirá a los estudiantes interactuar en escenarios similares a los propios de obras de edificación, en lo relacionado a los procesos y sistemas constructivos. El uso de juegos apoya el proceso de enseñanza/aprendizaje, como factor clave en un escenario en el que se interactúa desde distintos niveles de conocimiento, ofreciendo la posibilidad de mejorar la motivación de los actores, así como la experiencia de los facilitadores del juego y, a la larga, una mejora en los resultados de transferencia de conocimiento.

## Infancia e identidad digital: Demandas educativas y estrategias de intervención en el contexto colombiano

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En la era tecnológica, el hablar de identidad digital se ha convertido en asunto de primera categoría. Las transformaciones vertiginosas de una sociedad que avanza al ritmo de un mundo globalizado demanda habilidades para afrontar los retos de un entorno cada vez más digitalizado. Por ello, la educación ahora asume la responsabilidad formativa de actualización de prácticas pedagógicas para las nuevas generaciones de alumnos hiperconectados que, desde edades cada vez más tempranas, van desarrollando su identidad digital. El presente trabajo asume el reto de presentar una propuesta de intervención en identidad digital dirigida al ciclo de educación inicial de cinco a seis años de edad, argumentando la relevancia del ámbito digital como realidad ineludible de la construcción de identidad en la infancia del siglo XXI, orientando sus acciones pedagógicas desde los lineamientos curriculares propios de la etapa a partir de metodologías activas de aprendizaje y la pertinencia de los contenidos para el logro de los objetivos formativos de este ciclo educativo. La propuesta acoge los aspectos relevantes de la formación en identidad digital en edad prescolar y proporciona aportes teórico-prácticos que respaldan el valor de la temática para este alumnado, constituyendo una valiosa herramienta para el abordaje conceptual de temas relacionados.

# Tecnologías en el aprendizaje

## **La relación entre interactividad y evasión en modelos de aprendizaje mediados por tecnologías digitales**

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La compleja relación entre la interactividad y el fenómeno de la deserción de estudiantes en el contexto de entornos digitales de aprendizaje es el objeto de investigación de este trabajo. La creciente influencia de las tecnologías digitales en la educación, especialmente en un contexto de proliferación de Ambientes Virtuales de Aprendizaje (AVA), cursos en línea y otras formas similares de entornos educativos, se ve desde la expectativa de mejorar el proceso de aprendizaje hasta la esperanza de un inicio de ruptura de los paradigmas educativos que marcan los procesos de enseñanza y aprendizaje. El estudio busca comprender si la interactividad juega un papel relevante en la deserción de estudiantes y explora la relación entre estos dos elementos. La importancia de la investigación radica en la preocupante cuestión de la deserción de estudiantes, un problema que persiste en la educación tradicional y se manifiesta en igual o mayor medida en las experiencias digitales. El artículo detalla la metodología de revisión sistemática de publicaciones, proporcionando resultados globales y también un enfoque en la realidad brasileña a través de tendencias temporales, geográficas y temáticas que culminan con la evidencia de los elementos esenciales del aprendizaje en el contexto digital. Las conclusiones del artículo establecen comparaciones entre la deserción en experiencias educativas mediadas por tecnología en comparación con las propuestas tradicionales, destacando la complejidad de este fenómeno y la necesidad de más investigaciones para comprender cómo elementos como los que involucran la interactividad pueden contribuir a reducir el desinterés y la deserción.

# Tecnologías en el aprendizaje

## **Una propuesta de clase participativa en la educación superior utilizando la herramienta digital Mentimeter**

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La incorporación de las tecnologías en la educación superior ha supuesto una serie de ventajas entre las que destacan el aumento de la motivación y la autonomía del estudiantado y la mejora del proceso de autoevaluación y del seguimiento por parte del profesorado. En los últimos años, el desarrollo de diferentes herramientas digitales ha permitido que el formato de lección magistral utilizado frecuentemente en la educación superior se transforme en clases más participativas y con mayor interactividad. El objetivo de este estudio era desarrollar y poner a prueba el uso de la herramienta digital Mentimeter durante las clases en el grado en psicología. La muestra estaba formada por 64 estudiantes que participaron en las clases de seminario de la asignatura PS1034 Evaluación e Intervención Clínica. Todos realizaron el ejercicio práctico con Mentimeter y respondieron a un cuestionario de opinión cuantitativo. A nivel cualitativo, también se recogieron diferentes comentarios y sugerencias de los participantes. La mayoría del alumnado reportó que la práctica les motivó a participar en clase, la encontraron útil para poner en práctica los conocimientos teóricos de la asignatura, se mostraron satisfechos, la recomendarían a otros estudiantes y les gustaría que se aplicara en otros seminarios de la asignatura. Los resultados parecen indicar que la incorporación de nuevas metodologías activas que resulten atractivas para el estudiantado podría aumentar su satisfacción con las clases.

# Tecnologías en el aprendizaje

## Percepción de la Competencia Digital Docente en profesores universitarios

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Actualmente, el proceso de enseñanza-aprendizaje requiere del uso de la tecnología para el alcance de los objetivos y, de la capacitación docente en el uso de la misma. La formación de la Competencia Digital Docente incluye tanto el conocimiento como la percepción de dominio de los recursos tecnológicos. El objetivo del estudio fue analizar la percepción de logro de la Competencia Digital Docente en profesores de la Universidad Tamaulipecas en Reynosa (Tamaulipas, México) tras un taller de capacitación en tecnología educativa. La metodología fue mixta, empleando como instrumentos, el Cuestionario para medir la Competencia Digital Docente, desarrollado por la Universidad Internacional de la Rioja en 2018 y el Cuestionario de Valoración Plan DIGITAL, desarrollado como parte de la investigación, ambos basados en el Marco de Referencia de la Competencia Digital Docente. Participaron los 46 docentes que cursaron el taller mencionado. Al finalizar la capacitación los docentes se distribuyeron de la siguiente manera: el 24% en el nivel básico, el 57% en el intermedio y el 19% en el avanzado, mientras que su autopercepción arrojó una ubicación del 44%, 41% y 15% en los niveles anteriormente señalados, respectivamente. Este resultado refleja que los docentes se perciben por debajo de su dominio real. Las experiencias recogidas señalan que los docentes requieren mayor tiempo de práctica y seguimiento para reforzar su percepción de dominio, por lo que se recomienda continuar su capacitación como un proceso continuo a largo plazo combinando actividades para reforzar la autovaloración sobre el dominio de los recursos tecnológicos.

## Alfabetización en salud en la era digital: Desafíos y oportunidades

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La alfabetización en salud en la era digital se presenta como un desafío esencial en un mundo donde la información médica está al alcance de un clic y las tecnologías transforman la atención sanitaria. Este fenómeno, conocido como alfabetización en salud, enfrenta la necesidad de comprender, evaluar y aplicar información de manera efectiva. La convergencia de salud y tecnología plantea nuevos desafíos, pero también ofrece oportunidades prometedoras. Este estudio explora de manera reflexiva la alfabetización en salud en la era digital observando y considerando como influye y como es el impacto tecnológico en la forma de obtener información y en la comunicación.

# Tecnologías en el aprendizaje

## Un esquema de las estrategias de aprendizaje de ChatGPT en la adquisición de segundas lenguas

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La IA ha tenido un impacto considerable en nuestras acciones cotidianas, ya que se considera la pieza clave de la automatización de servicios. De entre las últimas tecnologías puestas en campo, el lanzamiento de ChatGPT ha causado furor por sus conversaciones más naturales, por tener una memoria de contexto más extensa, por su creatividad y por su versión gratuita. Por ello, en el presente capítulo se mostrarán las aplicaciones que ofrece ChatGPT en el aprendizaje de idiomas. Concretamente, se ofrecerá una taxonomía de las estrategias detectadas durante la preparación de la prueba de certificación oficial de la lengua italiana nivel B2. A tal efecto, se han tomado como referencia las competencias lingüísticas requeridas para la prueba oficial de dicho nivel (CELI 3) de la Università per Stranieri di Perugia. Entre ellas, nos hemos centrado por cuestión de espacio en las competencias lingüísticas y en las de producción oral y escrita.

## Nativos digitales, docentes digitales: La tecnología digital en la formación del profesorado de Cataluña

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En la era digital actual, la integración de las tecnologías digitales en la educación se ha convertido en una necesidad imperiosa. La formación del profesorado en el uso de estas tecnologías es fundamental para garantizar una enseñanza de calidad en los grados de primaria e infantil. Para conocer las percepciones del profesorado utilizamos la herramienta SELFIE for Teachers que permite a los profesores reflexionar sobre su uso de las tecnologías digitales en el aula, con el fin de identificar áreas de mejora en sus competencias digitales y recibir recomendaciones personalizadas para su desarrollo profesional. Este cuestionario se basa en el Marco Europeo de Competencia Digital para Educadores (DigCompEdu) y se divide en seis áreas clave. De acuerdo con el contexto anterior, es que el objetivo de este artículo es analizar las percepciones del profesorado en formación sobre el uso de tecnologías digitales en los grados de primaria e infantil en universidades de Cataluña, España. Se utilizó la herramienta SELFIE for Teachers con 79 estudiantes de dos universidades, una pública y otra privada. Se realizó un análisis estadístico descriptivo de los datos para cada área del Marco DigCompEdu. Los resultados muestran una percepción positiva del uso de las TIC en el aula, aunque se identifican áreas de mejora en la creación de contenidos, la evaluación con TIC y la integración curricular. El estudio aporta información valiosa para mejorar la formación del profesorado y promover su integración en la enseñanza.

# Tecnologías en el aprendizaje

## **Uso de la hoja de cálculo de Google para el desarrollo del pensamiento lógico-matemático en estudiantes de grado 8°**

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La presente propuesta de investigación se enfoca en el fortalecimiento de la enseñanza de la hoja de cálculo de Google en estudiantes de grado 8° de la institución educativa Villa Cielo en Montería, en el departamento de Córdoba en Colombia. El objetivo principal es desarrollar una estrategia de enseñanza en la cual la hoja de cálculo de Google se utilice como una herramienta de apoyo fomentar el desarrollo del pensamiento lógico matemático en estudiantes de grado 8°. De esta manera, se busca diseñar y evaluar estrategias didácticas que promuevan un aprendizaje efectivo utilizando esta herramienta tecnológica. Para cumplir con los objetivos planteados se recopilaron datos sobre el rendimiento académico de los estudiantes y su nivel de desarrollo de habilidades lógico-matemáticas antes y después de la intervención. Además, se realizaron observaciones cualitativas para evaluar la efectividad de las estrategias implementadas. Los resultados preliminares indican un aumento en el rendimiento académico y una mejora en la comprensión de conceptos matemáticos complejos tales como gracias al uso de esta herramienta tecnológica. Los hallazgos de este estudio respaldan la necesidad de integrar herramientas tecnológicas como la hoja de cálculo de Google en el currículo educativo para mejorar las habilidades de los estudiantes en el área de matemáticas y promover su competencia digital. En ese sentido, es preciso continuar explorando y desarrollando estrategias didácticas que aprovechen al máximo el potencial de estas herramientas en el proceso de enseñanza-aprendizaje.

# Tecnologías en el aprendizaje

## **Influencia de la tecnología en la enseñanza y el aprendizaje de las matemáticas durante el confinamiento por COVID-19 en Andorra**

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La pandemia COVID-19 y, especialmente el confinamiento, marcó un antes y un después en los centros educativos. Continuar el curso virtualmente provocó la necesidad de adaptarse de forma súbita al uso de diferentes tecnologías como recurso para poder aprender y enseñar en línea. En el caso de las matemáticas, se acrecentó la dificultad inherente de la materia, como reportan diferentes estudios realizados alrededor del mundo durante la pandemia. En nuestro caso, desde 2021 estamos investigando lo sucedido en la Escuela Andorrana de Bachillerato. Partiendo de una metodología mixta basada en cuestionarios y entrevistas en profundidad a profesores y estudiantes, estamos analizando el proceso de adaptación metodológico a la enseñanza y el aprendizaje de las matemáticas durante el confinamiento y la influencia que tuvo la tecnología en la mencionada adaptación. En esta comunicación presentamos los resultados derivados de las entrevistas realizadas, comparando la visión del profesorado y del alumnado, como parte de ambas caras de una misma moneda. El análisis confirma que la situación percibida por docentes y discípulos no fue la misma, y que incluso, comparando las respuestas entre profesores o entre estudiantes, el modo en que cada uno de ellos vivió el confinamiento y las dificultades que enfrentaron fueron distintas. Esto justifica la necesidad de completar los resultados de los cuestionarios con los de las entrevistas, para comprender en profundidad lo sucedido.

# Tecnologías en el aprendizaje

## **Percepción del uso de aplicaciones de dispositivos móviles en cursos virtuales por estudiantes universitarios de las carreras de idioma inglés como lengua extranjera (EFL)**

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El uso de Apps móviles para el aprendizaje del inglés como lengua extranjera (EFL) se ha convertido en una experiencia positiva y de moda entre los estudiantes universitarios en la actualidad. El objetivo de esta investigación fue identificar si el uso de Apps móviles para el aprendizaje del inglés difiere del nivel académico y si depende del género de los estudiantes en cursos de educación virtual. Se aplicó una investigación de tipo descriptivo, considerando que no hay evidencia de otras investigaciones de la misma naturaleza desarrolladas en el contexto salvadoreño. La muestra de participantes estuvo conformada por 199 estudiantes, cursando la licenciatura en inglés de una institución de educación superior ubicada en la región oriental de El Salvador. Los resultados mostraron que existe significación estadística sobre el uso de Apps móviles en relación con el nivel académico de los estudiantes. Además, se determinó que el uso de Apps para el aprendizaje del inglés no depende del género. Como conclusión, estos resultados revelan que los estudiantes son hábiles en el manejo de la tecnología para su propia preparación académica, lo que se evidencia en su competencia digital en el aprendizaje móvil (m-learning). No obstante, se sugiere investigar para conocer cómo el uso de dichas Apps les ayuda a satisfacer sus propias necesidades de aprendizaje.

## **La IA como generadora de textos expositivo-argumentativos: Una herramienta para mejorar la comprensión lectora del alumnado de Educación Secundaria**

**César Pascual Romero Casanova, Profesor, Universidad de Alicante, España**

La aplicación de la IA en la sociedad tiene múltiples vertientes, y es el ámbito educativo uno de los más influidos por su irrupción. Concretamente, su uso puede facilitar y mejorar las prácticas educativas, por ejemplo, con la generación de textos. Este artículo expone una investigación empírica en la que se analiza la capacidad de la IA para crear textos expositivo-argumentativos adecuados para desarrollar la comprensión lectora del alumnado. Este estudio demuestra las posibilidades que ofrece la IA de escribir textos específicamente diseñados para las necesidades educativas del alumnado de un curso determinado.

# Tecnologías en el aprendizaje

## **Wikipedia como lugar de producción, circulación y recepción de saber: Una lectura desde la historia cultural**

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Wikipedia como lugar de producción, circulación y recepción de saber parte de la incógnita de reflexionar en torno a qué saberes se producen en la enciclopedia libre en español y qué prácticas se despliegan de ello, a partir de una lectura desde la microhistoria de la mano de autoras y autores herederos principalmente de la historia cultural, que se preguntan por la manufactura del conocimiento visto como un campo de prácticas culturales y de reproducción cultural, para dar cuenta de formas históricamente construidas de razón que enmarcan, disciplinan y ordenan nuestra acción y participación en el mundo. Asimismo, esta investigación se circunscribe en el interés sobre la construcción del conocimiento moderno para explicar el modo en que diversas empresas de conocimiento se construyeron en una intersección local-global. Para responder incógnitas tales como: ¿Qué significa producir conocimientos en y desde un lugar particular? ¿De qué manera las redes académicas y profesionales contribuyen a transferir una trama de conocimientos entre diferentes comunidades intelectuales? ¿De qué manera se produce. Es por ello que me interesa indagar dentro del universo de estudio como lo es Wikipedia y su comunidad ¿Qué saberes y conocimientos se producen? ¿Quiénes lo producen y en qué escenarios? ¿De qué manera se pone en circulación? ¿Cuál es el impacto educativo y formativo que ha tenido ese saber? Con la finalidad de realizar una lectura histórica de estos nuevos fenómenos producto de la tecnología.

# Tecnologías en el aprendizaje

## Estrategias de gamificación y comprensión lectora de los estudiantes de la Universidad Nacional de Trujillo

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"La gamificación es una técnica de aprendizaje que traslada todo el potencial de los juegos al ámbito educativo para mejorar los resultados de los alumnos en clase" (UNIR, 2020). Por ende, bajo este contexto, la gamificación juega un rol importante, ya que permite dinamizar el proceso de aprendizaje a nivel virtual y presencial y, sobre todo mejorar los niveles de comprensión lectora, puesto que según la Prueba PISA (2022), el Perú ocupa el puesto 64 de 77 países, siendo Singapur el que lidera el ranking. Por ello, en aras de aportar al desarrollo de la educación, se realizó esta investigación para evaluar la relación entre el uso de las estrategias de gamificación y el nivel de comprensión lectora de los estudiantes de la Universidad Nacional de Trujillo. Para ello, se aplicó un enfoque cuantitativo y por el diseño, correlacional. El método utilizado fue lógico-inductivo y se realizó un muestreo no probabilístico por conveniencia. Además, la técnica de recolección de datos fue la encuesta y el instrumento de recolección, el cuestionario, el cual se aplicó a los estudiantes, concluyendo que existe relación significativa ( $\text{sig}<0.01$ ), directa alta, entre la gamificación y la comprensión lectora de los estudiantes de una institución de educación superior, con un coeficiente Rho de Spearman de 0.90568 o 90.568%. lo cual indica que a mayor uso de estrategias de gamificación es mayor el nivel de comprensión lectora. Por tanto, es trascendente que los docentes usen estas herramientas en aras de no impartir clases tradicionales y propiciar procesos de comprensión.

# Medición y evaluación

## Caracterización de la escritura creativa de los trabajos de composición de los alumnos de preparatoria

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Esta investigación tiene por objetivo caracterizar la escritura creativa de las y los estudiantes de segundo semestre de bachillerato, mediante el uso de una rúbrica que evalúa indicadores de la escritura y la creatividad. El proceso se fundamentó en las teorías de la creatividad de Torrance y Guilford en cuanto a fluidez, originalidad flexibilidad; en el de la imaginación o la fantasía con las teorías de Vygotsky y Frugoni; las habilidades de la escritura en cuanto a coherencia y cohesión; el pintoresquismo de Logan y Logan; por último, en la estructura de cuento que ayudaron a caracterizar la escritura creativa de los educandos. El estudio reporta un trabajo de carácter exploratorio con una metodología cualitativa, se elaboró una rúbrica para el análisis de la escritura creativa, que fue validada por medio del juicio de expertos. Se eligieron 31 cuentos a través del muestreo por conveniencia, a partir de los proyectos finales de la materia de Taller de Lectura y Redacción 2 del semestre enero-junio 2019 de la preparatoria del Campus Américas de la Universidad De La Salle Bajío, ubicada en León, Guanajuato. Se observó que los cuentos contaron con altos índices de metáforas, imaginación o fantasía y la estructura de cuento; en menor medida, cuentan con flexibilidad, fluidez, pintoresquismo y cohesión esto por falta de formación escrita y habilidad de descripción.

# Medición y evaluación

## **Impacto de la crisis económica y la pandemia en la desigualdad educativa en España**

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Esta investigación analiza la creciente desigualdad educativa en España desde la crisis económica de 2008 y su agravamiento por la pandemia del COVID-19. Destaca cómo las desigualdades provocadas a raíz de estas crisis afectan la educación, subrayando la importancia de evaluar esta evolución mediante los informes PISA recientes. En cuanto a la metodología, se realizó un análisis cuantitativo de los datos de PISA de 2009 a 2022, enfocándose en la brecha de resultados entre centros educativos públicos y privados en Matemáticas, Ciencias y Lectura. La investigación compara esta evolución en España con la OCDE y la Unión Europea. Los principales resultados muestran un aumento de la desigualdad entre centros públicos y privados de España en los últimos años, especialmente desde 2018, e indican una tendencia preocupante de aumento de la desigualdad educativa en este país. La pandemia ha exacerbado las desigualdades preexistentes, afectando más a España que a otros territorios europeos o de la OCDE. Los hallazgos confirman que la clase social y el nivel cultural de las familias son factores determinantes en la desigualdad educativa, y que la titularidad del centro está correlacionada con el porcentaje de estudiantes inmigrantes y los resultados académicos. En conclusión, la creciente brecha entre centros públicos y privados en España es alarmante y requiere intervenciones políticas y sociales urgentes. La pandemia ha revertido los avances educativos previos, destacando la necesidad de políticas públicas que promuevan la equidad y reduzcan la desigualdad educativa.

# Medición y evaluación

## **La prueba Saber Pro en Colombia: Factores asociados a su desempeño**

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En Colombia, la prueba estandarizada para profesionales denominada Saber Pro es un insumo nacional que permite la medición de competencias básicas para los egresados de los programas universitarios del país. En este sentido, los resultados que la prueba genera permiten análisis que resultan de utilidad para la mejora de procesos internos en las instituciones y para analizar las variables asociadas al rendimiento y sus particularidades. Así pues, esta investigación consistió en un ejercicio de análisis, cuyo objetivo fue evidenciar la relación entre los resultados de la Prueba Saber Pro de los estudiantes de la Universidad EAN durante el periodo de 2016 a 2021 y la modalidad de formación, el género y la facultad a la que pertenecen. Para ello, se consideró como participantes del estudio a los 6269 estudiantes que presentaron la prueba en el lapso mencionado y se aplicó un análisis correlacional de variables. A partir del estudio, pudo evidenciarse que hay diferencias significativas en las variables género, modalidad y facultad, y que la puntuación obtenida en lectura crítica y competencias ciudadanas está relacionada con el puntaje global, como un predictor del mismo. Adicionalmente, en contraste con la literatura asociada al estudio, las diferencias de género no benefician a los hombres, pero sí se reafirma la prevalencia de la modalidad presencial y la fortaleza de competencias asociadas a la formación específica de los estudiantes, más que la transversal.

# Medición y evaluación

## Propiedades psicométricas de la Escala de Autoeficacia en Habilidades Socioemocionales traducida al español y adaptada para estudiantes de Educación Media Superior (EMS)

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El propósito del estudio analizar las propiedades psicométricas de la Escala de Autoeficacia en Habilidades Socioemocionales traducida al español (EA-HSE-vE) y adaptada para estudiantes de Educación Media Superior (EMS). Para ello, se analizaron las respuestas de 203 alumnos inscritos en una escuela de EMS en Tijuana, Baja California, México. La muestra de participantes se conformó por 111 mujeres y 92 hombres; 89 alumnos de primer semestre, 63 de tercer semestre y 51 de quinto semestre. Primero, se realizaron los análisis preliminares (confiabilidad, normalidad, linealidad y homocedasticidad) y consecutivamente el Análisis Factorial Confirmatorio (AFC). Para el AFC se conservaron 28 ítems de la EA-HSE-vE que cumplieron con los criterios preliminares. El modelo sometido a prueba constó de 4 factores: (F1) Conexión, (F2) Influencia, (F3) Consciencia y (F4) Consideración. Como resultado, se obtuvieron índices de confiabilidad aceptables ( $\alpha = 0.87$ ,  $\alpha_s = 0.87$ ,  $\omega = 0.90$ ) y correlaciones entre los factores que van de 0.13 a 0.48. Asimismo, se obtuvieron índices de ajuste aceptables ( $\chi^2 = 424.257$ ,  $gl = 344$ ,  $p = .002$ ,  $CFI = .981$ ,  $TLI = .979$ ,  $GFI = .949$ ,  $NFI = .907$ ,  $RMSEA = .034$  [ $IC\ 95\% = 0.021 - 0.044$ ],  $SRMR = .077$ ). En conclusión, la EA-HSE-vE presenta propiedades psicométricas adecuadas para las interpretaciones y propósitos de evaluación e investigación educativa con alumnos de EMS. Se recomienda para futuros estudios obtener evidencias de validez de constructo de asociación con otras variables y realizar análisis de invarianza factorial y estudios comparativos entre grupos por sexo, edad y semestre.

# Medición y evaluación

## **Instrumento para evaluar la implementación de Actuaciones Educativas de Éxito en Comunidades de Aprendizaje: Autoevaluación y heteroevaluación**

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**Silvia Abad Merino, Profesora, Universidad de Córdoba, Córdoba, España**

La siguiente contribución presenta los resultados iniciales del proyecto de investigación "Impacto de las Actuaciones Educativas, de la Red Andaluza de Escuelas Comunidades de Aprendizaje, sobre el Rendimiento y la Convivencia Escolar (Ministerio de Ciencia e Innovación de España, PID2021-122302N)". Consiste en la validación de un cuestionario de recogida de información sobre la realidad de los centros educativos transformados en Comunidades de Aprendizaje (CdA). Este instrumento incluye información sobre el modo en que se están implementando las Actuaciones Educativas de Éxito (AEE) que se desarrollan en las CdA. Contar con un instrumento validado permitirá responder la necesidad manifestada por los centros educativos, de los diferentes países, de poseer un instrumento que les permita revisar e identificar los aspectos a mejorar en la implementación de este modo de organizar las escuelas, pudiendo reflexionar de forma específica, sobre su propio proceso de transformación en CdA y desarrollar un conocimiento más amplio sobre cómo están desarrollando su labor educativa. Actualmente se está implementando la rejilla en las CdA de Andalucía, tratándose de uno de los elementos clave que constituyen la evaluación inicial sobre la evolución de las escuelas en su proceso de implementación y desarrollo de las AEE. Concretamente, los datos devuelven una fotografía de cada centro en cuanto a: (a) organización del centro (tipo y número de comisiones mixtas y su composición, liderazgo); (b) AEE implementadas; (c) tipo y grado de participación de la comunidad, etc, así como otros aspectos que pueden ayudar a identificar el modo de trabajo de estos centros.

# Medición y evaluación

## **Impacto de Grupos Interactivos y Tertulias Dialógicas en el rendimiento académico: Interacciones que favorecen el aprendizaje**

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**Virginia Sánchez Jiménez**

**José Joaquín Caldera Ortiz, Director, Centro de Educación Permanente Polígono Sur, Sevilla, España**

Esta contribución presenta parte de los resultados de una investigación más amplia. En concreto aquellos relativos a analizar el impacto que los Grupos Interactivos (GI) y las Tertulias Literarias Dialógicas (TLD) han tenido en el rendimiento académico del alumnado de un centro educativo transformado en Comunidad de Aprendizaje (CdA). Se ha analizado si la implementación de estas dos Actuaciones Educativas de Éxito ha influido, de manera significativa y a lo largo del tiempo, en las calificaciones del alumnado para cada una de las materias de las distintas etapas educativas (Educación Infantil, Primaria y Secundaria). Se ha elaborado un diseño cuasi experimental con dos grupos (grupo experimental (GE; 220 estudiantes), que ha desarrollado durante la intervención GI y TLD y grupo de comparación (GC; 219 estudiantes) y tres tiempos de evaluación (pre-test, post-test (de septiembre de 2015 a junio de 2016) y medida de seguimiento (junio de 2017) con el que se han podido observar los efectos del proyecto de CdA a lo largo del tiempo. Los resultados muestran el impacto positivo de la implementación de estas actuaciones. El alumnado del GE mostró mejoras significativas en sus resultados académicos en el tiempo. Además esta mejora se reflejó en todas las materias de las tres etapas educativas analizadas, siendo significativa en muchas de las asignaturas. Esto respalda la efectividad de las GI y TLD como estrategias pedagógicas para fomentar un progreso significativo en el aprendizaje, en la misma línea que las aportaciones de trabajos previos aunque de corte más cualitativo.

## **Modelo de retroalimentación para la Enseñanza y Aprendizaje de las Ciencias: El caso de la Estadística**

**Patricia Rojas, Docente- Investigador, Universidad de Bío-Bío, Chile**

Se han documentado dificultades de diversa índole al momento de desarrollar el proceso de Enseñanza y Aprendizaje de la Estadística en carreras universitarias. Por ejemplo, Gonzalez y Moreno manifiestan errores en su enseñanza, Carreño y Mayorga manifiestan la necesidad de innovar en el uso de metodologías. Surge así la necesidad de realizar un estudio que permita desarrollar las competencias que permitan resolver problemas contextuales y logren, mediante el uso de materiales diversos, aprender de una manera distinta, debido a que por mucho tiempo los errores identificados posteriormente a las evaluaciones no se utilizan para cambiar, mejorar o crear nuevos aprendizajes. Es en ese punto donde toma vigor el concepto de Retroalimentación. Se presenta una propuesta para la Enseñanza y Aprendizaje de las Ciencias, que diferencia la calificación de la evaluación y que propone mediante el estudio de casos contextuales la enseñanza y el Aprendizaje de las Ciencias.

# Medición y evaluación

## **Escala para la Detección de la Dislexia (EDDIX) en Educación Primaria: Elaboración y validación**

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La dislexia es el trastorno del aprendizaje con mayor repercusión en la población escolar, 5-15%. Para su evaluación, las pruebas en España son muy escasas. Por ello se ha confeccionado y validado una escala de detección rápida de la dislexia en niños de 6 a 12 años, para los maestros de Primaria. El estudio realizado es exploratorio-descriptivo. En la validación se empleó el juicio de expertos y se llevó a cabo el pilotaje, obteniéndose la primera versión. Se aplicó la escala a 288 sujetos en la Comunidad de Madrid. Los datos fueron analizados con SPSS (28.0), Jamovi (2.3.13), R (4.2.1.) y JASP (0.16.4.). Se realizó un Análisis Exploratorio de Datos. El análisis univariante (Kolmogorov-Smirnov con la corrección de Lilliefors) reportó que la distribución no sigue la normalidad. Se calcularon correlaciones policóricas, reduciéndose el número de ítems a 29 de los 37 propuestos. En el análisis multivariante, se calculó la normalidad multivariada (Henze-Zirkler), rechazándose ésta. Se estudiaron casos atípicos (distancia de Mahalanobis) dando como resultado 173 outliers. Se analizó la fiabilidad global y por dimensiones. Los resultados alcanzados en la fiabilidad global ( $= .98$ ) demuestran su alta consistencia interna. Igualmente, en las siete dimensiones, se obtienen niveles aceptables. La validez, analizada con un Análisis Factorial Confirmatorio, reportó resultados muy satisfactorios. La escala reúne las propiedades metodológicas exigidas para ser considerada válida y fiable para detectar a los alumnos con sospecha de dislexia en Primaria.

## **Validez por juicio de expertos: Rúbricas de competencias en física**

**Magaly Sierra Vite, M.E.E. / Catedrático, Bachillerato, Universidad Autónoma del Estado de Hidalgo, Hidalgo, México**

Es una propuesta de cómo validar rúbricas que evalúan las actividades comprendidas en un ciclo de aprendizaje utilizando la metodología TAC+4MAT para el desarrollo de competencias de formación, pensamiento crítico y creatividad en la enseñanza de la Física con el tema de energía en el bachillerato de la Universidad Autónoma del Estado de Hidalgo (UAEH) de México. Se realizó por medio de la validez de contenido por juicio de expertos, para verificar la pertinencia, claridad conceptual, redacción, terminología, niveles cognoscitivos, ortografía y formato con una escala Likert. Alcanzando una validez considerada como buena en cinco de los seis criterios de evaluación y excelente en el otro criterio para los niveles de complejidad del logro de competencias.

# Aprendizaje en la educación preescolar

## Programa de inclusión y atención a la diversidad: Yachakuna

**Paola Margarita Calderón Solís, Técnico docente, Vinculación con la Sociedad, Universidad Nacional de Educación, Cañar, Ecuador**

El proyecto de Vinculación con la Sociedad de la Universidad Nacional de Educación, titulado "Programa de Inclusión y Atención a la diversidad: Yachakuna" tiene por objetivo valorar la importancia de la práctica de actividad física en el desarrollo de habilidades y destrezas motrices en edades tempranas, comprendidas entre edades de 3 a 7 años. A través de dicho proyecto se han ejecutado una serie de actividades que buscan desarrollar las habilidades y destrezas motrices en niños y niñas de primera infancia. Como parte del diagnóstico ejecutado en la Escuela Básica de Innovación UNAE se obtuvo como resultado un escaso conocimiento de los docentes y padres de familia sobre el rol de las actividades físicas en el desarrollo de habilidades y destrezas motrices en la primera infancia. Además, se evidenció que debido a la pandemia los estudiantes se volvieron más sedentarios, juegan en dispositivos electrónicos y pasan muchas horas frente al televisor; el escaso tiempo de dedicación de los padres para actividades de recreación también ha influido. En virtud de ello, se han desarrollado acciones como talleres de capacitación dirigidos a padres de familia y docentes en la aplicación de actividades físicas, jornadas lúdico-pedagógicas con la finalidad de estimular el desarrollo de habilidades y destrezas motrices, entre otras. El proyecto se basa en los principios del deporte inclusivo y pone énfasis en la importancia de la actividad física en los procesos de aprendizaje y la implementación de actividades que contribuyan al desarrollo motor, la coordinación y control del cuerpo.

# Aprendizaje en la educación preescolar

## **Estudio del proceso de abstracción en niños de 6 a 7 años**

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Esta investigación tiene el objetivo de comprender el proceso de abstracción de los niños de 6 a 7 años, una de las etapas que más retos representa desde el punto de vista de la abstracción en el sistema educativo mexicano, ya que se da inicio a la escuela primaria donde se induce a un pensamiento cada vez más abstracto, enfocado en adquirir o consolidar la lectoescritura y manejar números para resolver problemas matemáticos. Se seleccionaron tres ambientes de ambientes de aprendizaje que fueron observados para su caracterización. Para estudiar las manifestaciones del proceso de abstracción de los niños de cada ambiente de aprendizaje se integraron un conjunto de tareas, seleccionadas y adaptadas de otras pruebas, las cuales fueron planteadas en una entrevista semiestructurada individual en un diseño pre y post test. Se sustenta teóricamente desde dos visiones constructivistas que conceptualizan la abstracción y que se articulan para comprender el proceso de abstracción en el ámbito escolar, por un lado, como parte del desarrollo cognitivo del niño desde la perspectiva piagetana y, por el otro, como un mecanismo cognitivo contextualizado en las historias de cada niño desde la perspectiva dialéctico-contextual. Durante la investigación han surgido evidencias del proceso de abstracción, lo que ha permitido también una mayor comprensión de este proceso de internalización y de algunos elementos que están en juego, como son la maduración, la importancia del cuerpo, del diálogo interno y del diálogo con los otros.

# Aprendizaje en la educación preescolar

## **Desarrollo cognitivo y motor en niños de edad preescolar a tres años post pandemia**

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Celia Josefina Rodríguez Cervantes, Profesor externo, Centro Universitario de Ciencias de la Salud, Universidad de Guadalajara, Jalisco, México**

Durante la etapa preescolar, estimular el desarrollo cognitivo y motor es fundamental, puesto que favorece otros procesos mayormente complejos como la lectura, escritura y el pensamiento matemático. Particularmente, el desarrollo de habilidades en los infantes se detuvo o redujo con el paso del confinamiento causado por la pandemia por COVID 19. A tres años post confinamiento, nos encontramos en nuestras aulas con alumnos que crecieron en un entorno de encierro, de esta forma se optó por realizar una evaluación del desarrollo cognitivo y motor en etapa preescolar. El propósito del trabajo es evaluar el desarrollo cognitivo y motor de alumnos en etapa preescolar. Con un estudio cuantitativo descriptivo transversal, se evaluaron 24 niños con edades entre los 48 y los 60 meses, (9 mujeres, 15 varones) que cursan el segundo grado de preescolar. Se aplicó el Inventario de Desarrollo BATTELLE, tomando las puntuaciones percentiles de las áreas cognitiva y motora. Para conocer el nivel de desarrollo cognitivo y motor, respecto al parámetro establecido en la muestra normal de la prueba, se utilizó la prueba T para muestra única, obteniendo diferencia significativa en la estimación del desarrollo, los resultados fueron negativos promoviendo la creación de un programa de estimulación de los requisitos de lecto escritura para brindar mayores habilidades a los estudiantes y así, posteriormente comparar sus resultados con los parámetros del Inventario de Desarrollo y el nivel de desarrollo de alumnos en edad preescolar.

# Aprendizaje en la educación preescolar

## Múltiples perspectivas: Necesidades educativas especiales y sobre población estudiantil en una escuela primaria de Ecuador

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El Ministerio de Educación de Ecuador señala que la educación inclusiva debe promover la identificación y atención a la diversidad de los estudiantes, garantizar la permanencia, promoción y culminación de los estudiantes en todas las modalidades y niveles a nivel nacional. Establece que es responsabilidad de las escuelas admitir a los estudiantes con necesidades educativas especiales asociadas o no a la discapacidad; sin embargo, en algunas escuelas las aulas de clase no cuentan con una infraestructura adecuada, además de que el número de estudiantes matriculados sobrepasa la capacidad que se establece en la ley y dificulta ofrecer una educación personalizada y de calidad. Por esta razón, el objetivo de la investigación es conocer la perspectiva de las docentes de preescolar y directora acerca de la sobre población estudiantil y las necesidades educativas especiales mediante un estudio etnográfico. A través de la aplicación de entrevistas semiestructuradas se pudo indagar acerca de esta problemática, mientras que la observación participante permitió identificar y vivenciar las situaciones que acontecen dentro y fuera de la escuela. Los resultados muestran que hay un sobrecupo en las aulas, la infraestructura es inadecuada, los espacios reducidos y que las soluciones implementadas hasta el momento por parte del distrito de educación son insuficientes y temporales. Los acuerdos ministeriales no se cumplen y se vulneran los derechos de estudiantes cuando el ministerio de educación autoriza que a un aula de clase pequeña con una sola docente asistan más de 25 niños además de varios casos de autismo y otras necesidades educativas.

# **Educación en ciencias, matemáticas y tecnología**

## **Objetivación inicial del concepto de función trigonométrica**

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La relación ética entre profesor y estudiante de autonomía y sumisión del estudiante (y en contra parte autoridad del profesor) en las imperantes corrientes pedagógicas, además de la fuerte creencia en el individualismo del estudiante, en el que este se concibe como un individuo constructor de su propio saber (el saber emana de él) y la problemática de abordar los objetos matemáticos (inherenteamente abstractos) desde una concepción estructural heredada por las escuelas de pensamiento del siglo XIX en las que las estructuras teóricas sobre bases axiomáticas potenciaron el formalismo en las aulas de clase, son el complejo entramado que componen el problema de investigación. Se buscó entonces analizar los procesos de objetivación iniciales, enmarcados en la objetivación del concepto de función trigonométrica, que se dan al realizar procesos de toma de conciencia gradual respecto a las relaciones de dependencia de magnitudes variables en fenómenos periódicos. Para ello se analizaron los medios semióticos de objetivación de un grupo de 4 estudiantes de grado décimo de secundaria a luz de los lineamientos teóricos y metodológicos del enfoque histórico-cultural de la teoría de la Objetivación, encontrando que los estudiantes realizaron satisfactoriamente un proceso de toma de conciencia gradual hacia el encuentro con dicho saber.

# Educación en ciencias, matemáticas y tecnología

## **La construcción del operador multiplicativo en niños con dificultades de aprendizaje: Intervenciones con el Juego del Hoyo**

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**Érica De Cássia Gonçalves, Doutorada, Universidade Estadual Paulista Júlio de Mesquita Filho, São Paulo, Brazil**

En Brasil hay un número importante de estudiantes que no acompañan las actividades escolares y son identificados por sus profesores como niños con dificultades de aprendizaje. El objetivo central del estudio fue realizar intervenciones pedagógicas teniendo como objetivo la construcción del operador multiplicativo con niños con quejas de dificultades en matemática. En el estudio participaron 27 estudiantes con edad entre 8 y 10 años, matriculados en una escuela pública del interior de la provincia de São Paulo, designados por sus profesores como niños con dificultades. Los alumnos fueron sometidos a sesiones de intervención con el juego del hoyo, que permite diferentes acciones, conteos y combinaciones de fichas favoreciendo la construcción de la noción de multiplicación y operador multiplicativo. Las sesiones se llevaron a cabo en grupos reducidos, en el propio colegio, y cubrió las siguientes etapas: conocimiento del juego, construcción de estrategias, resolución de situaciones problemáticas y análisis de las implicaciones para el juego. Los conflictos cognitivos provocados promovieron importantes construcciones, entre ellas: emparejamiento de término a término y emparejamiento de uno a muchos; secuencia en puntaje; escribir números; sustitución gradual de los procedimientos aditivos por multiplicativos; conocimiento y análisis de las cantidades obtenidas en las propias jugadas; anticipación y planificación de las jugadas; inicio de la construcción de la noción de división. Las interacciones e intercambios proporcionados por el juego también provocaron la necesidad de importantes descentramientos para el desarrollo cognitivo. Al final de las sesiones, los profesores informaron mejoras en los aspectos cognitivos y sociales de los participantes.

# Educación en ciencias, matemáticas y tecnología

## **Integrando resultados obtenidos en Educación Física en las clases de Matemáticas: Del Juego Motor al Aula**

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La integración de las matemáticas en la Educación Física busca enriquecer el aprendizaje de los estudiantes al combinar el movimiento con conceptos matemáticos, facilitando la comprensión de contenidos abstractos en contextos lúdicos. Un estudio realizado en una escuela de Barcelona con 68 estudiantes de cuarto curso de primaria y cuatro profesoras adoptó un enfoque mixto (cuantitativo y cualitativo) para explorar percepciones sobre el uso de datos numéricos en la clase de educación física y su aplicación en el aprendizaje de estadística. Los resultados indican que el uso de datos recolectados durante las clases de educación física enriquece el proceso de enseñanza-aprendizaje de las matemáticas, generando mayor significatividad cognitiva. Aunque hubo resultados positivos en cuanto al impacto emocional y la percepción general de la clase de matemáticas, algunas alumnas mostraron incomodidad al compartir sus datos y encontraron el contenido poco motivador o difícil de entender. Sin embargo, la experiencia práctica de recopilación y análisis de resultados proporcionó una comprensión más concreta de las matemáticas, aumentando el compromiso y la retención del conocimiento. Las conclusiones obtenidas fueron que la integración interdisciplinaria entre matemáticas y educación física se presenta como una propuesta efectiva para un aprendizaje más profundo, significativo y competencial en ambas áreas. Además se sugiere mejorar futuros proyectos considerando la comodidad de los estudiantes al compartir datos y abordando la motivación y comprensión del contenido.

# Educación en ciencias, matemáticas y tecnología

## Fomentando la motivación y el desarrollo de competencias matemáticas a través de la enseñanza para la comprensión: Enseñanza de la trigonometría por medio de metodologías activas

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María Paulina Arango Fernández

Durante los últimos 30 años, el Ministerio de Educación Nacional de Colombia ha promovido el desarrollo de competencias matemáticas en colegios para que los estudiantes adquieran comprensión de conceptos básicos y habilidades para enfrentar desafíos cotidianos. A pesar de los esfuerzos, los desempeños obtenidos por los estudiantes a nivel de competencias matemáticas no son los esperados, tanto en colegios públicos (que educan al 80% de la población escolar) como en privados (que educan al 20% restante). Esta investigación revela cómo el diseño de actividades basadas en la enseñanza para la comprensión y metodologías activas en el colegio San José de las Vegas (Medellín, Colombia) favoreció la motivación y el desarrollo de habilidades matemáticas en las estudiantes. El marco del trabajo se sustenta en tres competencias clave: interpretación y representación, argumentación y razonamiento, formulación y ejecución, abordadas mediante la resolución de problemas, el aprendizaje significativo y el aprendizaje situado. Las actividades que se diseñaron buscaron que las estudiantes de décimo grado adquirieran estas competencias, y el impacto se evaluó interna y externamente. La investigación se divide en tres fases: diseño y validación de actividades, implementación en el aula y evaluación. Los resultados indican que cuando los docentes se centran en la enseñanza para la comprensión y las metodologías activas, los estudiantes encuentran sentido en sus acciones, desarrollan habilidades metacognitivas y mejoran su rendimiento en pruebas estandarizadas. Esta experiencia colombiana es relevante para ser investigada en otros contextos latinoamericanos que enfrentan desafíos educativos similares.

# Educación en ciencias, matemáticas y tecnología

## Una estrategia de aprendizaje en estudiantes de nivel medio superior: Proyectos de estadística

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Ubaldo Chávez Morales**

El presente trabajo se realizó con estudiantes de bachillerato de sexto semestre, donde se formaron por equipos de trabajo para que cada uno de ellos realizará un proyecto de estadística, realizando encuestas para dicho trabajo que al final presentaron como cartel. Cada equipo realizó su propia encuesta y la aplicó a diversos estudiantes de la misma preparatoria y algunos a estudiantes de nivel licenciatura. Cabe mencionar que el proyecto se realizó durante el transcurso del semestre en el que se encontraban que era enero-junio de 2024, explicándoles desde un inicio la forma de trabajar, ya que se les solicitaron avances previos. Al final de su trabajo de investigación se les hizo una pequeña encuesta solicitando la perspectiva que tuvieron al trabajar con la metodología de aprendizaje basado en proyectos. Presentaron su trabajo en la semana del saber, donde expusieron todos los equipos sus carteles. En dicha encuesta se les solicitó que contestaran si el proyecto les generó autoaprendizaje, si lo pudieron relacionar con los temas vistos en clase.

## El viaje estelar: Integrando la astrofísica en la educación para desarrollar competencias científicas

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Si a través de la astrofísica se puede comprender las ciencias naturales y sociales y aplicar las matemáticas, ¿por qué no se enseña en los colegios como un área del conocimiento? Desde hace siete años, el Colegio San José de Las Vegas (Colombia) creó un semillero para estudiantes de secundaria, con el objetivo de enseñar astrofísica interdisciplinariamente, a través de experimentos, teoría y uso de herramientas tecnológicas, sirviéndose del aprendizaje significativo crítico de Moreira, que enfatizan el aprendizaje holístico y la conexión contextual. El semillero se implementa a través de visitas a observatorios astronómicos, campañas de la NASA y concursos de STEAM que refuerzan el aprendizaje experiencial y la aplicación práctica del conocimiento y conectando a los estudiantes con comunidades científicas, para que aprendan interactuando con expertos nacionales e internacionales. El seguimiento se ha hecho a través de estudios de caso. La evaluación es formativa y busca identificar el desarrollo de competencias en los estudiantes y fomentar motivación por la ciencia. Con 140 estudiantes formados en astrofísica, algunos de los resultados son: desarrollo de competencias científicas y pensamiento interdisciplinario, desarrollo de pensamiento crítico, resolución de problemas y comunicación efectiva, interés de las mujeres por temas científicos, uso de herramientas manuales y digitales, cooperación local y global, aumento en la elección de carreras universitarias afines y la construcción de un plan curricular que integra la astrofísica y que es una invitación para que otros colegios la incorporen como un incentivo para que los estudiantes se acerquen más a las ciencias y las matemáticas.

# Educación en ciencias, matemáticas y tecnología

## **Estrategias cooperativas para el desarrollo de competencias digitales: Resultados y reflexiones**

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Las competencias digitales engloban un conjunto de conocimientos, habilidades y actitudes claves para formar ciudadanos competitivos en un mundo cada vez más digitalizado que exige ir más allá de solo tener las habilidades para usar las TIC. En este contexto el presente trabajo describe los resultados obtenidos al implementar un proyecto de Gestión del Aprendizaje, el cual tuvo como objetivo utilizar el aprendizaje cooperativo como estrategia para desarrollar competencias digitales en estudiantes de secundaria del Colegio Tepeyac en Poza Rica, Veracruz, México, centrado en las tres primeras áreas del Marco Europeo de Competencias Digitales DigComp 2.2. Dentro del enfoque de la investigación-acción y el modelo de diseño instruccional ADDIE se aplicaron estrategias del aprendizaje cooperativo, evaluando el desarrollo de competencias digitales mediante un instrumento basado en cuestionario de opción múltiple. Los resultados muestran que se mejoraron significativamente las competencias digitales al presentar un 44.83% de los estudiantes alcanzando un nivel avanzado y un 55.17% en nivel intermedio en el área de Información y alfabetización digital, un 48.28% en nivel avanzado y 51.72% en nivel intermedio en el área de comunicación y colaboración, y un 37.93% en nivel avanzado y 62.07% en nivel intermedio en el área de creación de contenido digital, demostrando con ello la eficacia del aprendizaje cooperativo como estrategia educativa para el desarrollo de competencias digitales.

# Educación en ciencias, matemáticas y tecnología

## **Uso de simuladores para la generación datos en la enseñanza de estadística en ingeniería: Problemas en contexto de riesgo para el análisis descriptivo de datos**

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En el aprendizaje de la estadística se ha observado que el estudiantado tiene dificultades para interpretar resultados y tomar decisiones con base en el análisis estadístico, considera solo la media como descriptivo de una muestra y no comprende el proceso de experimentación. Esto podría deberse a que durante su formación académica han resuelto problemas de manera algorítmica, calculando medidas de tendencia central y dispersión y construyendo gráficos sin reflexionar sobre su significado. Además, generalmente, se proporcionan pequeñas muestras, por lo que el alumnado no se involucra en la experimentación, definición de variables, muestreo y organización de datos. Por este motivo, se presentan tres simuladores: Georder Simulator genera datos sobre la geolocalización de pedidos a un comercio electrónico; se debe determinar si implementar un sistema de transporte propio o contratar a una empresa. Huilacoche Production proporciona datos sobre el porcentaje de cobertura y peso de un hongo comestible presente en el maíz; deben elegir variedad y ubicación de mayor producción. Sim-manlift presenta datos sobre el tiempo de vida útil en horas de cuatro modelos de máquinas; deben seleccionar un proveedor. Estos simuladores fueron diseñados para usar y reflexionar sobre la importancia de las medidas de dispersión como descriptivos del riesgo para la toma decisiones. El objetivo es analizar el efecto del uso del simulador sobre razonamiento estadístico que emerge al resolver la situación problema. Los resultados muestran que el estudiantado presentó sus soluciones con argumentación estadística, utilizando además de la media, la mediana, varianza, máximo, mínimos, rango, pruebas estadísticas y gráficos.

# Educación en ciencias, matemáticas y tecnología

## **Integración de la enseñanza de las matemáticas y la psicomotricidad en la Educación Infantil: Enfoques interdisciplinarios para la formación de futuros docentes y el desarrollo integral de los niños y niñas**

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El propósito de esta investigación es analizar y proponer métodos efectivos para integrar las matemáticas y la psicomotricidad en la educación infantil, con el objetivo de formar futuros docentes y contribuir al desarrollo integral del alumnado. La investigación se centra en cómo la combinación de estas dos áreas puede mejorar la comprensión matemática y las habilidades motoras en los primeros años de educación, creando una base sólida para el aprendizaje continuo. Se emplearon métodos cualitativos y cuantitativos para evaluar la efectividad de la integración de las matemáticas y la psicomotricidad. Primero se llevó a cabo una revisión de la literatura existente sobre la intersección de estas dos disciplinas. Luego, se desarrollaron y aplicaron programas piloto en aulas de educación superior y se realizaron encuestas a docentes en formación para recoger sus percepciones sobre la implementación de estas técnicas. Los resultados indican que la integración de actividades psicomotoras en la enseñanza de las matemáticas no sólo mejora la competencia matemática de los niños, sino que también fomenta habilidades como la coordinación, el equilibrio y la percepción espacial. Además, se observó un aumento en el interés y la motivación de los estudiantes hacia las matemáticas. Las implicaciones de esta investigación sugieren que la formación de docentes debe incluir estrategias interdisciplinarias que promuevan el aprendizaje activo. La adopción de estos métodos puede transformar la educación infantil, proporcionando a los discentes una experiencia de aprendizaje más rica y variada, y preparando a los futuros docentes para aplicar enfoques innovadores en sus prácticas educativas.

# Educación en ciencias, matemáticas y tecnología

## **El Teorema de Pitágoras y su importancia en la comprensión de temas matemáticos: Importancia en la comprensión de las matemáticas**

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La importancia de conceptos que se revisan desde la matemática de la educación básica, pareciera que se dejan al lado sin dar un uso concreto y congruente con temas que deben considerarse en temas más avanzados. En este trabajo el Teorema de Pitágoras es un concepto que los estudiantes recuerdan con facilidad; sin embargo, sólo lo repiten memorísticamente empleando las mismas letras con que se les enseña, sin dar una explicación sobre cómo se relaciona en temas subsecuentes. En este estudio se le da relevancia a este teorema y el uso que tiene en las asignaturas presentes en la trayectoria académica de los estudiantes que cursan el bachillerato. El Teorema de Pitágoras está presente en diversos conceptos que se revisan y sin dar el valor como un elemento que interviene en la concepción y construcción de nuevos conceptos que el estudiante requiere para su conocimiento. Adicional, es necesario tener presente los conocimientos previos relacionados al Teorema de Pitágoras, que en gran parte de las veces se reduce a que en este punto, es necesario que el estudiante recuerde e identifique en el mejor de los casos, la relación de los elementos. Así, dentro del aula, se cuenta con una visión simplista y reduccionista que implica mostrar a los estudiantes una interpretación de conceptos matemáticos, complejidad, en este sentido, y en congruencia con Morín, es necesario emplear la complejidad como metodología de acción, lo cual implica analizar e identificar características que no se toman en cuenta en la didáctica tradicional.

## **Estrategias pedagógicas para la enseñanza del concepto de límite en cálculo: Un enfoque para docentes en formación**

**Erick Radai Rojas Maldonado, Profesor, Universidad Michoacana de San Nicolás de Hidalgo, Michoacán, México**

El artículo aborda las complejidades inherentes a la determinación de límites laterales y centrales en el análisis matemático, destacando la propensión a la confusión con la evaluación funcional. Se enfatiza la importancia de una distinción meticulosa entre estos conceptos para evitar interpretaciones erróneas que puedan comprometer la comprensión teórica y la aplicación práctica. La elucidación de los límites laterales se presenta como un prerequisito esencial para la caracterización precisa de la continuidad y la diferenciabilidad, mientras que la evaluación de una función se reconoce como un proceso distinto, aunque relacionado. El texto sugiere que una apreciación profunda de estas nociones es fundamental para el avance del cálculo y su instrumentalización en diversas disciplinas científicas y tecnológicas

# Educación en ciencias, matemáticas y tecnología

## **Una aproximación a la transdisciplina educativa mediante un taller de prototipos de energía solar: Transdisciplina y energía solar**

**Jonás Torres Montealbán, Profesor Investigador, Preparatoria Agrícola, Universidad Autónoma Chapingo, México**

Se presenta una experiencia educativa transdisciplinaria a través de la implementación de un taller de energía solar que ataca el problema del suministro de energía a una casa aislada (fuera de la red eléctrica). Se trabajó con estudiantes de diferentes especialidades de ingeniería agrícola que han culminado sus estudios. Conectando con ellos actividades teóricas, prácticas y lúdicas a través de diferentes niveles de representación (descripciones, imágenes, conexiones sociales, tecnologías informáticas y modelos matemáticos) necesarios para la comprensión fenomenológica de la energía solar en el marco del desarrollo sostenible. Con base en una propuesta metodológica de tres etapas: 1) Indagar en los conocimientos que tienen los participantes sobre el uso de la energía solar (PreTest); 2) Seleccionar prototipos como: un calentador de agua, un deshidratador solar y un panel fotovoltaico adaptable a las necesidades socioeconómicas y culturales de la zona de estudio; 3) Establecer las bases para implementar los dispositivos energéticos en el lugar seleccionado. Finalmente, al aplicar nuevamente la encuesta inicial (PostTest), se identificaron avances en las percepciones de los estudiantes sobre el uso responsable de la energía, el compromiso social de la tecnología solar y la redefinición de valores como la cooperación, la justicia, la responsabilidad y la retroalimentación de saberes.

# Educación en ciencias, matemáticas y tecnología

## **Aplicación del Diseño Universal de Aprendizaje (DUA) para la mejora de la mediación pedagógica en la enseñanza de la química general: Rediseño de fundamentos de química general bajo el enfoque DUA**

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Se llevó a cabo una investigación exploratoria con el objetivo de reformular el plan de estudios del curso de Fundamentos de Química, aplicando los principios del Diseño Universal de Aprendizaje (DUA). Este enfoque se seleccionó con el fin de optimizar la mediación pedagógica y adecuar la instrucción a las exigencias contemporáneas. La indagación se sustentó en un análisis de las vivencias de los docentes pertenecientes a la cátedra de Química General en una universidad pública, así como en una exhaustiva revisión bibliográfica. Se buscaba identificar áreas de mejora en los programas de los cursos teóricos y prácticos. La metodología adoptada se caracterizó por un enfoque mixto, que combinó la aplicación de un cuestionario a profesores que previamente habían dirigido el curso, con una investigación bibliográfica sobre propuestas de rediseño en cursos análogos o relacionados con la ciencia. Entre los resultados más sobresalientes se resalta la recomendación de incorporar el modelo de aula invertida, respaldada por el uso de recursos digitales, como estrategias para fomentar un aprendizaje más eficaz e inclusivo. Se concluyó que estas estrategias y ajustes curriculares contribuirán a potenciar la experiencia de aprendizaje de los estudiantes y la enseñanza de la química, al tiempo que se anticipa su capacidad para promover el desarrollo de competencias requeridas en la actualidad. De igual forma, este estudio aporta una visión práctica sobre la integración efectiva del DUA en el diseño curricular.

# Educación en ciencias, matemáticas y tecnología

## **La renovación del perfil docente en el Área de física de preparatoria agrícola de la UACH**

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El quehacer docente es un proceso elemental en las instituciones educativas. Los profesores se pueden jubilar o retirar por edad y/ o por salud, permitiendo que otros profesores en su mayoría más jóvenes ocupen sus lugares. En el caso del área de Física de la Preparatoria Agrícola de la UACH, Los docentes que ingresan, lo hacen participando en un examen de oposición, una propuesta de una determinada actividad práctica y la evaluación de una clase frente a grupo. Sin embargo, ya que se encuentran laborando al parejo de todos los compañeros profesores, surgen interrogantes como: ¿Se tienen los mismos procedimientos académicos en todos los profesores de Física para desarrollar sus cursos? Las actividades de apoyo ¿son conocidas por todos y entre todos los profesores de Física de esta área académica? Se requiere que se tengan las mismas formas de trabajo, la misma profundidad en la enseñanza de los contenidos, el mismo número de prácticas o equivalentes, el mismo número de exámenes y la forma de evaluación aprobadas por el área. Los docentes de reciente ingreso tardaran en interrelacionarse con los compañeros, lo que puede afectar al desarrollo de los cursos y por ende a los alumnos. Se trata de realizar una investigación mixta. La metodología es la siguiente: Allegarnos de referentes teóricos relacionados con las diferencias de perfil académico y de trabajo metodológico en los docentes en instituciones universitarias y ver las diferencias en los profesores, recopilamos la información derivada del cuestionario, sistematizamos e interpretamos.

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# Common Ground Research Networks



# COMMON GROUND

Fundada en 1984, Common Ground Research Networks está comprometida con la construcción de nuevos tipos de Redes de Investigación, es innovadora en sus medios de comunicación y con una visión a futuro en sus mensajes. Los sistemas de patrimonio del conocimiento se caracterizan por sus separaciones verticales: de disciplina, asociación profesional, institución y país. Common Ground Research Networks toma algunos de los retos fundamentales de nuestro tiempo y construye comunidades de conocimiento que cortan de manera transversal las estructuras de conocimiento existentes. La sostenibilidad, la diversidad, el aprendizaje, el futuro de las humanidades, la naturaleza de la interdisciplinariedad, el lugar de las artes en la sociedad, las conexiones de la tecnología con el conocimiento, el papel cambiante de la universidad, todas estas son preguntas profundamente importantes de nuestro tiempo, que requieren un pensamiento interdisciplinario, conversaciones globales y colaboraciones intelectuales interinstitucionales.

Common Ground es un lugar de encuentro para las personas, las ideas y el diálogo. Sin embargo, la fuerza de estas ideas no consiste en encontrar denominadores comunes. Al contrario, el poder y la resistencia de estas ideas es que se presentan y se examinan en un ámbito compartido donde la diferencias tiene lugar –diferencia de perspectiva, de experiencia, de conocimientos, de metodología, de orígenes geográficos o culturales o de afiliación institucional. Estos son los tipos de entornos académicos, vigorosos y solidarios, en los que se llevarán a cabo las deliberaciones más productivas sobre el futuro. Nos esforzamos en crear los lugares de imaginación e interacción intelectual que nuestro futuro merece.

MEMBERS OF THE FOLLOWING ORGANIZATIONS



Association of Learned  
and Professional  
Society Publishers



Society  
for Scholarly  
Publishing



Common Ground Research Networks es una organización sin ánimo de lucro registrada en el estado de Illinois, EEUU, organizada y regida de conformidad con el General Not For Profit Corporation Act de 1986, 805 ILCS 105/101.01, et seq.



El equipo de desarrollo de Common Ground Media Lab ha estado trabajando incansablemente para crear una plataforma web de última generación adecuada para un congreso mixto. El componente online es un pilar de comunicación, dado que permite a los ponentes y oyentes asistir de modo presencial u online.

La plataforma de CGScholar está desarrollada por Common Ground Media Lab, la rama de investigación y tecnología Common Ground Research Networks.

Common Ground Research Networks ha desarrollado ecologías de conocimiento y tecnologías de comunicación sobre la investigación académica desde 1984.

Nuestra premisa ha sido que las plataformas mediáticas –pre digitales y ahora también digitales– a menudo no han sido diseñadas para estructurar y facilitar una economía de conocimiento rigurosa, democrática y sostenible.

CGScholar es una plataforma que busca convertirse en una espacio de mercado confiable para el trabajo relativo al conocimiento, uno en el que los procesos de democratización rigurosos en la generación de conocimiento, recompense a los participantes y ofrezca una base segura para la creación y distribución sostenible de artefactos de conocimiento digital.

La plataforma de CGScholar es hoy en día usada por trabajadores del conocimiento tales como facultades universitarias para trasmitir experiencias de e-learning; escuelas innovadoras que desean desafiar los métodos de aprendizaje y evaluación usados tradicionalmente; organizaciones gubernamentales y no gubernamentales que conectan el conocimiento local y la experiencia con objetivos de políticas más amplias y resultados mensurables. Cada uno de estos casos ilustra las diferentes comunidades del conocimiento que CGScholar sirve, al mismo tiempo que abre espacios para voces nuevas y emergentes en el mundo de la comunicación académica.

Con más de 27.000 trabajos publicados y 200.000 usuarios, hemos recorrido un largo camino desde nuestra primera aplicación web veinte años atrás. Pero todavía consideramos que esto es únicamente el principio.

Como una organización sin ánimo de lucro, la misión que guía a Common Ground Research Networks es la de apoyar la creación de una sociedad mejor e informar a los ciudadanos a través del rigor y del desarrollo de prácticas del conocimiento caracterizadas por la inclusión social, ofreciendo para ello espacios académicos de comunicación presenciales y online.

## Colaboradores

Agradecemos el generoso apoyo de:



¡Así como a los miembros de la Red de Investigación!

[www.cgnetworks.org/mediablab](http://www.cgnetworks.org/mediablab)



United Nations  
Climate Change

CLIMATE  
NEUTRAL NOW

El cambio climático es uno de los problemas más apremiantes a los que nos enfrentamos hoy día. Es de interés común que todos participemos en un cambio sistémico con el que evitar la catástrofe climática. En Common Ground Research Networks, nos comprometemos a desempeñar nuestro papel como agente de transformación, promoviendo la concienciación y haciendo todo lo posible para liderar con nuestro ejemplo. Nuestra Red de Investigación "Climate Change: Impacts and Responses" ha sido un foro en el que compartir hallazgos críticos y donde involucrarse en cuestiones científicas, teóricas y prácticas que surgen de las realidades del cambio climático. Hemos sido parte del debate político global como observadores oficiales de la COP26 en Glasgow. Y somos signatarios de los "Objetivos de Desarrollo Sostenible de la ONU – Convenio de editores" y de la iniciativa de las Naciones Unidas "Neutralidad Climática Ahora".

## Medición

En 2022 comenzamos un seguimiento y medición de las emisiones que producimos en todas las fases de nuestra actividad. El objetivo es conseguir hacernos una imagen completa de nuestras bases para identificar las áreas donde las emisiones pueden ser reducidas y construir un plan de acción a largo plazo basado en la herramienta de cálculo de emisiones GEI y en el estándar establecido por la iniciativa "Neutralidad Climática Ahora" de las Naciones Unidas.

## Reducción

Mientras tanto, no nos limitamos a esperar. Estamos avanzando rápidamente con algunas de las iniciativas que se encuentran a nuestro alcance: hemos modificado los programas de nuestros congresos, pasando de imprimirlas a usar el formato electrónico; hemos dejado de usar vasos desechables y comenzado a ofrecer botellas reutilizables en todos los congresos; colaboramos estrechamente con todos los vendedores, proveedores y distribuidores para encontrar formas de reducir residuos; ofrecemos una opción online completa como una manera de disminuir el número de viajes. Todo esto es solo una pequeña muestra de lo que hacemos a corto plazo.

## Contribución

Al mismo tiempo que trabajamos en establecer y fijar objetivos de cero emisiones netas para 2050, tal como se consagra en el Acuerdo de París y la iniciativa "Neutralidad Climática Ahora" de las Naciones Unidas, así como en disminuir nuestro impacto actual, participamos en el programa de compensación de carbono de las Naciones Unidas. Como consideramos que el cambio climático tiene amplias consecuencias sociales, económicas y políticas, estamos invirtiendo en los siguientes proyectos:

- Proyecto hidroeléctrico en Nadarivatu, Fiji
- Programa de Salud Pública DelAgua en África Oriental
- Parque eólico Jangi en Gujarat

## Objetivos a largo plazo

Nos comprometemos con el objetivo a largo plazo de alcanzar cero emisiones netas de base científica en nuestras operaciones –y creemos que podemos lograrlo mucho antes de 2050. Informaremos anualmente a través del mecanismo de informes de "Neutralidad Climática Ahora" para comunicar de manera transparente cómo estamos cumpliendo con nuestros compromisos relativos a la acción climática.

[www.cgnetworks.org/about/climate-pledge](http://www.cgnetworks.org/about/climate-pledge)

**Proceedings of the Thirty-First International Conference on Learning, hosted by the Utrecht University, Utrecht, Netherlands, 10-12 July 2024. The conference featured research addressing the following special focus: "The Converging Challenges for Inclusive Education: Intercultural Competences and Digital Literacies in Global Contexts" and annual themes:**

- **Theme 1: Pedagogy and Curriculum**
- **Theme 2: Assessment and Evaluation**
- **Theme 3: Educational and Organization and Leadership**
- **Theme 4: Early Childhood Learning**
- **Theme 5: Learning in Higher Education**
- **Theme 6: Adult, Community, and Professional Learning**
- **Theme 7: Learner Diversity and Identities**
- **Theme 8: Technologies in Learning**
- **Theme 9: Literacies Learning**
- **Theme 10: Science, Mathematics, and Technology Learning**

