

EARLI SIG 10, 17, 21, & 25 Conference

University of Augsburg, March 25-27, 2026

Book of Abstracts

Meaningful Metamorphoses:

Navigating Learning and Instruction in/for Times of Change



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EARLI SIG 10, 17, 21, & 25 Conference

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University of Augsburg, Building I, Universitätsstraße 12, 86159 Augsburg, Germany

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Our special thanks go to all peer reviewers of the conference submissions. We appreciate your support. Thank you.

Invited Keynote Presentations

Listed Alphabetically

The Role of Social Relatedness in Times of Digitalization, Globalization, Increasing Social Division and Mental Health Problems

Gerda Hagenauer

Although technology and global exchange have opened new spaces for learning and teaching, our societies simultaneously face rising polarization and growing mental health challenges, underscoring the enduring importance of human relationships in education.

In this talk, I explore the foundational role of social relationships in education, arguing that genuine human connection remains essential for meaningful learning and teaching. Drawing on pedagogical and psychological perspectives, the focus is on how social relatedness is deeply intertwined with emotions and well-being in educational contexts. I also examine what constitutes “relatedness” and how this sense of connection can be intentionally fostered within learning environments. Furthermore, I reflect on ways to capture the quality of relationships - particularly their affective dimension - and to understand their development in all their complexity.

The perspective presented in this talk emphasizes that the goal is not to look back to past practices (e.g., before digitalization), but to highlight the continuing importance of relationships in contemporary education and to explore ways to reintegrate relational aspects more fully into educational research and practice. Prioritizing relationships in education, therefore, underscores that human connection remains at the core of learning, teaching, and transformation.

Exploring Hybrid Sociality in the Screen Age: Potentials and Tensions in Participatory Research with Students

Marie Nilsberth

The increasing presence of connected screens has introduced new technology-mediated layers into human social interactions, permeating nearly every aspect of daily life including education. Being a student today entails not only attending a physical school building but also engaging in frequent screen-mediated interactions with peers, teachers, and school-related content via computers and smartphones. As a result, students' everyday educational experiences now unfold within hybrid spaces, where they seamlessly navigate between online and offline environments. For educational researchers interested in emic perspectives on how screen-mediated communication influences participation and social interaction, this shift presents a range of methodological and ethical challenges.

In my talk, I will explore and critically examine some of the potentials and tensions that have emerged from some recent ethnographic classroom studies, where I, together with fellow researchers, have developed participatory approaches involving students as co-researchers. Social interaction in hybrid spaces, distributed across both physical and screen-mediated participation and often difficult to observe, cannot easily be captured through traditional classroom ethnographic methods. From an ethical standpoint, this requires a high degree of sensitivity, as these practices often involve highly private content and therefore demand ongoing, dynamic ethical considerations. Inviting students as co-researchers has the potential to ensure that they understand the research goals and are given space to reflect on and define their own boundaries regarding what they find appropriate to share. At the same time, the ethos of participation can sometimes come into tension with researchers' interests—a tension that, in practice, calls for methodological flexibility as well as continuous critical reflection on ethics and academic values.

Peer-Reviewed Conference Presentations

Listed Alphabetically

Flooring Dance: From Perception to Inscription in a Culturally Situated Embodied Geometry Design

Ratih Ayu Apsari, Dor Abrahamson

Solving geometry problems often depends on introducing auxiliary lines to reveal latent structural relations among figurally disparate diagrammatic components. Yet generating such lines is challenging, as students must envision new elements that are not yet materially available. Meanwhile, a phenomenologically comparable dynamic occurs in movement learning, such as in dance: to coordinate the enactment of independent multi-limb actions, dancers generate attentional anchors—imagined perceptual structures that coherently organize kinesiological intentionality. Building on Reed and Bril's theoretical construct field of promoted action, the Geometry Resources in Dance (GRiD) design-based research project conjectures that, given appropriate cultural mediation that includes semiotic resources and attentive guidance, students can objectify their covert attentional anchors from dance practice as overt auxiliary lines for geometry discourse. We report on results from micro-analyzing the multimodal social interactions of four Balinese 5th-grade students as they coordinated their actions to form a circle in a dancing context. Attentional anchors, first evidenced in their gaze and bodily orientation, gradually materialized in response to joint-action constraints into a geometric system of auxiliary lines inscribed on a provided floor-mat template. We speculate that the Balinese cultural ecology—where sitting, kneeling, and working on the ground are normative—facilitated the literal grounding of perception as geometric inscription. Within the GRiD context, action and inscription are not dichotomized but epistemically continuous: tracing lines of perceptual intentionality on the floor is experienced not as mathematizing, modeling, or abstracting but as gestured marking of enactive practice.

A Framework Proposal for Integration Health Literacy in Medical Curricula

Bürge Atılğan, Tülin Çoban, Sevgi Turan, Sarp Üner, Hilal Özcebe, Seçil Özkan

This article presents the framework of a health literacy (HL) education program developed for medical school curricula, based on a qualitative study from the HELEM-EU project that gathered input from medical educators. This qualitative, phenomenological study gathered data through online, semi-structured interviews with 20 faculty members from different departments in a medical school. Content analysis identified themes by combining codes from interview data to explain key concepts and relationships. Faculty opinions on integrating HL programs into medical curricula were grouped into seven themes: competencies, content, teaching methods, assessment, program structure and timing, faculty preparation, and dissemination. The “communicator” role was highlighted as essential, with recommendations to cover communication, difficult situations, crisis management, and the importance of HL in training. Interactive teaching and assessment methods were emphasized, and structured, longitudinal HL programs were recommended for inclusion in ongoing professional development. The proposed HL educational programs, integrated into the medical school curriculum, are expected to enhance students' knowledge, attitudes, and skills in HL, ultimately helping to improve community health.

The interplay among tertiary students' L2 grit, motivation and English proficiency

May Aung

This mix-methods study investigated EFL tertiary students' language learning grit, motivation, and English proficiency. 344 students from a public University in Myanmar participated. Thematic analysis described participants' passion and perseverance, intrinsic and extrinsic motives in English learning. The statistical analyses evidenced that language learning grit and motivation had significant effect size on the variance of participants' language attainments; grit had a larger effect size. The interest variable was significantly more related to differences in proficiency than the effort variable. It was found that participants' intrinsic motivation had a larger effect size on their proficiency differences. English major students' language learning grit, motivation, and achievements were significantly higher than non-majors.

The Ethical Dimensions of Education in Challenging Times

Sabrina Bacher

Education cannot remain neutral when political, ecological, technological, societal, or cultural upheavals challenge life in all its facets. Under these circumstances, education needs to be continuously reflected ethically to make meaningful decision. However, the field of educational ethics remains underexplored, and a systematization of educational ethics is still lacking. The proposed presentation aims to outline such a concept. It unfolds in two steps: (1) First, educational ethics is categorized as a subfield within applied ethics, based on a classification scheme from philosophical ethics. It demonstrates that the three philosophical-ethical domains (metaethics, prescriptive ethics, and applied ethics) are closely interlinked and crucial for educational ethics. (2) Second, the focus shifts to educational sciences. Referring to Fend's systematization of formal education, which distinguishes three levels (micro-, meso-, and macro level), key topics in educational ethics are identified. The combination of structures from philosophical ethics and the different levels of formal education enables the development of a structural framework for educational ethics. The presentation emphasizes that a rigorous examination of topics within educational ethics requires perspectives of both fields - philosophical ethics and educational science - as each is essential to a comprehensive understanding. In the long term, a stronger establishment of educational ethics has the potential to contribute to improving education systems on all levels. Well-founded ethical principles can provide opportunities to design education systems and practices not merely based on functional and efficiency-oriented criteria but also to critically reflect on and further develop the norms and values underlying them.

Multilingual Education and Language Sensitivity as Meaning Metamorphoses in Times of Transformation

Sarah Bachlechner

In many national education systems, language continues to be taught predominantly in isolation, which raises critical questions about its adequacy in an increasingly multicultural and multilingual world. The European School model pursues an alternative multilingual approach: language functions not only as a subject of instruction but also as a medium of cultural, social, and values-based education. It is based on multilingualism, language sensitivity, and intercultural learning, promoting a fundamental change in educational practice. The Accredited European School Tyrol (AES-T) is the first school in Austria. It transfers these principles to the Austrian context and focuses on integrative, learner-centered education. The proposed presentation describes an empirical study on how teachers and school administrators at the AES-T understand multilingualism and language sensitivity and implement them at the meso (school) and micro (classroom) levels. Guided interviews (n=10) are used to record perspectives, practices, and challenges in inclusive and reflective language teaching. Data analysis is carried out through computer-assisted qualitative content analysis, supported by the software MAXQDA. The aim of this study is to critically examine the implementation of integrative, reflective language education and to explore how the AES-T fosters sustainable innovation within educational practice in times of profound transformation.

Teachers' Perspectives on Professionalisation: Balancing Formal and Informal Learning Opportunities

Charlotte Baez, Josef Buchner

The digital transformation of schooling requires teachers to engage in professionalisation that goes beyond structured training and incorporates informal, practice-based learning. Previous research conceptualises professional learning along a spectrum from formal, curriculum-based formats to informal, collaborative and self-directed opportunities (Eraut, 2004; Richter et al., 2024). Teachers' perceptions of these opportunities are central, as their evaluations strongly shape both engagement and impact (Desimone, 2009; Guskey, 2002). This study investigates how teachers in Swiss primary schools perceive teacher professionalisation in the field of digital education regarding different formats and the role of various facilitators. Drawing on established frameworks (Darling-Hammond et al., 2017; Kennedy, 2005), we differentiated between more formal formats (e.g., structured workshops) and more informal formats (e.g., peer exchange, social media). Teachers' preferences for facilitators, including colleagues, practitioner-researchers, and external trainers, were also considered. Survey data from an ongoing study with primary teachers was analysed with repeated-measures ANOVAs and correlation analyses. Preliminary findings show that school-based workshops and within-school collaboration were rated significantly more positively than cross-school activities and (social) media-based formats. Additionally, facilitators who combined academic expertise with current teaching experience were preferred over subject experts without school affiliation or higher education experts without teaching practice. The findings underscore the importance of practice-oriented, collaborative formats and facilitators who bridge research and practice. They support sociocultural perspectives on teacher learning and highlight the need to strengthen school-based professionalisation in digital education.

From Data Burden to Culture: Embedding Research Data Management in Universities of Teacher Education

Charlotte Baez, Kristina Ehram, Michael Beck

Research data management (RDM) has become a central challenge in universities of teacher education combining educational research and the education of future teachers. These institutions operate at a complex intersection: while they conduct empirical research, subject to growing expectations for transparency, reproducibility, and openness, they also educate future teachers and supervise student research projects that generate additional empirical data. Within this dual context, RDM represents not only a technical requirement but also a potential bridge between academic and pedagogical cultures, fostering shared commitments to quality, ethics, and sustainability in working with data. Despite its integrative potential, RDM manifests unevenly across the everyday realities of teacher education, reflecting structural differences in how research-active staff, teaching-focused lecturers, and students engage with data. Lecturers who are not actively involved in research engage with RDM mainly through supervising bachelor's and master's theses. Students working with data while writing their bachelor's and master's theses, often lack systematic guidance on how to manage their data. Research-active staff for the most part recognise its importance for transparency and research quality but face heavy teaching loads and publication pressures limiting their engagement with RDM. Consequently, data practices remain inconsistent across institutional roles and rarely receive institutional recognition, despite being crucial for credible and sustainable educational research. Discussion questions: How can RDM be structurally and culturally embedded in institutions that unite research and teacher education? How can students and supervisors develop RDM competences and engage in data reuse? Which institutional networks and communities of practice foster sustainable data practices?

Using Mixed-Methods for educational equity research in schools: an empirical case-study in Italy

Helga Ballardini, Paola Venuti

This empirical research investigates the effectiveness of Italian inclusion policies aimed at adolescents with migrant backgrounds in middle school, in order to explore whether such policies are still adequate to support a structural and non-emergency phenomenon. Using a Mixed Methods design, based on a pragmatic and transformative approach, the study explores contextual factors and thus the regional differences in regulations and practices implemented in different educational settings. To this end, a comparative study was conducted across four schools. The mixed methodological approach allowed for a rich and comprehensive collection of both qualitative and quantitative data, examining the praxis and contexts through the voices of all actors: students, teachers, and families. Standardized questionnaires on perceived inclusion, resilience, and well-being were administered, while qualitative data emerged from participatory ethnographic observation and semi-structured interviews. The data were subsequently triangulated to complete the integration and interpretation phase of the research. The methodological and the reflexive approach (Braun & Clarke, 2021) adopted for the analysis allowed us to highlight both the systemic and the individual factors that impact the quality of inclusive practices. The evidence collected paints a complex and contextual picture, in which effective inclusion practices are configured as dynamic and relational processes which are generated by the contexts themselves rather than a sterile and unmediated application of norms. Results outline quality indicators and action models that can guide educational planning and public policies towards social justice and educational equity. Keywords: Educational equity; Inclusion; Migrant backgrounds; Mixed Methods;

The INCLUSI project: enhancing teachers' training on Inclusion through game-based learning

Helga Ballardini, Fabio Filosofi, Paola Venuti

The aim of the INCLUSI project was to investigate how playful and narrative-based approaches can strengthen teachers' professional collected data from systematic observation and questionnaires during the training sessions across the four project stages, then both qualitative and a quantitative analysis were conducted. A total of 125 participants — including teachers and professionals from schools and community social services — took part. Observations conducted at two points in time (T1 and T2) showed clear progress in engagement, cooperation, and reflective dialogue. Participants demonstrated more active listening, balanced participation, and constructive peer feedback, together with stronger awareness of inclusive teaching approaches. Thematic analysis of teachers' written reflections combined with quantitative linear mixed models (LMM) identified four key areas: social cohesion and trust, collaborative dialogue and problem-solving, professional awareness of inclusion, and empathy in communication. Teachers described the experience as stimulating and relevant, noting that the game's realistic challenges supported collective learning and practical application. Overall, the findings confirm that INCLUSI effectively nurtures inclusive professional competences through experiential and collaborative play. By merging storytelling, interaction, and reflection, the project offers a creative and evidence-based model for teacher education, showing how playful learning can meaningfully enhance motivation, teamwork, and inclusive awareness.

Developing Research Competence through Service-Learning in Undergraduate Final Projects

Allan Baez Contreras Benítez, Carla Quesada-Pallarès

This empirical study analyses how participation in Service-Learning (SL) projects during the Final Degree Project (FDP) contributes to the development of research competences among students in the Faculty of Education at the Autonomous University of Barcelona. Adopting a concurrent mixed-methods design with a predominant quantitative component, the research compared an experimental group ($n = 11$) completing their FDP through SL projects supported by a research logbook, with a control group ($n = 10$) following the traditional pathway. Data collection included pre- and post-test questionnaires adapted from the PR-Comp instrument, as well as interviews with community partners, a focus group with tutors, and analysis of student reflections. Results indicate that participation in SL significantly strengthens several dimensions of research competence, particularly in problem formulation, methodological design, data interpretation, and results communication. Although not all differences reached statistical significance due to the small sample size, descriptive and qualitative evidence show a consistently more positive progression in the experimental group. The study concludes that embedding SL in the FDP can transform it into a powerful device for research training and provides a contextually grounded framework (MRCI-SL) for evaluating research competences in higher education.

OER-based Teacher Professional Development – first results of a mixed methods evaluation study

Berit Breins, Julia Ortwig, Ann-Kathrin Quarda, Michaela Gläser-Zikuda

Educational change in the context of digital transformation increasingly requires self-regulated learning and new formats of professional development. Open Educational Resources (OER) offer such opportunities, enabling flexible and autonomous learning for teachers and school leaders. While teachers view self-regulated learning positively, they rarely use it in practice (Dignath-van Ewijk & Van der Werf, 2012). Research on the challenges and effects of OER in teacher training remains limited (Arispe, Hoyer & Palmer, 2023). Mixed-methods designs appear particularly suitable to address this complexity (Gläser-Zikuda, Hagenauer & Stephan, 2020). This contribution explores institutional needs and expectations toward OER and evaluates an OER-based professional development program. A two-part mixed methods study was conducted. First, a needs analysis including semi-structured interviews with N = 5 representatives responsible for planning in-service teacher trainings highlight the demand for flexible formats, the importance of advisory and networking opportunities, and the challenges of a sustainable integration of self-learning modules. Second, the evaluation of the OER program based on quality dimensions of teachers' professional development (Darling-Hammond et al., 2017; Lipowsky & Rzejak, 2019) and aligned with the DigCompEdu (Redecker, 2017) framework. Pre-post questionnaires focus on participants' motivation, perceived relevance, and individual competence development, complemented by open-ended questions. Data collection with teachers and school leaders is ongoing (September 2025 – January 2026). Findings will be discussed with regard to methodological challenges and implications of implementing and evaluating OER in teacher professional development during digital transformation.

Identifying starting points for prevention of school alienation: The Potential of Network Analyses

Berit Breins, Ann-Kathrin Quarda, Meike Wagner, Michaela Gläser-Zikuda

Repeated and accumulated negative school experiences can result in student alienation and finally dropout. School alienation is defined as a distancing process from learning, teachers, and peers (Hascher & Hadjar, 2018). Alienation is associated with reduced motivation, lower achievement, and higher dropout risk (Finn & Zimmer, 2012). Research suggests that alienation increases in early adolescence, making secondary schools a particularly vulnerable period (Murdock, 1999). While prior research has predominantly used factor-analytic models treating alienation dimensions as independent, network analysis models individual items as interacting elements. This allows to identify central and bridge nodes driving alienation processes. The present study aimed to identify key aspects that could impact school alienation in the validated scale and to verify the quantitative findings with qualitative statements. Data from $N = 1,965$ students in grades 5, 7, and 9 of $N = 38$ German secondary schools were analyzed using Gaussian Graphical Models (EBICglasso, $\gamma = .5$) including stability and bridge centrality. Results indicate that central items across grades referred to teacher–student relationships and the perceived meaningfulness of learning, functioning as bridges between the dimensions. Network strength peaked in grade 7, suggesting a potential developmental tipping point. Mean-level analyses revealed rising alienation from learning and teachers across grades, with alienation from peers remaining stable. Semi-structured student interviews analyzed using qualitative content analysis highlighted negative experiences with teachers and the lack of perceived relevance of instructional topics. Taken together, findings underscore the importance of supportive student-teacher relationships and clarifying the value of learning to counteract alienation.

Participatory methods and modalities in research on activism

Larika Bronkhorst, Paula Ahola, Eliana Bussi, Alfredo Jornet, Monica Lemos, Eleonora Lundell, Antti Rajala, Emmanuella Udom

As global crises intensify and calls for profound societal transformations grow louder, activism has emerged not only as a catalyst for change but also as a site of learning research. The organizers of this workshop understand activism to be necessary for change as well as being a rich ecology for learning. Interestingly, participating in activism as researchers also challenges different aspects of our research practices, as dominant epistemologies are challenged, and inevitably the question pops up: should we observe, adapt — or join the fight? Building on work across diverse cultural and geopolitical contexts, this workshop invites participants to engage with our 'provisional practices' of research participation in activist movements. Don't expect decontextualized answers! Instead, by engaging with these practices, the workshops invites participants to reconsider and co-design research practices in times of upheaval and to critically reflect on the ethical and political dimensions of our scholarly work.

Voicing the Margin: Meaningful Metamorphoses for Upper Secondary Students

Maria Bäcke, Sylvi Vigmo, Elisabet Sandblom, Therése Haglind, Lilly Augustine

Spivak highlights the importance of adding voices from the margin to pluralise mainstream narratives. Using scenarios as a tool for initiating discussion, the projects Good Examples for School Attendance (2025-2026, with school personnel) and Superpowered Narratives (with upper secondary students) attempt to facilitate meaningful metamorphoses in the sense of the voices of students struggling with School Attendance Problems (SAP) being heard. Over the years, the Swedish school system has metamorphosed from a Salamanca point of view, which stresses the right to inclusion, to a PISA stance, championing competence assessment more in line with neoliberal perspectives. This has led to an increasing number of students feeling alienated and choosing to disengage from school and more people question the status quo. Is there a meaningful metamorphosis on the horizon, switching the focus from individual failure and shortcomings to social cohesion and responsibility? With Freire as a steppingstone, the scenarios may show a road towards breaking the oppression and creating hope by giving the marginalised a voice. A growing awareness of the language of metamorphoses may provide tools to ensure that school is a place where young people become a part of, not shut out of, society. In this presentation, our aim is to explore how the use of fictional scenarios may facilitate discussions among school staff on various aspects of SAP, but also how the work on scenarios may give disenfranchised students a voice and set off meaningful metamorphoses.

Playful Self-Learning Boxes as a Flexible and Autonomous Learning Methodology in University Teaching

Anna Ciraso-Calí, Laura Corbella Molina, Paloma Valdivia Vizarreta

This study presents playful self-learning boxes as a response to the current situation in higher education, focusing on promoting autonomous and flexible learning. Implemented in the LuDiTIC project (2022-2024) with 375 students and 6 educators from the Universitat Autònoma de Barcelona, the boxes combine physical and digital materials to create hybrid environments that support self-directed learning. The results, based on a survey of 57 participants (53 students and 4 educators), show a high level of satisfaction with the format, highlighting motivation and creativity as key positive aspects. Additionally, areas for improvement in the clarity of instructions and sustainability of the model were identified. This methodological approach stands out for its ability to integrate soft skills and collaborative work, positioning the self-learning boxes as a transferable tool for future research on flexible and participatory education.

The Entangled Learner: Postdigital Agency in Algorithmically Mediated Education

Jillianne Code

The Postdigital Learner Agency (PLĀ) Framework expands traditional conceptions of agency to address learning in hybrid, algorithmically mediated environments. Building on Social Cognitive Theory, Sociocultural Perspectives, and Postdigital Philosophy, PLĀ conceptualizes agency as relational, collective, spatial, and shared. These dimensions describe how learners act across human and non-human systems while negotiating algorithmic influence and sociotechnical constraints. The framework situates agency as emergent from entangled interactions rather than as an individual trait. It offers a methodological structure for analyzing learners in postdigital contexts by linking theoretical constructs to design, data collection, and interpretation. Researchers can use PLĀ to map multimodal evidence of agency, including discourse, interaction traces, and algorithmic engagement. Educationally, the framework supports the design of equitable, adaptive learning environments that promote ethical awareness and algorithmic resilience. PLĀ provides both a theoretical foundation and a practical tool for investigating how learners critically engage with the digital systems shaping knowledge, identity, and participation.

Emotion-Informed Assessment for Gifted and Twice-Exceptional Learners: Validating the SEO Scale

Carmen Cretu, Sally Reis, Simona Mitrea

The Observational Emotional Scale (SEO) and its derived Emotional Risk Index (IGRisc_Compute) were developed to address the gap in assessing processual and regulatory dimensions of emotional vulnerability among gifted and twice-exceptional (2E) learners, whose affective profiles often diverge from typical developmental patterns (Neihart, 2008; Pfeiffer, 2012). Reliance on IQ-based identification perpetuates systemic false negatives, excluding up to 60% of 2E learners whose giftedness is masked by comorbidities (e.g., ADHD, Dyslexia, Dysgraphia, Asperger) and emotional intensity (Mitrea, 2025). The SEO counters this bias through structured observation of affective regulation, quantifying emotional signals often misinterpreted as behavioral or disciplinary issues. This single-paper study—embedded within a broader symposium on risk prediction in high-ability populations—validates the SEO's psychometric structure, providing an evidence-based framework for emotional assessment in gifted education. Data from 818 students (ages 6–17) supported a three-factor model explaining 47.4% of total variance ($KMO = .684$; $RMSEA = .071$; $TLI = .93$), interpreted as Cognitive–Giftedness, Emotional–Processual–Anticipatory, and Verbal–Reflexive dimensions (Renzulli, 2021; Sternberg, 1999). Internal consistency was strong ($\alpha = .76–.83$). The validated SEO offers a psychometrically robust and ecologically valid model for quantifying emotional dynamics in gifted and 2E profiles. It supports predictive modeling, longitudinal monitoring, and emotion-informed identification practices. By aligning emotional literacy with gifted assessment, the SEO contributes to realising learners' potential through education, embodying EARLI's 2025 vision of shaping adaptive, emotionally balanced minds for the future.

On Access, Transparency and the Value of Data: the example of driving simulator instruction in VET

Giulia Messina Dahlberg

By setting the spotlight on the intricate relationship between form, content and outcomes in data-driven educational practices, this paper explores the nuanced dimensions of value creation in such practices. A series of illustrative examples that deal with the use of data-driven tools to perform and deliver certain tasks are used to discuss the negotiation of standards during instructional interaction, as well as the cultural boundaries between epistemic and non-epistemic knowledge. More specifically, examples from driving simulator-based instruction in a Natural Resource Program show the complex alignment with set standards in practices of assessment and feedback. This paper investigates political and ethical aspects of data value creation and the need for a meta-perspective that attends to the delicate issues of access and transparency of data in educational practices. Furthermore, the paper argues for processes of data creation and evaluation that stay close to its users in space and time. By keeping the value of data bound to its context, we avoid the pitfalls of tools' market-orientation, and we create conditions for the understanding and theorization of data-driven educational practices.

Designing for embodied learning of academic literacy

Nina Bonderup Dohn, Robb Mitchell, Pat Treusch

The aim of this theoretical paper is to critique the currently prevalent educational practices within higher education, aiming at developing academic literacy, and to discuss how we might organize learning differently in better support hereof. The critique takes its point of departure in the central insight stemming from phenomenology (Merleau-Ponty, 1962) that we as embodied beings have bodily incorporated understandings of the social practices we engage in. We follow Gee's (2015) sociocultural understanding of literacy as participation in societal Discourse. Academic literacy is therefore participation in the societal form of Discourse found in universities and higher education. The literature on academic literacy – and the fostering hereof – focuses primarily on academic practices of writing, and, to a lesser extent, also on orally presenting, discussing, providing constructive feedback etc. (Lea & Street, 2006). That is, it focuses on the intellectual practices of academia, as that which is written – and said – and the appropriation, production and critique hereof. This ignores the question of how the physical environments and the students' bodily activities themselves support or hinder student learning of participation. To remedy this oversight, and building on examples from design teaching, we present a framework of design considerations for supporting the embodied learning of academic literacy.

Gee, J. P. (2015). *Social Linguistics and Literacies: Ideology in Discourses* (5th ed.). Routledge.

Lea, M. R., & Street, B. V. (2006). The "Academic Literacies" Model: Theory and Applications. *Theory into practice*, 45(4), 368-377. https://doi.org/10.1207/s15430421tip4504_11

Merleau-Ponty, M. (1962). *Phenomenology of perception*. Routledge and Kegan, Paul.

The Pedagogical Approach to Territories: A Theoretical–Practical Paradigm in Educational Research

Valerio Ferrero

This paper proposes the "pedagogical approach to territories" as a theoretical-practical paradigm in order to rethink and re-signify educational research in its intertwining of knowledge, ethics, and justice. Grounded in a critical-hermeneutic and epistemological perspective, it explores how education produces and legitimises knowledge, relationships, and spaces of possibility. In dialogue with intercultural and decolonial studies (Guilherme, 2019; Mignolo, 2017; 2020; Zembylas, 2023), the paper recognises territories as epistemic places that are dense with stories, powers, and plural languages, where tensions between centre and margin, visible and invisible, universalism and locality are articulated (Champollion, 2015; Haesbaert & Halvorsen, 2025; Heritage, 2012). Thus, the "pedagogical approach to territories" becomes a research lens that reveals these dynamics and guides the shared construction of situated knowledge, based on mutual recognition and epistemic responsibility through an authentic "culture of places" (bell hooks, 2008). Teacher education is the ideal place to put this paradigm into practice, encouraging the development of reflective, dialogical, and critical attitudes aimed at transforming the educational relationship into an act of equity (Badger & MacDonald, 2007; Kubota & Motha, 2025; Phelan, 2001). Ultimately, the paper calls for an ethically grounded and socially engaged conception of educational research, in order to bridge theory and practice to create equitable, plural, and democratic learning environments within broader territorial ecologies.

Building Inclusive Minds: Comparing Teacher Training and the Construction of Professional Efficacy.

Fabio Filosofi, Michelina Valenza, Anna Serbati

Building on previous research on pre-service teachers' representations of disability and professional self-efficacy, this study aims to explore how different teacher training pathways influence attitudes, beliefs, and perceptions of inclusion within Italian schools. The research will compare two groups of educators: (a) teachers who completed the Specialization in Special Education, and (b) teachers undertaking the new Teaching Qualification pathway. In particular the study seeks to investigate how these distinct professional trajectories shape individual self-efficacy and collective efficacy thus influencing teachers' representations of disability and inclusion. While previous findings highlighted pre-service teachers' emotional ambivalence—oscillating between empathy and insecurity, collaboration and isolation—this comparative design will examine whether in-depth collective training, and reflective practice could translate into varied conceptions of inclusive competence. A mixed-method approach will be adopted: quantitative data (using the Teacher Efficacy for Inclusive Practices – TEIP) will be complemented by qualitative content analysis of open-ended responses and focus group discussions. The analysis will explore correlations between training experiences, perceptions of contextual barriers, and the sense of professional and collective responsibility in inclusive education. Expected outcomes include identifying specific factors enhancing teachers' professional identity, collaborative culture, and systemic approaches to inclusion. By comparing these two cohorts, the study aims to inform the ongoing debate on teacher education reform in Italy, offering empirical evidence on how different qualification models can foster (or limit) inclusive attitudes and practices within school communities.

The teacher-student-relationship mirrored in the teacher's eyes

Sarah Forster-Heinzer, Silja Rohr-Mentele, Yannick Sottas

Classroom situations build upon social interactions. In classrooms, the teacher-student relationship (TSR) is a core social construct that emerges from these interactions. TSRs are linked to students' achievement, motivation, and engagement and positively affect teachers' well-being and emotions. Although eye-tracking studies in authentic classrooms are scarce, understanding gaze behavior is crucial for analyzing classroom social interaction and, by extension, teacher-student relationships. Our aim is therefore to better understand the relationship between teachers' gaze behavior and the quality of TSR. For this purpose, a mixed methods approach is used to explore the association between the TSR – understood as a dyadic relationship including positive as well as negative dimensions – and the gaze behavior of teachers. Based on the attachment theory, students filled in a questionnaire on three dimensions of their dyadic relationship with the teacher (emotional closeness, cognitive closeness, conflict). Additionally, during 12 authentic teaching lessons (approximately 45 minutes per lesson), 11 teachers wore mobile eye-tracking glasses (Tobii Pro Glasses 2) while teaching a total of 179 students. Significant correlations were found between the teachers' gaze patterns and observed relationship dimensions, indicating that students who report an emotional stronger relationship to their teacher seem to receive less gaze attention whereas students that report a more conflicting relationship receive more gaze attention. This points to the potential of utilizing eye-tracking technologies to study a very important aspect of social interaction. Further data analysis is ongoing and will be discussed in detail during the presentation.

Exploring the Interpretation of Social Network Graphs

Dominik E. Froehlich, Florian Hauser, Timur Ezer, Jürgen Mottok

In an era of rapid digital transformation, educators and researchers increasingly rely on visual analytics to navigate complex learning environments. Social network analysis (SNA) graphs are often promoted as intuitive tools to represent collaboration, communication, and knowledge exchange. Yet, little is known about how non-experts actually interpret such visualizations without expert guidance. This study investigates how individuals from different professional backgrounds—teachers, business consultants, and laypersons—understand and reason about social network graphs. Drawing on 200 think-aloud protocols, we conduct an inductive qualitative content analysis to identify interpretative strategies and focal points used during graph comprehension. Preliminary insights suggest that while participants intuitively attend to central nodes and clusters, they often misinterpret size, color, and edge density, leading to systematic misconceptions about influence and structure. By uncovering these interpretative patterns, the study contributes to a methodological metamorphosis in the use of visual tools for learning and instruction. It emphasizes the need for more transparent, educationally grounded graph designs that empower users to engage critically with network data. These findings carry important implications for teacher education, data literacy, and the responsible use of automated SNA-based tools in educational research and practice—ultimately fostering more meaningful and equitable engagement with visual knowledge representations in times of change.

Voice-Based Surveys in Mixed Methods Data Collection

Dominik E. Froehlich

Digital data collection in education increasingly relies on online surveys for scalable qualitative insights—yet text boxes on mobile devices often elicit terse answers. We examine voice-based surveys (self-administered, asynchronous audio responses with automatic transcription) as a potential middle ground between written surveys and oral interviews. In a randomized mode experiment with $N=98$ higher-education students (Vienna, Austria), participants answered four open-ended questions on academic procrastination either by voice ($n=28$) or text ($n=70$). We compared participation and completion, time-on-task, response length, and qualitative content (thematic analysis). Results indicate a trade-off: voice mode yielded lower initial uptake ($\sim 42\%$ vs. $\sim 59\%$) and slightly lower completion (88% vs. 98%) but substantially richer responses (≈ 97.5 vs. ≈ 21.7 words per answer) and faster completion ($\approx 5:08$ vs. $\approx 5:57$). Thematic analysis showed high content overlap ($\approx 66\%$ of 277 unique themes shared) with greater thematic density per response in voice (≈ 8.07 vs. ≈ 3.36 codes). Thus, voice surveys preserve substantive comparability with text while improving depth and efficiency per respondent. We discuss methodological implications for mixed-methods designs (e.g., scaling qualitative inquiry, triangulation) and practical guidance for educational contexts (participant willingness, accessibility, privacy, and UX). We position voice-based surveys as a methodological metamorphosis that can make qualitative evidence more inclusive, scalable, and instructionally meaningful—while acknowledging participation and implementation challenges.

Teachers' Emotional Labor in Culturally Diverse Classrooms

Lara Fuchs, Gerda Hagenauer, Andreas Gegenfurtner

Cultural diversity poses a defining feature of Austrian classrooms, with one-third of students speaking a language other than German in their daily lives (STATISTIK AUSTRIA, 2024). This diversity presents unique emotional challenges for teachers, requiring them to engage in emotional labor, i.e. the regulation and expression of emotions to meet professional expectations (Hochschild, 1983). Emotional labor involves surface acting (i.e., hiding or faking emotions), deep acting (i.e., internalizing desired emotions) (Hochschild, 1983), and modulated acting (i.e., strategically adjusting authentic emotions), as well as adherence to feeling rules (i.e., expected acceptable emotions) (Horner et al., 2020). However, limited research has explored how teachers employ these strategies in CDC. This study addresses this gap by investigating (1) how emotional labor manifests in CDC and (2) the role of feeling rules in this context. Using an exploratory qualitative approach, 25 semi-structured interviews with middle school teachers (grades 5-8) were analyzed through qualitative content analysis (Mayring, 2022). Findings reveal that teachers often suppress negative emotions, such as anger or sadness, to avoid retraumatizing students. Further, teachers report refraining from expressing emotions they do not genuinely feel, as students in CDC are very aware of faking. Teachers also navigate conflicting feeling rules, balancing societal expectations (e.g., anxiety) with their own values (exhibiting positive/pleasant emotions). These findings extend emotional labor theory by highlighting the cultural dimensions of emotional expression in CDC and underscore the need for targeted supervision programs to support teachers in managing these challenges.

Promoting Student Teachers' Bias Awareness: An E-Learning Intervention

Noa Gadow, Meike Bonefeld

Student teachers in Germany have been found to hold biases against certain student groups, such as male students with a migration background or those from low socioeconomic backgrounds. One potential cause of such biases are teachers' implicit stereotypes. These can distort expectations and negatively affect student performance, thereby (re)producing educational inequalities. Reducing the impact of implicit stereotypes requires that teachers become aware of their own susceptibility to bias – a process known as bias awareness. However, few studies have examined student teachers' bias awareness in the German-speaking context. Existing findings indicate a moderate level of bias awareness. They also show that student teachers often believe they are hardly influenced by bias in their teaching practice. Pilot studies suggest that bias awareness can be effectively increased through interactive “lightbulb moments.” These exercises illustrate how unconscious thought patterns can influence judgment. Building on these studies, the present quasi-experimental study used a pre-post-follow-up design with intervention and control groups to examine changes in bias awareness following an interactive e-learning version of Bonefeld's (2022) workshop. The intervention promoted bias awareness via “lightbulb moments”, while the control group completed a comparable e-learning on teacher-student interaction. Mixed ANOVAs revealed that general bias awareness increased significantly from pre- to post-test in the intervention group compared to the control group ($F(2, 140) = 3.51, p = .017, \eta^2p = .048$). Implications for designing interventions to enhance bias awareness are discussed.

AI-Mediated Metamorphoses in Student Mental-Health Support: An Interaction-Centric Model

Chengzhe Guo

This study presents an interaction-centric, AI-mediated model to restructure university student mental-health support by activating peer and academic-staff micro-interventions. Using a design-based research approach, the model employs explainable, calibrated algorithms with interpretable thresholds and preregistered process targets to process privacy-preserving structural interaction signals (metadata only)—for example, LMS pacing variance, missed micro-deadlines, and forum reciprocity indices—to detect early signs of distress. Validated signals drive a human-in-the-loop pipeline in which peer-to-peer and tutor–student actions form the primary response layer; escalation to counsellors occurs only under explicit, dynamic, and revocable consent with role-based permissions. The governance framework prioritises data minimisation and regular fairness audits. The intended metamorphosis is a shift from a centralised, reactive service to a proactive, distributed support network that strengthens student agency within everyday instruction. Evaluation will track reduced help-seeking latency, higher uptake of peer and tutor support, and a verified low false-positive burden, without inflating staff workload. Keyword: Interaction analytics, Human-in-the-loop, Student mental-health support, Early-warning-to-action pipeline, Privacy-preserving structural signals, Student agency

The Nature of Pedagogic Networks in Dutch Secondary Schools

Jiao Harmsen, Maria de Haan, Pomme van de Weerd, Semiha Bekir

Pedagogic networks involving teachers, parents/caregivers and community members are recognised as vital to the development of adolescents. At the same time, pedagogic networks have become less cohesive and more individualised (De Winter, 2012). In response to this, some secondary schools have invested in the formation of community in their schools. Building on a Communities of Practice and Funds of Knowledge perspective, the study asks: (1) What is the nature of these pedagogic networks? (2) What motivates these pedagogic stakeholders within and beyond the school to collaborate? This study is based on empirical fieldwork conducted in ten Dutch secondary schools. At each school, interviews were conducted with school board members and teachers, and their school documents were analysed. Findings indicate that teachers and school board members experience a tension between the involvement of pedagogical actors beyond the school and a focus on school grades and performance. They regard the involvement of the by them identified pedagogical actors essential for students' learning, development and wellbeing. However, although they recognise the pedagogical value of such collaborations, they find it challenging to integrate them within school's daily demands. Our results showed that pedagogical collaborations can be divided in two categories: 1) collaborations in which pedagogical actors have well-defined roles and a continuous presence, and 2) temporary, variable and ad hoc collaborations in which the presence and role of pedagogical actors vary. Differentiating between these categories of pedagogical collaborations can provide insights for innovating school policies directed at strengthening their community-and-family alliances.

Boundary Crossing in joint publications between researchers and practitioners

Anna Heinemann, Katja Buntins

This contribution explores joint scientific publications between researchers and practitioners as manifestations of shared agency and metamorphosis in the production of educational knowledge. Based on a bibliometric analysis of 5,429 international publications (2020–2025) indexed in Scopus that include both academic and school-based affiliations, and a survey among 97 German-speaking co-authors, the study examines how such collaborations emerge, what motivates them, and which tensions they reveal. Findings indicate that co-authorships often arise within project-based or personal networks rather than institutionalised frameworks. While practitioners emphasise classroom innovation and professional learning, researchers focus on knowledge generation and scientific visibility. Despite mutual appreciation, structural asymmetries persist. Co-authorship thus becomes a micro-site of educational metamorphosis, where boundaries, professional identities, and epistemic norms are re-negotiated. For this presentation, data is still being collected from China, the US, the UK, Turkey, Japan, and Morocco, which are important representatives of these collaborations, in order to enable cross-cultural comparisons.

Diversity as a Practice: The role of teacher beliefs in shaping agency for inclusive education

Nika Henriksen, Albert Logtenberg, Hanna Westbroek, Fred Janssen

Increasingly diverse classrooms call for teachers to act as agents of change in ensuring inclusive educational environments and practices that support social justice. What actually happens into practice is informed by teachers' beliefs about how to accommodate sociocultural differences in society. This study provides a practice-oriented view on how teacher beliefs inform their inclusive practices, by combining different typologies of multiculturalism with the sociological concept of everyday multiculturalism. These concepts were used to analyse semi-structured laddering interviews with eight expert secondary school teachers working in multicultural settings. Seven themes emerged relating to action-related goals that teachers mentioned to have developed in their practice, which appeared to be primarily informed by a combination of liberal and critical multiculturalist views. This study presents a model that supports teachers to further develop their practice in which they use difference as a source of learning.

Re-signifying Community Resources: Children's Agency in Territorial School Activities

Viviana Hojman

This paper presents findings from Vías Ciudadanas, a collaborative research project carried out in three Chilean public schools located in peripheral and stigmatized territories. The study examined how children, teachers, and families co-designed territorial school activities, such as mapping walks, to identify and re-signify community resources. The preparatory phase—specifically, the stage in which participants defined which resources would be mapped—emerged as a site of situated learning, collective reflection, and new forms of agency. Grounded in cultural psychology, the study combined the perspective of Cultural-Historical Activity Theory (Engeström, 2009; Engeström & Sannino, 2011) with Valsiner's semiotic emphasis (2014), while also responding to recent global calls to reimagine education as a shared social contract (UNESCO, 2021). Data included field notes and committee meetings, which were analyzed with attention to semiotic processes and intergenerational exchanges. Findings show that children identified resources that at times diverged from those valued by adults and re-signified them as mediators of belonging, identity, and citizenship, thereby challenging stigmas commonly associated with their neighborhoods. Teachers and families recognized the educational value of intergenerational participation, while also facing tensions between school efficiency and inclusive dialogue, and between institutional routines and community-driven initiatives. The study contributes theoretically by framing territorial school activities as a form of citizenship learning rooted in local practices. Educationally, it highlights how the design phase of such activities can foster children's agency as emerging citizens, while simultaneously supporting socioemotional development and strengthening school–community connections.

AI-Generated Images in Additional Language Acquisition for Adults with Special Learning Difficulties

Ellie Horgan

This study aims to explore the significance of AI-generated images in aiding vocabulary acquisition amongst adults with specific learning disabilities (SLDs), who tackle cognitive challenges such as impaired working memory and phonological processing. With a mixed-factorial design, 50 participants (25 Non-SLD, 25 SLD) were recruited to complete two memory tasks: text-only condition + AI-generated image condition, using Catalan word sets with DALL-E generated visual aids. Catalan was chosen to highlight AI's potential to aid underrepresented languages with limited SLD-specific learning tools. Results showed that with AI-generated aids participants performed significantly better in recall accuracy scores (Mdn =15.0 v.s. 13.0 for text-only; p

Emergent Mixed Methods Designs: Navigating Complexity in Dynamic Research Contexts

Hanna Huber

This paper explores the potential of emergent mixed methods designs to address complex and evolving research contexts. To illustrate the practical implementation of such designs, the paper draws on a two-year interdisciplinary study of the video&filmtage youth filmmaking festival in Vienna (2024-2025). This case study combined qualitative and quantitative methods – including participant observation, semi-structured interviews, film analysis, quantitative programme analysis, and a filmmaker questionnaire – to investigate the working practices, organisational structures, and thematic choices of youth filmmaking in supervised versus independent contexts. Weekly research diaries were utilised to document the iterative development of the research process, facilitating reflection on methodological actions and adaptations. These included incorporating new methods, adapting the research design to external circumstances, transforming qualitative data into quantitative data, using quantitative data as a framework for qualitative analysis, refining research questions, balancing less productive methods, using contradictions and tensions as sources of insight, and inducing feedback loops with the research field. The paper argues that emergent mixed methods designs are uniquely capable of aligning with the evolving needs of the research field and questions. This adaptability is particularly valuable in addressing the volatility of contemporary educational, social, and political landscapes, offering a robust approach for navigating dynamic and complex research environments.

Interactive Methods in Integrated Science Education: A Case Study of New Curriculum in Azerbaijan

Saida Jahangirova, Arzu Asgarli, Masma Jalilova, Sevgi Turan

The content of the natural science subject is based on the integration of various scientific disciplines and requires a comprehensive approach. The purpose of this study is to examine the use of interactive teaching methods by teachers in the teaching of the 6th-grade natural science subject to ensure interdisciplinary integration, as well as to explore the role of these methods in the implementation of such integration. The study was conducted using a qualitative methodology, and data were collected through interviews and classroom observations involving selected teachers from a public secondary school. Three science teachers in same school with different pedagogical experiences participated in the research. The analysis revealed that although teachers generally have a positive attitude toward interactive teaching methods, their application is mainly limited to “question-and-answer” and “individual participation” formats. Methods based on interaction and collaboration, such as group work, are rarely used. Interdisciplinary integration is most frequently observed with geography and mathematics, while integration with other subjects is relatively weak. The findings of the study indicate that teachers need methodological support and resources to ensure the purposeful and systematic application of interactive teaching methods and to enhance interdisciplinary integration.

Learning Processes of Democratic Participation in Café and Bar Parliaments

Antti Jauhiainen

My research examines bar parliaments—long-standing informal groups meeting in cafés, bars, and gas stations across Finland—as overlooked sites of democratic participation and informal learning. These groups, often gathering daily or weekly for years, engage in collective discussion of current events and local issues without organizational structure or formal goals. Despite their prevalence, bar parliaments have not been systematically studied in Finland, and little is known about their potential role in cultivating democratic agency. The study adopts an ethnographic and cultural-historical activity theory (CHAT) approach to analyze how participation and agency are enacted in these everyday encounters. Data collection combines participant observation, group and individual interviews, focus groups, participatory photography, fieldnotes, and archival materials. The analysis focuses on three research questions: (1) how, if at all, bar parliaments can be characterized as democratic participation, (2) how members learn democratic practices through their activity, and (3) how agency manifests at individual, communal, and societal levels. The findings provide novel insights into how democracy is practiced and learned informally outside institutional arenas. My work advances research on adult learning, democratic participation, and agency while contributing to broader debates on sustaining democracy in times of polarization and declining civic trust.

A Systematic Literature Review on University Students' Expectancy-Value-Cost Profiles

Henriikka Juntunen, Anna Widlund, Jaana Viljaranta, Pinja Tähti, Heto Tuominen

The situated expectancy-value theory is a prominent theoretical framework for explaining students' differences in achievement motivation. Applying a person-oriented approach to the study of university students' expectancy-value-cost motivation offers a promising way of looking at the similarities and differences in the motivational mindsets students display in the demanding educational context of higher education. In this study, we review the findings of 11 studies addressing university students' subjective expectancies, value beliefs, and costs, that have applied a person-oriented approach, to explain 1) the kinds of expectancy-value-cost patterns that can be identified among university students, 2) differences between students in the development of expectancy-value-motivation over time, and 3) the kinds of implications the diverse expectancy-value patterns have. Motivational profiles could be categorised into six different types of patterns. The empirical findings showed students' motivation to be highly stable over time and different motivational mindsets to be significant in terms of academic outcomes. Based on the systematic review, we conclude that a person-oriented approach offers valuable insights into understanding university students' motivations and the differences, as well as similarities, between higher education students. This systematic review contributes to the theoretical, methodological, and practical debates regarding university students' expectancies, values, and costs and calls for further empirical research as well as theoretical discussions.

Women's Voices in Methodological Learning: A Feminist Thought in Education Research

Aida Kairienė

The aim of this research – to explore how female education researchers incorporate feminist thoughts into learning research methodologies. Twenty early-career female researchers participated. The research was conducted using semi-structured interviews (Adams, 2015). This study is based on Jackson and Mazzei's (2023) 'thinking with theory' approach and feminist theories such as Donna Haraway's (1991) cyborg theory and Rosi Braidotti's (1991) woman's nomadic subjectivity. Also, the transformation as Deleuze and Guattari's (2004) 'becoming women' is highly disclosed in this research. The findings reveal that women integrate their feminist thoughts through learning research methodologies and develop them in a rhizomatic, unpredictable way. Braidotti's (1991) nomadic subjectivity is evident when female education researchers engage in diverse and shifting roles: not only as early-career researchers but also as learners, practitioners, critics, and collaborators. Haraway's (1991) cyborgian practices of hybridity are evident when female researchers utilise AI or demonstrate themselves as superior to men in a technological context. This research shows that women incorporate feminist thoughts into learning research methodologies. Furthermore, the findings have both theoretical and methodological significance. Theoretically, they disclose features of post-structuralist feminist theory, such as Rosi Braidotti's (1991) notion of a woman's nomadic subjectivity and Donna Haraway's (1991) cyborg theory. In practice, when female education researchers apply feminist thinking, they create new approaches to learning research methods – for example, by using feminist and post-structuralist examples or by highlighting women's work with advanced technologies.

Children's social competence in times of crisis: ecological factors amid COVID-19

Lassi Kannel, Eija Räikkönen, Maarit. Alasuutari

The COVID-19 pandemic brought abrupt changes to children's everyday environments, offering a unique lens on how early social development adapts during uncertain times. This study examined how individual and family-related factors, as well as absence from education, relate to the social competence of 5-year-old children during the 2020 lockdown. Drawing on Bronfenbrenner's ecological framework, survey data from 1451 parents were analyzed using path analysis. Findings revealed that child's gender, health or developmental issues, parental psychological distress, and parent's gender were significantly associated with children's social competence. Absence from education, however, was not. The results highlight the interdependence between individual, familial, and contextual dimensions of children's social development, especially in times of disruption. This study contributes to understanding how educators and families can sustain children's socioemotional growth and wellbeing under rapidly changing social conditions while emphasizing the need for resilience, equity, and sensitivity in educational responses to crises.

Meaningful Metamorphoses: From GenAI-use to redefining the teacher as a learning guide

Lena Maria Kesting, Jonas Kamp

In times of accelerated technological change in times and the emergence of quaternary media, educational practice faces the challenge of navigating between automation and human connection. Within this equation are students with “superdiverse” biographies, who have a greater need for human contact at school than ever before. The rise of generative artificial intelligence (GenAI) fundamentally reshapes teaching and learning processes – raising new questions about efficiency and acceleration. This contribution explores how educators can enact meaningful metamorphoses by reconfiguring their roles from knowledge transmitters to learning guides within GenAI-supported environments. Drawing on recent findings on teacher workload and digital stress, we argue that while AI transforms the outer dimensions of teaching (e.g., preparation, feedback, organization), the corresponding inner transformation – toward relational, inner development, and role-based professionalism – remains essential. Using Scharmer’s Theory U as a theoretical lens, we conceptualize this transition as a process of presencing, in which teachers suspend routines, sense emerging needs, and embody new forms of pedagogical practice. We propose that this shift represents a meaningful metamorphosis for teachers: a move from instructional control to co-creative learning facilitation that prioritizes human connection and responsiveness. This contribution highlights how navigating learning and instruction “in and for times of GenAI” requires educators to transform not only their tools, but also their professional being.

Social Justice and Self-Efficacy in Music Teacher Training Studies: Developing a Framework

Katja Kleyensteuber

While social justice (Ryan, 2020), critical pedagogy (Abrahams, 2005), culturally responsive teaching (Gay, 2002), artistic citizenship (Bradley, 2018), and anti-bias education (Derman-Sparks, 2010) have become more prominent research topics in music education over the last few decades, the literature and research in other areas of focus, such as social justice in music teacher training and the prospective utilization of social justice pedagogy in music education, should be expanded. My research regarding social justice in music teacher training has provided the background for the development of a social justice pedagogy framework for music education. This framework is designed to be applicable for use in differing music teacher training systems/curricula, with the goal to further develop it as a resource that can be utilized at varying levels of music education, and education in general, in and outside of the university.

Anti-Bias Practices for Educators: Meaningfully Advancing Student Agency in the Classroom and Beyond

Katja Kleyensteuber

This workshop will focus on exploring anti-bias practices and their place in education to encourage participants to think about how they can be used to meaningfully advance student agency in the classroom and beyond. Many educators may already be unknowingly using anti-bias practices, may be interested in using them but do not know where to begin, or may be unaware that their current teaching practices might actually be hindering meaningful student participation. Anti-bias practices can help educators affirm student identity, bring awareness to diversity, advocate for justice, and take action to make sure all students have a sense of agency. These anti-bias practices are important and can be applicable to all educators – whether currently teaching in their own classroom, teachers in training, or teacher educators.

Breaking the Hope-Hype-Disappoint Circles of Technology Integration to School

Yifat Kolikant, Omri Hadar

Over recent decades, education systems have repeatedly sought a “digital fix”—hoping that integrating new technologies would solve systemic problems and modernize teaching. Instead, each new technological player (e.g., personal computer, social media, EdTech industry) generated a cycle of hope, hype, and disappointment (Gouseti, 2010). We now stand at a transitional moment between two waves of technological promise in education. Following a decade of enthusiasm surrounding the EdTech industry, attention is rapidly shifting toward Generative AI. Is this too a cycle that will end in disappointment? We argue that the recurrence of these cycles results from schools' lack of a vision for the desired human-technology intellectual partnership. The current partnership is shaped by the current “school grammar,” whose essence is (a) what Perkins (1993) called the “person-solo” epistemology, that knowledge should ultimately reside in the individual, detached from context; and (b) an information-focused agenda that entails teacher-centered practices. Such epistemology confines technology to the margins of schooling and sustains recurring disappointment. Without a clear vision, it is unsurprising that many technological tools, including recently developed AI-based tools, maintain traditional educational goals and teacher–student roles, offering mainly efficiency gains or individualized pacing rather than pedagogical renewal. Breaking this cycle requires rethinking the human–technology intellectual partnership in education and expanding beyond the person-solo epistemology to allow environments that nurture this partnership. External saviors will not deliver a meaningful metamorphosis. Rather, the education system must define the pedagogical vision first and then seek technological means to support student-centered, knowledge-generative learning.

Learning in Times of Change. A Spiral and Cyclic Process Model for Meaningful Development

Christian Kraler

Learning on all levels is intertwined with societal, ecological, technological and economic developments. In times of rapid change, established learning concepts and education itself need to be revisited and questioned. Both individual and collective learning processes are dynamic and transformational phenomena essential for addressing these challenges and shaping a sustainable future. This paper introduces an integrative, cyclic, and process-oriented spiral model of learning, emphasizing the transformative nature of learning at both micro (individual) and macro (societal) levels. Drawing on foundational theories from Ebbinghaus (1885), Whitehead (1929), Bruner (1960), and Havighurst (1972), the model incorporates insights from sociology (Rosa 2019) and anthropology (Gendelin 2017) to explore how learning evolves through cycles of growth, stabilization, and transformation. The model is built on the concept of learning curves, where plateaus represent periods of stabilization achieved through effective practices and habits. While plateaus initially support learning, they eventually lead to stagnation, requiring transformative interventions—such as disturbances, trial-and-error, or innovative approaches—to initiate a new cycle of growth. This transformation is not merely about optimization but involves deepening understanding and expanding knowledge, as represented by Bruner's spiral model. The spiral's diameter reflects the scope of learning, which can expand, stabilize, or contract depending on societal contexts and external influences. By modelling learning processes as iterative and transformative, the framework provides a tool for analysing and guiding necessary changes at individual, collective, and societal levels. This approach enables the evaluation of potential actions and their contributions to successful transformations, fostering a future worth living for all generations.

Metamorphosis in school development as a driver for innovation. The example of the European Schools.

Christian Kraler, Selina Silian, Sabrina Bacher, Sarah Bachlechner, Claudia Schreiner

This presentation examines the development of the European Schools (ES) and Accredited European School (AES) system by reconstructing specific processes of metamorphoses (abrupt or gradual transformations in form, structure, or function during development). In the context of formal education, we suggest that single metamorphoses, initiated by diverse tipping points, can catalyze fundamental transformations in school development processes. Considering the inherent viscosity of educational systems, such metamorphoses offer significant innovation potential, fulfilling one of the two core functions of education: promoting innovation while simultaneously reproducing social structures for stability and continuity. The study aims to identify tipping points in the ES system and in Austria's first AES, the AES-Tyrol, enabling analysis of innovation potential at both macro (European) and micro (regional) scales, while highlighting "glocal" interconnections. Data sources include four waves of 28 interviews, quantitative administrative data, and official EU and national documentation. Using qualitative and quantitative analyses, we created two development timelines illustrating key processes, actors, and content transformations. Preliminary findings indicate critical tipping points at both levels: globally, the foundation of the first ES in Luxembourg and the subsequent introduction of AES; locally, policy decisions, visits to ES Mol, and the consolidation of school locations in Tyrol. These events triggered metamorphoses that reshaped the system, creating innovative pathways in European and Austrian education. Importantly, interactions between macro- and micro-level developments demonstrate reciprocal influences, whereby top-down and bottom-up processes collectively drive systemic innovation.

Addressing Challenges in Transdisciplinary Collaboration using Socially Shared Regulation

Sascha Van Kuppeveld, Marca Wolfensberger, Peter Verkoeijen

Solving complex societal problems requires transdisciplinary collaboration of actors from various domains of expertise. However, sometimes differences between participants are difficult to bridge and can cause challenges in collaboration, e.g. unequal input or miscommunication. Without effective management of these challenges, creation of effective solutions will be hindered. Transdisciplinary collaboration requires training in transdisciplinary learning environments (TDLEs), in which regulating learning is essential for managing the challenges. Regulation comprises a process of goalsetting, planning, performance with monitoring and adjustment, and evaluation influenced by individual and group conditions. Socially Shared Regulation (SSR), in which a group jointly regulates, is particularly important in TDLEs, because it is associated with better outcomes and satisfaction. Yet, SSR remains underexplored in TDLE's: little is known about challenges, actions, and conditions influencing SSR. The exploratory research was conducted within a TDLE in higher education. Thirteen students filled out a questionnaire about challenges and subsequent actions (AIRE) and nine students participated in semi-structured interviews about SSR-influencing conditions. Questionnaires were analysed with descriptive statistics. Interviews were deductively analysed. Different working styles and different amounts of participation were the most experienced challenges. Shared regulation occurred more frequent in challenges in task distribution or progress and maintaining group contact than in repetitive or social challenges, like unequal contribution. Occasionally, teacher support preceded joint regulation. Beliefs about self, group or school, previous (group) experiences, lack of effectivity and (un)familiarity influenced SSR. Insights from this research contribute to development of SSR-enhancing interventions in TDLEs in higher education.

Finding common ground in collaborations among higher education students

Mayra Mascareño Lara, Nienke Renting, Lucie Ostendorf

Establishing common ground—a shared understanding of the group and task objectives—is fundamental to successful collaborative learning. This process involves the explicit and iterative articulation of individual and collective goals, expectations, norms, and values. This articulation goes hand in hand with processes of building interpersonal trust and group cohesion. However, in contemporary higher education, collaborative tasks often prioritize efficiency over the social foundations of collaboration, leaving little time for the negotiation of common ground and building trust. The LudiCo project, a Scholarship of Teaching and Learning (SoTL) initiative, examines how common ground and interpersonal trust are cultivated in higher education to better support collaborative learning. This paper presents two sub-studies investigating this process: Sub-study 1 explored how students develop common ground during a playful collaborative task, comparing open-ended and restricted task structures. Findings indicate that common ground is not a static starting point but a dynamic process shaped through dialogue and meaningful interactions with the task and materials. Sub-study 2 analyzed students' self-reported experiences (via audio diaries) during collaborative activities in their courses, supplemented by interviews. Preliminary results reveal challenges in articulating expectations and highlight the role of pre-existing trust—often rooted in prior familiarity—in facilitating common ground. Together, these studies underscore the necessity of explicit facilitation and structured opportunities for grounding in collaborative learning. Without such support, students may struggle to align their expectations, diminishing both the productivity and satisfaction of their collaborative efforts.

Procedural Learning and Transfer of Motivation in Heavy Industry Multi-User Virtual Reality Training

Lauri Lehtonen

Industries facing disruption from the global pandemic and digital transformation need to upskill their workforces through sustainable, remote training solutions. Multi-user immersive virtual reality (IVR) offers collaborative, geographically distributed learning, yet research in authentic global contexts remains limited. This study examines an IVR training program in a multinational heavy-industry firm, focusing on procedural skill acquisition, retention, and motivation to transfer learning. Trainees undergo pre-training, immediate post-training, and a 4-week follow-up assessment using a procedural knowledge test co-developed with company experts. Interest and transfer motivation are measured through validated survey instruments. Data will be analysed via descriptive statistics, correlations, and mean comparisons across time points. Scheduled for early 2026, the study's findings will inform both theoretical understanding of multi-user XR training efficacy and practical recommendations for global enterprises seeking scalable, low-carbon workforce development solutions.

Children as Political Actors - Play, Authority, and Clash of Social Orders in a Democratic School

Ana Marjanovic-Shane

I explore young children's political agency and the social orders they create in a democratic school. Using ethnographic data, I analyze how young children establish, legitimize, or challenge relationships of authority in and out of play. The study focuses on the emergence of a "Queendom," a temporary social order among several young children, and its tensions with the school's wider democratic values and practices. Framed within the EARLI theme of meaningful metamorphoses, the study explores how children's play can become a site of political strife, where bids and enactments of authority can be legitimized, delegitimized, or ignored based on concordant or conflicting personal and cultural values and existing social orders. Importantly, the study explores tensions between children's autochthonous social order and the school's democratic ethos. Interpreted through the Weberian framework, the school embodied legal-rational authority, while the Queendom drew on charismatic and traditional forms, adding a distinct form of "authority by immaturity/helplessness," leveraging vulnerability to command compliance—a distinctly modern cultural value. This perspective foregrounds children's agency as political actors, challenging adult-centered educational environments that often suppress or obscure such agency. The findings contribute to educational research in times of change by illustrating how dynamics of children's political orders could illuminate broader political processes of negotiating authority, agency, and resistance. The study argues that recognizing children's political imagination in play can inspire the rethinking of educational environments—toward practices that embrace democratic participation, foster equal rights of children and adults, and acknowledge the importance of the political dimension of childhood.

Against Equity: Uniqueness as Educational Justice in Times of Change

Eugene Matusov

The equity model has become the dominant framework for conceptualizing social justice in education. Advocates promise fairness by tailoring resources to ensure comparable outcomes across diverse learners. Yet, this paper argues that equity is fundamentally anti-educational: it prescribes outcomes in advance, imposes paternalistic judgments of success, and erodes learners' authorial agency. When educational goals are standardized and externally defined, students are reduced to passive recipients rather than active authors of their own learning. As an alternative, I develop a uniqueness model of educational justice, grounded in sociocultural theory, dialogic pedagogy, and practices of democratic schooling. Rather than aiming for outcome comparability, this model affirms each learner's right to self-education and self-governance, whether through solitary inquiry, peer collaboration, or community deliberation. A case study from a democratic school—the creation of the “Gaga Ball Game Corporation”—illustrates how students, through collective negotiation, resisted standardization and preserved the plurality of learning pathways. This proposal connects directly to the conference theme of “meaningful metamorphoses.” In a world marked by volatility and shifting demands on education, equity-based frameworks tend to reinforce control and compliance, while the uniqueness model reimagines learning as dialogic, agentic, and unpredictable. The paper invites critical discussion on how educational justice might be reconceptualized—not as sameness of outcomes, but as the cultivation of human dignity through irreducible uniqueness.

Interactive Visualizations for Knowledge Acquisition in ESD – An Experimental Eye-Tracking Study

Selina Michel, Manuel Förster

Understanding complex sustainability challenges is a central goal of Education for Sustainable Development (ESD). Traditional instructional approaches often reach their limits when addressing the abstractness and complexity of sustainability topics, whereas interactive visualizations can promote active learning and facilitate comprehension of systemic relationships. This study examines the effects of interactive compared to static visualizations on knowledge acquisition and visual information processing as a proxy for cognitive processes within the context of global value chains. Participants were randomly assigned to a control group (static visualization, $N = 19$) or an experimental group (interactive visualization, $N = 47$). The task involved analyzing the value creation chain of a T-shirt's in two scenarios (fast fashion vs. slow fashion). Knowledge was measured before and after the task, and eye movements were recorded using a Tobii Spectrum Pro (120 Hz). Results from a mixed ANOVA revealed a significant interaction between group and time ($F = 5.47$; $p = .022$), indicating a knowledge gain in the interactive group but not in the static group. Significant differences between groups were also observed for average fixation duration, fixation and saccade frequencies, and total dwell time ($p < .001$), suggesting differences in information processing between groups. The findings demonstrate that interactive visualizations can enhance knowledge acquisition and influence visual information processing when addressing complex sustainability concepts. Overall, the study highlights the potential of interactive tools to foster understanding and cognitive engagement in ESD. foster understanding and cognitive engagement in ESD.

Teachers' Diversity Beliefs: A Scale on Assimilation, Polyculturalism, and Critical Consciousness

Haliemah Mocevic, Marion Reindl

Teachers' beliefs about diversity and equity are central to creating inclusive learning environments and reducing structural inequities in education. While previous research has mainly focused on colorblind and multicultural approaches, these perspectives have been criticized for static conceptions of culture and limited attention to equity. This study aims to develop and validate a theoretically grounded instrument to assess teachers' diversity beliefs in classroom practice, which integrates two contemporary frameworks: polyculturalism, which conceptualizes culture as dynamic and interconnected, and critical consciousness, which combines critical reflection on social inequalities with action to challenge them. Items were adapted from validated scales and reformulated for teachers. Based on pretesting, item analyses, and expert feedback, the final 12-item instrument comprises four subscales introduced by the prompt "In my teaching, it is important to me that...": Assimilation, Polyculturalism, Critical Consciousness Reflection, and Critical Consciousness Action. The scale was tested with a sample of early-career teachers in Austria ($N = 198$) representing three teacher training pathways. Exploratory factor analysis supported a three-factor solution explaining 52.7% of the variance (Critical Consciousness, Assimilation, Polyculturalism). Internal consistencies were acceptable to good ($\alpha = .70-.83$). Factor correlations indicated moderate association between Critical Consciousness and Polyculturalism ($r = .61$) and near-independence from Assimilation ($r < .10$). The findings offer initial evidence for the multidimensionality of teachers' diversity beliefs and underscore the value of integrating contemporary cultural and equity-oriented perspectives. The instrument enables more differentiated and needs-based professional learning on diversity and equity, informing teacher education and school development policies.

Student Subject Teachers' Evolving Professional Vision within Pupils' Small-Group Learning Processes

Katja Mynttinen, Tuukka Iiskala, Juulia Lahdenperä, Marjo Helminen, Sara Routarinne

The one-year duration of subject teacher education is a crucial phase for developing student teachers' classroom interaction skills. A key concept in this development is professional vision, which refers to teachers' situational skills of perceiving, interpreting, and deciding how to respond to relevant classroom events. These interactions require nuanced abilities to engage with both individual pupils and groups. Despite the significance of collaborative learning as a pedagogical strategy, small-group learning processes and teacher's role in them remain underexplored. This study examines how student teachers perceive, interpret and make decisions about relevant events in pupils' small group learning processes and how their professional vision develops during their pedagogical studies. Finnish language and literature student subject teachers (N=13) watched videos of pupils' group work and made annotations of relevant small-group events four times during their studies. At the beginning and end of their studies, they discussed their interpretations and how they would respond as teachers. Their small-group discussions were video-recorded and analyzed using theory-driven content analysis. Preliminary findings show that student teachers reported twice as many observations of relevant small-group events at the end compared to the beginning. Initially, their interpretations focused more on individual learners than groups, by the end, they increasingly considered individuals within group contexts. Although cognitive aspects were considered most relevant, indications of increased attention to the socio-emotional support of individuals within groups emerged towards the end. The results emphasize the need to strengthen teacher education to better support future teachers in observing and guiding pupils' collaborative learning.

Differentiated Instruction as Philosophy in Teacher Education

Maren Oldenburg, Sunet Grobler, Rosa Modiba, Appolonia Masunungure

This theoretical–conceptual presentation introduces the differentiated instruction (DI) philosophy as a transformative framework for reimagining inclusive teacher education. Teacher educators play a pivotal role in preparing future teachers for inclusive and diversity-sensitive classrooms, yet there remains a significant research gap on how they approach this responsibility in practice (Terhart, 2021; Schratz, 2015; Schritteser, 2020). While they are expected to model inclusive pedagogy, studies suggest that both pre- and in-service teacher education often fall short in adequately preparing teachers to implement inclusive approaches like DI in heterogeneous classrooms (Schwab & Woltran, 2023; Onyishi & Sefotho, 2023). DI is an instructional approach that involves tailoring teaching practices to meet the diverse learning needs of students within classrooms (Langelaan et al., 2024) and to reduce barriers to teaching and learning. Anchored in the principles of Sustainable Development Goal 4 (SDG4)—which promotes quality education, equality, equity, inclusivity, lifelong learning and sustainability (UN, 2015)—this presentation will include sharing existing theories and provoke further discussion on how DI can guide a reconfiguration of teacher education. We will introduce a planned research collaboration between the University of Innsbruck (Austria) and North-West University (South Africa) that will examine (starting from March 2026) how teacher educators and pre-service teachers engage with DI as a philosophical orientation. Keywords: action research, differentiated instruction, philosophy, teacher education, Sustainable Development Goal 4 (SDG4), quality education

Research on inclusive schools: Theoretical and Empirical Reconfigurations?

Maren Oldenburg

This presentation explores the tension between inclusion and exclusion in qualitative research on inclusive education, with a particular focus on the perspective of doctoral students. While inclusive education research often aims to reduce inequality and discrimination, it simultaneously risks reproducing differentiations and categorizations, such as those between students with and without disabilities. The central argument is that research itself requires a reflexive transformation in order to avoid reinforcing these categories and instead contribute to more equitable educational practices. Drawing on theoretical discussions (e.g., Demmer/Heinrich 2018; Budde/Humrich 2015), this work highlights the dilemma faced by researchers who strive to use difference-sensitive language while still encountering the problem of categorization. The presentation first outlines the necessity of adopting a meta-perspective on the research process, especially when analyzing inclusive schools. Secondly, it introduces findings from an ongoing study in which interviews with PhD students conducting research in this field are examined through Grounded Theory methodology (Glaser/Strauss 1967). The analysis investigates how these emerging scholars reflect on and navigate the risk of reproducing or deconstructing categories within their work. By discussing these insights, the presentation addresses whether and how reflexive research in inclusive education is possible and underlines the need for methodological approaches that critically engage with vulnerability, diversity, and inequality (Messerschmidt 2016).

Teachers' collaborative learning in ICT integration: Insights from the ICILS study

Sahsenem Öz, Asko Tolvanen, Kaisa Leino, Raija Hämäläinen

Teacher collaboration is a key element of teachers' professional learning. However, little is known about how teachers collaborate to learn when it comes to technology integration. The present study aims to identify potential ICT-related collaboration types, their stability, and the factors influencing membership in different groups. For this purpose, we employ latent class and transition analysis, utilizing teacher questionnaire data from Finland collected in the International Computer and Information Literacy Study (ICILS) 2018 and the ICILS Teacher Panel 2020. The Finnish data involves 1,246 grade eight teachers who participated in both studies. Preliminary findings from the latent class analysis of the first wave of the teacher panel indicate four latent groups by variations in the degree of collaborative engagements: "Non-Collaborators" (5% of sample, $n = 65$), "Selective Low Collaborators" (33% of sample, $n = 409$), "Moderate Collaborators" (47% of sample, $n = 576$), "High Collaborators" (14% of sample, $n = 177$). Further findings on whether teachers transitioned to another latent group after the pandemic, along with the covariates, will be presented and discussed at the conference. Findings will enable school principals and education researchers to understand teacher collaboration in the context of ICT integration and help facilitate teachers' everyday learning.

Socioemotional Competences in the Training of Prospective Teacher-Researchers: An exploratory study.

Adriana López Padilla, Elena Stamouli, Carla Quesada Pallarès

This exploratory mixed-methods study investigates the emotional competences that influence the development of future teacher-researchers within the Teaching Clinic program. The purpose is to describe the emotional competences that characterize student teachers and master's students participating in reflective and research-based teacher education across Teaching Clinic partner universities. Drawing on "Gerbeth and Stamouli's (2023) Multidimensional Emotional Competence Questionnaire", the study analyzes nine dimensions of emotional competence: empathy, perspective-taking, phantasy, trust in one's expressivity, positive expressivity (joy and fun), negative expressivity, reflective handling of emotions, and influencing one's own emotions. These dimensions are considered essential for reflective inquiry and professional growth. Data from approximately 359 participants from Teaching Clinic institutions will be analyzed quantitatively using descriptive statistics, correlations, exploratory factor analysis, and pretest-posttest comparisons. This will be complemented by a qualitative analysis of participants' open-ended reflections to identify recurrent themes and emotional expressions. The study seeks to understand the main socioemotional competences that characterize teacher-researchers, how they influence their professional development, and how personal and contextual factors relate to these competences. The findings will contribute to the Teaching Clinic's objective of integrating socioemotional development into teacher education, highlighting how emotional competence fosters reflection and collaborative inquiry in the preparation of teacher-researchers. Keywords. Emotional competences, teacher education, teacher-researcher identity, teacher-researcher development, mixed methods study.

Instruction in Swedish for Immigrants (SFI): Exploring Pathways to Improved Outcomes

Dimitrios Papadopoulos, Karin Wass

Students in Swedish for Immigrants (SFI) Study track 1, designed for adult learners with little or no previous schooling, show the lowest completion rates and pass grades across the SFI education. Research indicates that dropout is linked not only to life circumstances but also to how instruction is organised and experienced by students. The aim of this study is to investigate how instruction in Pathway 1 is tailored to the needs of students and to identify areas of pedagogical development that can support persistence and completion of education. The study is conducted at two Swedish adult education providers and involves approximately 90 students and 12 teachers across four groups. Data include classroom observations, student focus group interviews, teacher interviews, and reflective discussions with teacher teams. Our analysis is guided by Tinto's theory of student retention. Preliminary results indicate that: (1) students are strongly motivated but pursue diverse goals ranging from everyday independence to labour market entry and further education; (2) classroom learning conditions are often challenging, with tasks perceived as too difficult and feedback insufficient; (3) external demands and family responsibilities frequently interrupt studies; (4) unclear expectations and regulatory constraints create barriers to persistence.

Crossing boundaries: Promoting teacher discussions on diverse approaches to climate change education

Jaesung Park, Haesol Bae, Devan Walton, Gregory Massara, Yingru Zhao, Soojeong Ahn

The climate crisis we face calls on K-12 teachers to understand and practice climate change education (CCE) and to determine how climate change can be taught in the classroom. The wickedness of climate change as a global issue requires them to reflect on their individual beliefs and values to better articulate their ideas on the design and implementation of climate change curricula. We propose the teachers' collaborative exploration and inquiry of diverse pedagogical approaches to CCE by teachers as a foundation for relevant professional development for K-12 educators. This research is a preliminary study exploring the theoretical standpoint of how K-12 teachers can develop or elaborate their ideas on CCE through discussions with their colleagues. In addition to this theoretical investigation, the highlights from the authors' group discussion on the diversity of teaching orientations to and pedagogical perspectives on CCE will be presented to exemplify how teachers' collaborative exploration of diverse pedagogical approaches to CCE can be an effective way to support teachers' professional development.

Delphi 2 – Refining the GIFT-A Framework for Quality in Gifted Education

Maria Parvu, Simona Mitrea

This roundtable presents Delphi 2 of the research project validating the Gifted International Framework for Talent Accreditation (GIFT-A) — a model for defining and assessing educational quality in gifted and twice-exceptional (2E) education. The project originated from the accreditation of a school dedicated exclusively to gifted education, which successfully met the criteria of IBO, CAIE, BSO, and the National System of Accreditation. Although the school achieved maximum scores in curriculum acceleration, compacting, enrichment, and wellbeing, post-accreditation analysis revealed a systemic gap: none of these frameworks audited gifted admission systems, recognized teacher training in gifted education, or evaluated developmental stages specific to gifted institutions. This observation led to Delphi 1, engaging parents, gifted/2E students, and teachers specialized in gifted education, who identified and refined 12 audit domains for measuring quality in gifted schools. The Delphi 1 findings, presented at WCGTC 2025, confirmed the international relevance of the framework. Delphi 2, presented at EARLI, extends this validation process to researchers, policy-makers, teacher educators, and accreditation representatives (IBO, CAIE, BSO, National System). The discussion examines how current accreditation systems — while integrating gifted learners effectively (ARACIP, 2021, 2023; Brooks, n.d.; Cambridge Assessment, 2016; Cognia, 2022; Davis, 2018; DfE, 2014) — do not support their differentiation from typical peers. The session aims to establish an interdisciplinary consensus on measurable quality indicators grounded in the Schoolwide Enrichment Model (Reis & Peters, 2021; Renzulli & Reis, 1997), emphasizing curriculum compacting, acceleration, enrichment, differentiated instruction, and formative evaluation.

Through Different Lenses: Supporting Students' Perspectival Agility with Reflective Prompts

Lara van Peppen, Nadja Kistler, Sabine Krah, Jason Gawke, Marca Wolfensberger

Addressing complex societal challenges requires professionals who can identify, compare, and combine multiple perspectives; a competence referred to as perspectival agility. However, individuals often struggle to move beyond their own point of view, especially when topics evoke strong emotions. This experimental study examines how different reflective prompts can support students' perspectival agility, based on data from 485 first-year students from various programs in an interdisciplinary course at a Dutch University of Applied Sciences. Each student first indicated their perspective on a societal issue and then watched a short videoclip, presenting several perspectives on that issue. Students were randomly assigned to one of four conditions that differed in reflection prompts: focus on differences between perspectives, focus on similarities, focus on both differences and similarities, or no explicit prompts (control). Finally, students reflected on whether and why their perspective had changed. Data include perspectival agility indicators and measures of attention to, identification with, and emotional involvement in the perspectives. Analyses (to be completed by January 2026) will test whether explicit prompts on similarities and differences foster perspectival agility. In this roundtable session, we will share our preliminary findings and will collaboratively discuss their significance for education – from multiple perspectives.

Exploring the role of higher education students' individual goals in peer feedback provision

Amadeus J. Pickal, Melanie V. Keller, Tobias Böttger, Martin Daumiller, Markus Dresel

In university courses, the implementation of peer feedback is a common strategy to distribute feedback efficiently. In this context, research shows that both receiving and, especially, providing feedback can also positively affect academic performance. Previous studies further emphasize that providing peer feedback can foster multifaceted learning. However, its benefits may depend on students' willingness to provide high-quality feedback, which can consequently be attributed to their motivation and individual goals. This study examines the relationship between students' goals—learning approach, task approach, appearance approach, work avoidance, social concern, and social responsibility—and the effort and time they invest in providing peer feedback. During one semester, 186 education students submitted multiple anonymized essays, provided guided peer feedback, and reported their goals (each time before providing feedback) as well as the effort and time spent on the feedback task (each time after providing feedback). Survey-adjusted generalized linear models showed that task approach and social responsibility goals influence effort. These results highlight the role of motivational factors in peer-feedback provision.

Playful resources to teach and learn research methods in Education

Carla Quesada-Pallarès, Anna Ciraso-Calí, Helena Roig-Ester, Allan Baez Contreras

Recent literature highlights the growing relevance of teaching and learning research methods through active methodologies in higher education. However, the potential of playful learning in this domain remains underexplored. This workshop introduces and critically examines three playful resources designed to support the understanding of research processes among two distinct audiences: secondary students initiating their first research projects, and in-service teachers engaging in participatory action research. The first resource, *Building Research*, is a board game that guides students through the research process using modular pieces and decision-making cards, fostering reflection and peer feedback. The other two resources—*Evidence Battle* and *Evidence Chain*—are card-based games aimed at evaluating and comparing different sources of evidence, encouraging players to consider the strength and complementarity of data, professional knowledge, and scientific literature. These tools have been piloted with promising informal results, promoting active engagement and sparking discussions on research design and evidence quality. During the workshop, participants will experience the games firsthand, assess their pedagogical value, and contribute to their refinement. The final versions will be published open-access, aiming to expand the repertoire of playful strategies for teaching research methods.

Fostering Research Competence and Inquiry Habit of Mind Through Research-Based Service-Learning

Julia Raberger, Carla Quesada-Pallarès, Konstantinos Gkaravelas, Ulrich Hobusch, Elena Stamouli, Dominik E. Froehlich

Developing research competencies and an inquiry habit of mind among pre-service teachers is a key focus in teacher education. Research-based learning (RBL) has been proposed as a promising approach to address these needs. However, research on RBL has shown mixed results regarding its effectiveness in fostering research capabilities in future teachers. To address the limitations of traditional RBL, hybrid formats such as research-based service-learning (RBSL) have emerged. RBSL combines research activities with service-learning principles, creating a stronger connection between research and practical application in school settings. This study uses a quasi-experimental, longitudinal mixed design to examine how RBSL influences pre-service teachers' self-perceived research competencies, inquiry habits of mind, and proactive social informal learning behaviors. Data collection spans three semesters across multiple institutions, using pre- and post-tests, milestone surveys, and comparisons between intervention and control groups. Preliminary findings suggest that RBSL fosters research capabilities, with implications for improving teacher education programs and contributing to the transformation of educational practices.

Sustainability education through Play IT Cool: a pilot study on motivational and emotional aspects

Giuseppe Ritella, Jessica Napolitano, Sara Torre, Lucia Grieco, Giovanna Tucci, Maria Beatrice Ligorio

Digital Game-Based Learning (DGBL) is a promising approach for Sustainability Education (SE), intended to foster the learning processes and motivational changes necessary for sustainable practices. The present pilot study aims to examine students' emotions, motivation, and enjoyment when engaging with a gamified educational activity—Play IT Cool—developed through the integration of Self-Determination Theory (SDT) and the Mechanics, Dynamics, Aesthetic (MDA) model of game design. We analyze how students' experiences with Play IT Cool differ from a comparable non-gamified, interactive learning experience. This study involved 28 university students working in small groups, divided into two conditions: gamified (N=14) and non-gamified (N=14). Pre- and post- self-report surveys (Basic Psychological Needs, Emotions, Enjoyment) and qualitative focus groups were administered. The results show that both activities promoted positive emotional and motivational experiences, including increased enjoyment and needs satisfaction, and decreased boredom/helplessness. The gamified version was not substantially different from the non-gamified condition on the assessed outcomes. The preliminary qualitative findings suggest the positive experience was driven mainly by the collaborative nature of the activity and the relevance of the topic for the participants. These findings suggest that while game elements alone may not enhance outcomes, the interactive and collaborative pedagogical design appears to support student engagement in sustainability education.

Community and collaborative learning in online schools: Students' and teachers' perspectives

Alison Rodrigues, Jude Brady, Martin Johnson

Online schools are an increasingly significant aspect of the global education landscape. They can support access to education for students who face barriers such as disability or distance, they can enable students to catch up on missed classes, and they potentially might have a role in re-engaging students who have been out of school for a variety of reasons. Despite these affordances, some argue that online learning can impact students' perceptions of belonging, trust and connectedness. From the perspective of sociocultural learning theory this is an important issue because models of social learning rely on students being comfortable and able to share knowledge and perspectives. Connectedness and trust are likely to facilitate students' willingness to share ideas, which positively contribute to their learning. We were interested in exploring students' and teachers' broad perceptions of collaborative learning in online classes, and the role of learning community membership on the knowledge sharing process. To do this, we interviewed 14 students and six teachers from five online secondary level schools across a variety of national contexts. Our analysis suggests that a culture of participation in a class is important for productive collaborative learning. We also suggest that this culture involves a complex balance between students' social accountability to the wider group of students and the individual agency that online communication tools afford the students.

Cultural Belief Profiles of Finnish Teacher Education Students

Leandra Ve Saskia Rome, Marko Lähteenmäki, Eija Pakarinen, Sotiria Varis, Kirsi Wallinheimo, Ville Mankki

Cultural beliefs affect teachers' and student teachers' multicultural competencies and their ability to adapt to and overcome cultural challenges and differences. Nonetheless, little is known about the development of student teachers' cultural beliefs through initial teacher education (ITE). We investigated cultural belief profiles of Finnish student teachers in their first and third year of studies, as well as potential factors associated with these profiles. This study utilised survey data gathered from eight Finnish universities offering ITE, complemented by register data. Our findings showed four distinct belief profiles associated with students' prior academic achievement, university, and ITE programmes. These profiles were consistent between years 1 and 3 of studies, highlighting the necessity to adapt the content of multicultural competencies to meet the needs of heterogeneous student populations. As studies investigating the effectiveness of ITE in preparing students for culturally diverse classrooms often pursue variable-oriented or short-term approaches, our research offers a person-oriented and longitudinal perspective for teacher education with valuable implications for ITE curricula.

Meaningful emotion: ecstatic experience in research as a marker of methodological quality

Eleanor Rowan, Ester Eriksson, Elisabeth Angerer

The aim of this workshop is to explore ecstasy in research, specifically ecstatic experiences in research as a marker of methodological quality. We argue that emotive engagement in educational research is an untapped source of guidance for methodological quality, and that attunement with this emotive dimension is important for conducting relevant research in turbulent political times. Specifically, we practise attentiveness to ecstatic experiences as a tool for recognising when our research aligns with what is happening and what matters in education. In this workshop, participants will explore their relationships with ecstatic experiences in research and discuss their practical implications for methodological decision-making, especially in the context of methodological improvisation. We will facilitate this through collaborative reflection, free-writing, and embodied and arts-based methods. Participants will develop an awareness of the role of ecstatic experiences in their own work, and form a critical and nourishing relationship with ecstasy as a quality marker. Everyone is welcome, though it is worth noting that the presenters will be referring more to experiences of qualitative research and ethnographic methods.

Telling your story: adolescents developing an interest in film

Eleanor Rowan, Sanne Akkerman, Bjorn Wansink, Monique Volman

Adolescents' interests are important sources of knowledge and skills. Research that examines interest as socio-culturally situated practices highlights that interests are pursued in a given context, with social others, in other words in a context with culture, with norms. These include but can also exclude, which is why identity and support are important factors for continued engagement. However, research on examples of interest practices where attention is paid to identity and support, and the complexities of paying attention to these, are lacking. In this study, we examine the work of Common Frames, an organisation that seeks to diversify the Dutch media landscape by supporting diverse adolescents, specifically recently arrived migrants and refugees, to develop an interest in film and media. They start with in-school workshops and interested adolescents can progress through extra-curricular programs. We use this example from practice to ask how adolescents at risk of marginalisation, societally and within an interest context, can experience interest development when attention is paid to identity and support.

A Random Intercept Cross-Lagged Panel Model on Children's Emotion Knowledge and Grammar

Maria von Salisch, Katharina Voltmer

A meta-analysis suggests that children's educational success is forecasted not only by their language skills but also by their emotion knowledge (EK). In particular, children's grammar has predicted school success, partly because academic language relies on complex grammar. Interrelations between EK and grammar have rarely been studied. Does a good command of grammar facilitate gains in EK? Or is an advanced EK a predictor for learning and gains in grammar? Or are relations bidirectional? In the Early Childhood Education study, N = 281 kindergartners (49% female) were interviewed three times with the Adaptive Test of Emotion Knowledge (ATEM 3-9) and a German measure of receptive grammar. In the School study, N = 282 second graders (49% female) filled in ATEM 3-9 and TROG-D. Scores were z-standardized. Both studies were embedded in interventions (whose effect was insignificant). In a multigroup RI-CLPM, bidirectional positive relations were established at the within level: First, individual kindergartners with a better command of grammar at T2 made greater progress in EK at T3. Second, young children with advanced EK at T2 gained in their grammar at T3. In the school sample, second graders with lower scores in grammar at T1 (which included many multilinguals) caught up with support and improved in their EK at T2. At the between-level positive effects of age, intelligence, and monolingual German upbringing on both areas were revealed. Matthew effects are discussed for individual progress. Using EK to promote both grammatical and social skills could be an interesting part of future education.

Effects of teachers' implicit stereotypes about disadvantaged students on judgements and behavior

Anna Shevchuk, Sabine Glock

Empirical evidence demonstrates persistent disadvantages for students with a Turkish migration and low socioeconomic (SES) background, where male students appear particularly affected. These disadvantages can be partly explained by teachers' (implicit) stereotypes. Although implicit negative stereotypes regarding learning and working behavior of Turkish students have been identified among preservice teachers, the concrete effects of these stereotypes on teachers' judgments and behavior remain underexplored. This study examined how implicit stereotypes about Turkish and low-SES students are associated with preservice teachers' judgments on academic domains and on judgments of warmth and competence as two domains within the Stereotype Content model, and anticipated supporting or harming behavior towards these students. Two samples of preservice teachers ($N_1 = 104$; $N_2 = 142$) read a fictitious student description implying either Turkish origin or low SES. Implicit stereotypes were measured using the Single Category Implicit Association Test (SC-IAT). Regression analyses revealed that negative implicit stereotypes predicted lower ratings of German language ability for Turkish-origin student and lower mathematical ability for the low-SES student. Moreover, stronger negative implicit stereotypes were linked to higher warmth judgements and support for the Turkish student but reduced support for low-SES student. These group-specific patterns align with the Stereotype Content, and highlight how automatic cognitive processes can shape teacher judgments and behavioral dimensions of teacher–student interactions.

Facilitating Meaningful Metamorphoses Through Teacher Educators

Kimberly Siacor, Dominik E. Froehlich

Increasingly complex global challenges across human life highlight the critical role of teacher educators in preparing future teachers to act transformatively. Education for Sustainable Development (ESD) emphasizes action competencies, which refer to the ability to reflect and take meaningful action for a sustainable future. Yet, little is known about how teacher educators themselves model and foster these competencies in their teaching. This paper presents the theoretical background and proposed design of a study exploring pre-service teachers' perceptions of their teacher educators' action competencies in ESD. Adapted from the Teacher Action Competence in ESD Model, the study frames teacher educators as multipliers of change who can model and foster sustainability-oriented teaching practices and values in future teachers. The proposed qualitative approach will use semi-structured interviews to capture how pre-service teachers experience and interpret their teacher educators' enactment of action competencies in ESD. By examining these perceptions, the paper aims to provide insights about the meaningful metamorphoses in teacher education, highlighting how teacher educators' own action competence is integral to fostering transformative and sustainability-oriented learning among future teachers.

European Schools: On the Metamorphosis from National to Shared European Identities

Selina Silian

This study suggests that introducing a European dimension in education can serve as a catalyst in transforming pupils' diverse national identities into a shared European one, while preserving distinct national characteristics, following the EU-motto "United in diversity". This process reflects an identity metamorphosis. In response to contemporary societal challenges (especially divisions arising from xenophobia, discrimination, nationalism), the European Council (2018) called for promoting common values and the European dimension in education. Founded in 1953, the (Accredited) European Schools, a supranational EU-wide system, aim to provide multicultural, multilingual education based on EU-principles (pluralism, tolerance) and the European dimension (Schola Europaea, 2023). In 2023, Austria's first Accredited European School (AES) opened in Tyrol, accompanied by the Universität Innsbruck. Using a qualitative approach, the study explores how the European dimension is implemented in classroom practice at AES Tyrol by examining (1) content related to the European dimension, (2) pedagogical and didactic methods employed to convey it, (3) school-specific characteristics supporting European identity development among students. Data from 25 lesson observations and seven expert interviews were analysed using content analysis (Kuckartz/Rädiker, 2022) and descriptive statistics (R). Findings revealed subject-specific differences: Human Sciences focused on European knowledge, while language classes emphasised linguistic diversity. Second Language lessons integrated identity reflection through Content and Language Integrated Learning. Observed teaching methods and activities (e.g., European Days) fostered intercultural exchanges, promoting a European identity. The findings highlight the need for a more systemic integration of the European dimension while underlining its transformative role in fostering a collective European identity.

Motivation and Making: Interaction Analysis Using Triadic Reciprocal Causation

Nisumba Soodhan, Ramkumar Rajendran, Sridhar Iyer

Making is a fundamental human activity that fosters creativity, innovation, and problem-solving. Over the past two decades, makerspaces have gained recognition as learning environments that foster 21st-century skills. Among the factors affecting participation, motivation stands out as a key driver, propelling individuals to engage and persist with making activities. Despite its importance, the role of motivation viewed through the lens of authentic interaction with tools, peers, and facilitators remains underexplored. In this study, we investigate motivation not only through self-reported surveys but also through the analysis of approximately 20 hours of project-making video data from two contrasting groups of middle school students. Theoretically, we adopt the triadic reciprocal causation framework of socio-cognitive theory to examine the dynamic interaction between personal, behavioural, and environmental determinants. We applied the Ash methodology to obtain an overview of the making process, followed by an intermediate-level analysis to identify episodes of difficulty or “trouble”. These episodes were then examined using interaction analysis to explore the personal and environmental factors influencing persistence, a behavioural indicator of motivation. Our analysis revealed notable differences in help-seeking behaviour and peer interactions between the two teams. Furthermore, we observed a divergence between self-reported motivation and motivation as inferred from behaviour, highlighting the importance of examining motivation as a dynamic process embedded in socio-material contexts. These findings offer a more nuanced understanding of motivation in makerspaces and suggest potential strategies for designing interventions to sustain motivation in such learning environments.

Designing for Affective Engagement through AI-Supported Tasks in Secondary EFL Classrooms

Andry Sophocleous

In response to the increasing disengagement of students from textbook-driven instruction, this study investigates how meaningful instructional metamorphoses can be utilized through the integration of AI-supported tasks within a Task-Based Language Teaching (TBLT) framework. The study was conducted in a multilingual state school in Cyprus with 77 secondary EFL learners over a four-month intervention in which students completed 90 AI-enhanced activities. Drawing on Control-Value Theory (Pekrun et al., 2002) and Broaden-and-Build Theory (Fredrickson, 2001), the study examined how affective engagement was influenced by students' task value and perceived control. Its two research questions were: 1) To what extent did students' affective engagement change from pre- to post-AI intervention? 2) Which aspects of the lessons and tasks during the AI-enhanced period did students report enjoying the most, and why? A mixed-methods design included pre-/post-AI-enhanced activities, questionnaires, classroom observations, and student focus groups. Paired-sample t-tests showed significant increases across all affective dimensions ($p < .001$). Qualitative data revealed increased learner agency, emotional investment, and collaboration. This study suggests how AI-supported tasks can foster agentic, student-centered, and emotionally engaging learning in a digital era and demonstrates how technology-enhanced shifts in EFL pedagogy can counteract school inertia we frequently come across, particularly in multicultural and linguistically diverse teen classrooms.

Measurement and structure of the perceived error climate in primary school classrooms

Jana Spear, Donna Bryce, Cara-Sophia Enste, Robert Grassinger, Markus Dresel

How students deal with errors plays a crucial role in their learning progress, which, in turn, is influenced by how teachers approach errors in class. The concept of the error climate captures the extent to which errors are constructively addressed and used for learning within the classroom context. It can be perceived individually by students but also represents a collective classroom characteristic, thus calling for a multilevel perspective. Previous research in secondary education has suggested a multidimensional structure of the error climate comprising eight subdimensions and a higher-order general factor; however, evidence from primary school classrooms is lacking. Therefore, the present study introduces an adaptation of the commonly used error climate scale specifically for primary school students and investigates its underlying structure in this age group. Departing from previous higher-order modeling procedures, we propose a bifactor multilevel model—an approach that has recently gained attention for its statistical flexibility. Data from $N = 1550$ third- and fourth-grade students (132 classrooms) was collected. However, preliminary analyses were conducted in a subsample ($n = 531$) and revealed good internal consistency of the adapted measure as well as an excellent fit of the proposed bifactor model. These findings suggest that as early as in primary school, a differentiated perception of the error climate with eight subdimensions and one general factor emerges. Due to limited statistical power of the subsample, multilevel analyses have not yet been conducted. However, the complete dataset will allow for full model testing by the time of the conference.

Exploring novice and expert teachers' professional vision with epistemic network analysis

Rebekka Stahnke, Andreas Gegenfurtner

Teachers' skills to perceive classroom events, interpret these events, and form decisions about next strategies comprise their professional vision. Analyses of think-aloud protocols can uncover indicators of these skills and offer new insights into novice and expert teachers' mental models of noticed classroom management events. The study compares two methods for analysing think-aloud data from novice and expert teachers: a standard frequency-based approach and epistemic network analysis. The aim is to show the potential of both methods for investigating how teachers integrate observed visual information and classroom management scripts into mental representations of classroom management events. 19 pre-service and 20 in-service teachers participated in the study. Participants' retrospective think-aloud data (i.e., after watching a video with critical classroom management events) were recorded, coded with respect to their professional vision and analysed using a frequency-based approach counting the number of codes and epistemic network analysis which visualizes the temporal co-occurrences of codes within event-related utterances. The frequency-based approach shows that experts verbalized student learning, teacher behavioural management, and alternative management strategies more frequently than novices. In comparison, ENA indicates that novices had difficulties to make sense of events while experts could integrate information and scripts into more elaborate and well-structured mental models of the observed events. In conclusion, ENA can provide deeper insights into teachers' mental representations of classroom management events than the standard frequency-based approach. Therefore, ENA can be a useful tool to investigate teachers' integration of information into mental models as indicators of their professional vision and visual expertise.

Teacher perspectives on students

Kim Stroet, Cornelis de Brabander

This paper reports on an open inventory of primary school teachers' perspectives on students. Using the repertory grid as a means of data collection, 15 teachers were asked to reflect on similarities and differences between groups of three students and to formulate 6 or 7 bipolar constructs. They were then asked to score all students in their class on these constructs. 13 Teachers completed this last step. The structure in each of these 13 datasets was analyzed with singular value decomposition. From these thirteen analyses two emergent patterns of thought were identified and described, thoughts about learning pace, which appeared less important than expected, and thoughts about busy vs quiet students, by teachers frequently labeled as the 'presence' of students, which appeared to have a conspicuously prominent place in teachers' minds. Both themes were contextualized with the literature, the first theme with the literature on teacher expectations, and the second theme with the literature on classroom management. Our discussion of both themes lead to further questions about their interpretation. With respect to learning pace different interpretations were discussed about the place learning pace as a characteristic of students has in the mind of teachers. With respect to the importance of students' 'presence' the question was to what extent teachers need more competence in classroom management or a change in workplace conditions.

Photovoice Across Four Countries: Students' Lived Socioecological Narratives

Alessio Surian

This study uses the photovoice methodology with young people aged 12–16 in schools in Argentina, Brazil, Italy, and Uruguay to make visible how sustainability and the climate crisis are perceived in their everyday life. In these case studies, participants produced more than 200 photographs, each with their respective titles and captions. This corpus was analysed using reflexive thematic analysis, starting from data immersion and memos and then moving to coding that spanned descriptive and latent meanings. We conducted dialogic interpretation and participant feedback over inter-rater reliability procedures, and refined themes through attention to negative/atypical cases. Four cross-cutting storylines emerged: (i) Care, commons, and agency: student cooperatives, maintenance of shared spaces, and peer organising illustrate collective responsibility; (ii) Infrastructural precarity and environmental injustice: overflowing bins, flooded crossings, and broken drains locate environmental issues in uneven service provision; (iii) Climate disruptions: fires, floods and storm debris reconfigure daily routes and routines; and (iv) Consumption, waste, and repair: ambivalence toward consumer culture coexists with emergent circular practices. Together, these visuals articulate “lived ecologies” linking micro-practices of care and hope to macro-structures of rights, public services, and climate governance. Methodologically, we show how photovoice advances place-based learning across contexts; pedagogically, we place inquiry-driven activities that centre affective-ethical aspects and *sentipensar* (feeling-thinking) at the core of the learning process.

Empowering Educators through IoT-Enhanced Environmental Inquiry

Bernardo Tabuenca, Michael Eichhorn, Thomas Economou, Carlos Rejón

This 90-minute workshop introduces an innovative framework that merges environmental education and digital competence development to foster meaningful metamorphoses in teaching and learning. Using Internet of Things (IoT) technologies, participants will explore how sensor-based inquiry can engage students in authentic investigations of their urban environment, encouraging reflection on sustainability, agency, and transformation. The session builds on the EU GreenComp and DigComp frameworks, translating them into hands-on, inquiry-based activities adaptable for various educational levels. Participants will experience a guided cycle of exploration—measuring environmental data, interpreting findings, and co-designing learning activities that connect digital literacy with ecological responsibility. Through collaborative reflection, the workshop will examine how these practices support educators and learners to navigate and enact change in times of ecological and societal uncertainty. The session aims to empower educators to become agents of transformation—capable of integrating sustainability, technology, and critical reflection into their pedagogical practice.

Affordances for Creativity, Curiosity, and 'Be the Change' in STEM Lessons: A Barcode Analysis

Tang Wee Teo, Zhuoli Zheng, Jin Xin Matilda Ho

The outcomes of a curriculum are contingent on the types and frequency of affordances enacted during lessons. Such affordances, both pedagogical and curricular, are integral to how students experience and learn. However, such affordances tend to be dynamic and brief, making it challenging to trace and identify the types of outcomes that are correspondingly evoked from the respective affordances. Situated within the context of integrated STEM (science, technology, mathematics, and engineering) lessons in an Asian country, we examine these affordances and their corresponding student learning outcomes, namely, curiosity, creativity, and change agency (3Cs). The research questions addressed in this paper are: (1) What is the frequency of pedagogical or curricular affordance installed and enacted in a STEM lesson? and (2) How do the affordances lead to the respective outcomes in STEM learning? In this paper, we present findings from a barcode analysis of four diverse STEM lessons with varying degrees of disciplinary integration. A total of 265 episodes were coded. The frequency of creativity-related curricular and pedagogical affordances were the most frequent. This was followed by curiosity- and then 'be the change' curricular and pedagogical affordances. As such, student outcomes related to creativity were highest, followed by curiosity, and then 'be the change'. More intentional incorporation in curriculum design. Deliberate curriculum design and pedagogical strategies are needed to foster a more balanced growth for all three 3Cs in STEM education.

Effects of Students' Social Status and Body Weight on Pre-Service Teachers' Judgments and Attitudes

Anita Tobisch, Markus Dresel

This study examines how students' socioeconomic status and body weight affect judgments, attitudes, and stereotypes by pre-service physical education teachers. Using a 2x2 vignette design, we manipulated both factors while keeping performance constant. Participants rated students' social, motivational, and emotional characteristics, athletic abilities, grades in physical education, general academic abilities and grades in the main subjects. Results indicate that both low status and higher weight negatively influence assessments. These biases may lead to unfavorable social interactions and expectation effects, potentially worsening conditions for students who are slightly overweight and/or from low-status backgrounds. The findings highlight the need for bias-sensitive teacher education.

Taking off the mask of adult existence: Rekindling playful habits of mind in music teacher education

Eva Vass

This article delves into the nature and significance of purposive playfulness in music teacher education. Our explorative context is an elective Master's subject at the Liszt Academy of Music. The subject provides an immersive introduction to the Kokas pedagogy, which differs radically from the participants' typical higher education sessions. Our prior work has documented how the Kokas experience revitalises participants' musicianship and music pedagogy (Author et al, 2017, Author, 2019). This paper explores how such personal or professional transformations, rooted in immersive experiences, manifest the (re)emergence of playful habits of mind. Building on the quasi-ethnographical study of one cohort (13 adult participants specialising in composition, singing, violin, guitar, piano, clarinet or musicology) we conducted a qualitative analysis of the observational data (video-recordings of nine Kokas sessions) and narrative data (students' reflective essays). Tracing the (re)emergence of playful habits of mind, we examined how this process was catalysed by the pedagogy. In confluence with existing and emergent scholarship on possibility (Craft & Chappell, 2016; Glaveanu 2020), our findings point towards the constitutive essence of a habitually playful mindset – a 'prepared mind' (Glaveanu, 2021) – in leading an authentic, self-congruent and inspired professional life. Cultivating playfulness as habitual practice can catalyse both individual and collective change, interrupting prevailing assumptions and assumed ways of being.

Returning to our senses: An arts-mediated dialogic approach to revitalise educational scholarship

Eva Vass, Josephine Moate

International trends in the educational landscape are currently influenced by neoliberal socio-political retrogression, framing and informing policy and practice. The knock-on effect is far-reaching – educational scholars stripped of autonomy and agency, research becoming a pursuit for control, and teacher education reduced to training. To proactively counter these trends, we see the pressing need to foreground and reopen to the arts. In contrast to the reductive efficiency of instrumentalism, the arts manifest and invite comprehensive perception and expression, allowing for contradiction, tension and emergence in the pursuit for better questions and deeper insight. This presentation offers our theorised response to the conference challenge and outlines an arts-mediated approach – ArtSchol – to affirm and expand professional autonomy and agency of educational scholarship. Drawing on Biesta's world-centred education, Bakhtin's dialogism and Rayner's Natural Inclusionality, Artschol combines varying levels of aesthetic immersion and depth of transformative potential: dialoguing about, with and through art. The ArtSchol approach focuses on distinct pressure points to enter scholarly communities and aesthetic (inter)actions to nurture a community of confluence. These entry points include provocations with senior researchers, explorations with junior researchers and invited encounters with teacher educators. Dialoguing about, with and through the arts is intended to re-animate educational scholarship by interrupting the mundane, suspending existing habits and habitats and aesthetically nourishing comprehensive perception at individual and community levels. Our presentation aims to initiate collegial dialogue about this approach and its potential for catalysing transformation within educational scholarship.

Celebrating the Metamorphosis: Enacting Agency in a European Higher Education Collaboration

Sylvi Vigmo, Maria Bäcké

What is needed to make an Erasmus+-funded collaboration project work? The creation of a programme for higher education students funded by Erasmus+ would require a common foundation in EU frameworks, European values as well as the articulation of shared academic values. One example is proof of student achievement in the form of micro-credentials, badges, credits and these may signal different things. Badges and micro-credentials are more common in less formal learning situations, whereas the use of credits imply an adherence to the Bologna process within the academic course system and ECTS accreditation. Beneath the EU framework for higher education, and the conceptions of academic excellence in line with Svallfors and Bexell, lie the often undisclosed adherence to universal academic traditions and values. However, in the development of a programme for higher education students in a project funded by Erasmus+, it became evident that there was a lack of shared conceptual understanding among the partners. A common knowledge base regarding course and programme development and a unified approach to course design did not exist. Trust eroded. In this presentation and by drawing on fictionalised examples from the collaboration through the lens of Bourdieu's symbolic capital, our aim is to explore the intentional metamorphoses required to find common ground, those needed to enact agency for the sake of upholding academic values in European higher education collaborations, as well as those needed to make the decision to walk away when meaningful collaboration breaks down.

Meaningful Metamorphoses of Glück in Education: A Historical-Systematic Reconstruction

Marion Susanne Visotschnig

In times when wellbeing and resilience have become key educational aims, this paper presents insights from an ongoing study that examines the German notion of Glück in educational theory, which cannot be directly translated into English. Terms such as happiness, wellbeing, resilience, and luck each capture partial dimensions, but none of them encompasses its full semantic scope. Glück is not a fixed concept, but rather an educational ideal (cf. Humboldt) that has evolved historically and encompasses a range of meanings. Precisely this ambiguity makes Glück valuable for reflecting on educational ideals in times of change. In order to understand these metamorphoses, a historical and systematic examination is necessary (Benner, 1989). For this reason, the study methodologically applies a historical-systematic orientated reconstruction (Bellmann & Ehrenspeck, 2006) complemented with a genealogical perspective following Nietzsche, Foucault, and Saar. Findings highlight how the notion of Glück has metamorphosed between individual affect, collective responsibility, and normative educational aim. The paper offers a critical perspective on current discourses on wellbeing and resilience by revealing the historical depth and normative complexity of the notion of Glück.

Shame in the Classroom: Social Interaction, Affect, and Student Agency in a Delhi School

Bhabesh San San Wal

This study explores how shame is enacted and experienced as a classroom disciplinary practice in a low-fee private school in an unauthorized colony of Delhi, India. Using an ethnographic case study design, I conducted participant observation, semi-structured interviews with teachers and students, and participatory visual methods (student drawings) to capture the nuanced social interactions and emotions surrounding shaming in daily lessons. The findings reveal that teachers publicly use shame (e.g. scolding, ridiculing mistakes) as a means to enforce discipline and compliance. Educators often justified these tactics as culturally accepted “tough love” needed to build character, reflecting broader institutional norms that sustain shaming practices. These practices create an affective climate of anxiety and humiliation that can dampen student participation and well-being, yet students also exhibit agency in varied ways – from quiet resilience and peer support to subtle forms of resistance. The student-generated drawings provided insight into their internal perspectives, illustrating feelings of exclusion and hurt but also hopes for more respectful treatment. By foregrounding student voices and everyday classroom dynamics, the study demonstrates the value of participatory, multimodal methods in understanding affective and relational dimensions of learning. It contributes to discussions on social interaction in educational settings and calls for rethinking disciplinary approaches toward more inclusive, empathetic practices.

Uncovering the Complexity of Teachers' Beliefs: The Potential of Q Methodology in Pre-Post-Designs

Denis Weger

Teachers' beliefs are a central component of professional competence, yet researching them poses methodological challenges. Conventional approaches such as Likert-scale questionnaires or interviews tend to elicit socially desirable responses and struggle to capture the complexity and interconnectedness of belief systems. This contribution presents an intervention study with pre-service teachers (n=30) that employed Q methodology (Q) to investigate beliefs about multilingualism and linguistic diversity in education before and after a teacher education course. Q offers a distinctive approach to exploring beliefs by combining quantitative and qualitative techniques. Participants sort a set of statements into a predefined grid according to their level of agreement, thereby producing a holistic configuration of viewpoints. These sortings are then subjected to by-person factor analysis, which groups participants based on shared perspectives. The resulting factors represent coherent belief systems that can be qualitatively interpreted and contrasted. Applied in this study, Q revealed not only an overall shift from mixed to consistently positive orientations toward multilingualism but also nuanced dynamics such as the coexistence of seemingly contradictory elements within participants' belief structures. These insights underscore Q's capacity to capture internal logics, priorities, and interrelations of beliefs rather than reducing them to isolated items. The presentation will focus on the methodological advantages of Q, including its ability to uncover structured viewpoints, reveal subtle shifts in belief systems, and reduce bias from socially desirable responding. The session aims to stimulate discussion about Q's potential to enrich teacher education research and its broader applicability for examining complex belief dynamics in education.

Empirical Insights on Teacher Development and Student Growth through Action Research

Ildikó Zank

Action research was conducted within the framework of the international ProMeToM project in close collaboration with primary school teachers, integrating both pedagogical practice and empirical investigation. The interventions implemented during the action research cycles were designed to promote the joint development of metacognition, theory of mind, and epistemological awareness among students, with the underlying expectation that structured teacher-student collaboration would contribute to enhanced learning outcomes, improved problem-solving skills, more effective study habits, and strengthened capacities for self-assessment. Throughout these cycles, teachers engaged in systematic and sustained reflection on their own instructional practices, the dynamics of their interactions with students, and the outcomes of the interventions. This reflective process enabled educators to identify and critically examine professional dilemmas, uncertainties, and vulnerabilities that emerged in the classroom context, while simultaneously facilitating the exploration of alternative perspectives and strategies. By integrating reflection with active experimentation, teachers developed a heightened awareness of their professional practices and a reinforced commitment to ongoing pedagogical improvement, thereby contributing not only to student learning but also to the advancement of teacher professional development within complex educational settings.