EAPRIL 2025

25-27 NOVEMBER

VALLETTA, MALTA

BOOK OF ABSTRACTS

EAPRIL 2025 is jointly organised by:

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Session A 1

25 November 2025 09:00 - 10:30
Meeting Room 5
Workshop
Higher education

Improving innovative capacity of teams; working with the IC-scan

Keywords: Innovations in education, Organisational learning, School development, Team Learning
Interest group: CLOUD 12 - Leadership in Education

Educational innovation is essential but complex. In order to navigate in a constantly changing environment, to adapt quickly and to stay aligned with important social developments, insight into innovative capacity is crucial. From various studies, we have identified five elements that influence, in conjunction, the innovative capacity of an educational organization or team: change capital, human capital, social capital, structural capital and change & learning processes. Based on these elements, we have developed an innovative capacity scan. The aim of our workshop (a compressed change lab) is to let participants gain insight into the complex interplay of different elements influencing the innovative capacity of their team/organization by introducing participants to this scan and applying it directly into their own contextAt the end of the workshop, participants are equipped with a tool to assess the state of the influencing elements of the innovative capacity of their team and/or organization. In addition, the workshop functions as a catalyst for identifying new research directions. In this way, we offer practical tools to increase innovative capacity and to anchor sustainable innovations in educational practice.

Improving innovative capacity of teams; working with the IC-scan
Presenting Author: Harry Rorije, Hogeschool Utrecht, Netherlands; **Co-Author:**Remco Coppoolse, Utrecht University of applied science, Netherlands; **Co-Author:**Idwer Doosje, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Lydia Schaap, Utrecht University of Applied Sciences, Netherlands

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Session A 2

25 November 2025 09:00 - 10:30
Meeting Room 103
Workshop
Workplace learning

Level up! The evolution of authentic and hybrid learning environments over time.

Keywords: Authentic learning, Collaborative Learning, Communities of Learners and/or Practice, Professional Development
Interest group: CLOUD 05 - HRD & Workplace learning

How does a hybrid learning environment evolve from its initial point to maturity? What processes contribute to the ongoing development and growth of such collaboration, and which interventions can be employed to accelerate this progress? In this interactive workshop, participants will explore the developmental stages of hybrid learning environments, also known as public-private learning communities, through a playful approach. Using a specially designed game element, participants will actively engage with the dynamics of each stage. They will examine the characteristics, supporting mechanisms, and expected outcomes. By sharing practical experiences and reflecting on their own contexts, participants will gain deeper insights into how various elements drive sustainable development and how to design actionable next steps to strengthen these learning communities. The workshop aims to foster a nuanced understanding of how these learning communities evolve and how targeted interventions can support long-term impact, resilience, and innovation in diverse educational settings.

Level up! The evolution of authentic and hybrid learning environments over time.
Presenting Author: Mariëlle Stevens, Fontys University of Applied Sciences, Netherlands; **Presenting Author:**Miranda Snoeren, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Lia Spreeuwenberg, Fontys Hogeschool, Netherlands

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Session A 3

25 November 2025 09:00 - 10:30
Aula Prima
EAPRIL Spotlight Symposium
Higher education

Lesson Study as an Innovative Learning Approach in Future Teacher Education throughout Europe

Keywords: Collaborative Learning, Initial Teacher Education (Pre-service), Knowledge Building and Development, Professional Development, Team Learning
Interest group: CLOUD 01 - Teacher education
Chairperson: Margus Pedaste, University of Tartu, Estonia
Discussant: James Calleja, University of Malta, Faculty of Education, Malta

In this symposium, participants will learn about a European LIFT project that is focused on Lesson Study within Initial Teacher Education to address challenges due to shortages of teachers that leads to threat to the quality of education. We present an academic immersion programme, a Blueprint supporting teacher educators and students, and strategies for building a Lesson Study community. We posit that our concepts are adaptable to various European contexts and beyond. Therefore, the project involves partners from six European countries but seeks active discussions with the EAPRIL conference participants. We believe that the professional development approach applied in the LIFT project could be easily applied in various contexts in initial teacher education in countries of the participants. However, we also hope to engage the participants in giving feedback and discussing the lessons learnt in the LIFT project by sharing similar ideas from other projects to support teacher qualification in initial teacher education.

The Lesson Study in Initial Teacher Education
Presenting Author: Margus Pedaste, University of Tartu, Estonia; **Co-Author:**Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Shirley Tan, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Stéphane Clivaz, Lausanne University of Teacher Education, Switzerland, Switzerland

Education quality worldwide has a serious threat due to shortage of qualified teachers. Therefore, higher education institutions have to seek for innovative solutions to attract teacher education students and support them in initial teacher education (ITE). One of the potential innovative professional development approaches in ITE is Lesson Study. In this presentation we introduce The Lesson Study in Future Teacher Education (LIFT) project. This project aims to develop a European blueprint to support pre-service teachers (PSTs) and their teacher educators (TEs) in ITE. In the context of the LIFT project, six European countries (Netherlands, Ireland, Estonia, Cyprus, Portugal, Switzerland) will localise the blueprint in 14 ITE programmes. In addition, an online LS platform is

created to connect educators and researchers across countries. The studies in the context of the LIFT project enable all other European countries to localise the outcomes of the project in their specific contexts to support quality of ITE and to reduce teacher shortages.

LEAP week and Blueprint as tools for implementing Lesson Study in initial teacher education
Presenting Author:martijn willemse, Windesheim University of applied sciences, Netherlands; **Co-Author:**Siebrich de Vries, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**Stéphane Clivaz, Lausanne University of Teacher Education, Switzerland; **Co-Author:**Floortje Goettsch, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**João Pedro da Ponte, Instituto de Educação da Universidade de Lisboa, Portugal; **Co-Author:**Pia Hoznour, Lausanne University of Teacher Education, Switzerland

Lesson Study (LS) is an effective professional development approach for in-service teachers, but it has high potential in initial teacher education (ITE) as well. Therefore, we have developed in the context of The Lesson Study in Future Teacher Education (LIFT) project two tools to support adoption of LS in ITE – a LEAP week and Blueprint. LEAP week is an immersive week-long experience for Pre-Service Teachers (PSTs) and Teacher Educators (TEs) to give attendees first-hand experience of LS in both academic and school-based settings. The Blueprint is a toolbox to support teacher educators and preservice teachers to explore and use LS as a professional development process on ITE. In this presentation we introduce the purpose and goals of the LEAP week and Blueprint, discuss their main features, emerging insights, challenges, and implications for embedding LS within ITE programs.

Building of lesson study community to reach out teacher education institutions in Europe
Presenting Author: Margus Pedaste, University of Tartu, Estonia; **Co-Author:**Anni Küüsvek, Institute of Education, University of Tartu, Estonia; **Co-Author:**Liina Lepp, University of Tartu, Estonia; **Co-Author:**Äli Leijen, University of Tartu, Estonia

Lesson Study (LS) is an effective and engaging approach for professional development of in-service teachers, but it has been not widely applied in initial teacher education (ITE). Therefore, we are searching for new methods to reach teacher educators and educational policymakers across Europe. We introduce and discuss the outreach plan of the Lesson Study in Future Teacher Education (LIFT) project. This plan is targeted at the wider audience of teacher educators and researchers, pre-service teachers, in-service teachers, and policymakers. We discuss how to involve them in the international LS community to benefit from a LS repository, increase awareness about LS, engage in international and local discussions on LS. Finally, we share the lessons learnt in the LIFT project and invite the audience to discuss on potential collaboration and suggestions of better outreach to achieve the shared goals of the project team and the conference audience.

Session A 4

25 November 2025 09:00 - 10:30
Meeting Room 6
Workshop

A creative reflection on knowledge creation, -sharing and -utilization in knowledge networks

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Cooperative learning, Professionalisation of educators
Interest group: CLOUD 02 - Educators' professional development

Participation in knowledge networks have become an inevitable route for educational development and professionalization in the (Dutch) educational field (e.g. Hooge et. al, 2022). Knowledge utilization, creation and sharing takes place in knowledge networks. The effectiveness of these processes depends on a number of factors and mechanisms (De Vries, 2022; Van Schaik, 2020). In this workshop we reflect with the participants on the dilemma of knowledge creation, -sharing and utilization in a creative way. The Netherlands Initiative for Educational Research (NRO) will emphasize the importance of regional knowledge networks followed by the first results of our four-year study on twelve regional knowledge networks (Klein et. al, 2024). The participants of this workshop are asked to reflect on the issue of applying knowledge in their own (educational) practice by using art-based instruments. These reflections will be discussed in a world café form and confronted with the results of one of the Dutch regional networks in particular and the twelve networks in general.

A creative reflection on knowledge creation, -sharing and -utilization in knowledge networks
Presenting Author: Ton Klein, Oberon, Netherlands; **Presenting Author:**Patrick van Schaik, HZ University of Applied Sciences, Netherlands; **Presenting Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands; **Presenting Author:**Cedric van Drieberge, Netherlands Initiative for Education Research (NRO), Netherlands; **Co-Author:**Maren Van de Vrie, Oberon, Netherlands; **Co-Author:**Rene Streutker, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**Marieta Rosendaal, HZ University of Applied Sciences, Netherlands

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Session A 5

25 November 2025 09:00 - 10:30
Meeting Room 102
Workshop
Primary education

How to Enhance Social Entrepreneurship and Active Citizenship in Class? Practical Classroom Tools.

Keywords: Primary school education, Project-based learning, Social entrepreneurship, Sustainability
Interest group: CLOUD 10 - Education for Sustainability

"It's time to mainstream […] education with an action-oriented approach that helps young people understand their power to make a difference.(UNESCO, 2024).
This workshop addresses the empowering of future generations with the skills and mindset to become active citizens who are able to contribute to sustainable development by social entrepreneurial activity. In an Erasmus-funded Small-Scale Partnership in School Education project, a digital toolkit is currently being developed. In the workshop, this toolkit will be launched. After a brief introduction, participants will explore the website and the tools included in it by hands-on activities, and subsequently discuss their experiences. The result is twofold: on the one hand the workshop provides participants concrete ideas and tools for empowering future generations by an action-oriented learning approach and on the other hand it provides the designers input for further development of the toolkit.

How to Enhance Social Entrepreneurship and Active Citizenship in Class? Practical Classroom Tools.
Presenting Author: Eva Kuijpers, Marnix Academie, University of Applied Sciences, Netherlands; **Presenting Author:**Marijke van Voorthuijsen, Marnix Academie (PABO), Netherlands; **Co-Author:**Catherine Rhoden, PXL, University of Applied Sciences, Belgium; **Co-Author:**Stella van der Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Stijn Hulshof, Marnix Academie, University of Applied Sciences, Netherlands

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Session A 6

25 November 2025 09:00 - 10:30
Meeting Room 101

Workshop

AI-Enhanced Writing Instruction: Leveraging LLMs to Support Student Revision

Keywords: Instructional Design and Instructional Strategies, Social interaction, Technology Enhanced Learning, Writing
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

This hands-on workshop demonstrates how Large Language Models (LLMs) can effectively scaffold students' writing processes. Although writing skills are critical to academic success, many students struggle with composition—particularly revision. LLMs provide valuable support through real-time feedback, text suggestions, and assistance with ideation and revision. Successful implementation, however, requires balancing established pedagogical approaches with an understanding of LLM capabilities and limitations.This workshop showcases practical strategies for integrating traditional writing instruction with LLM-enhanced approaches, focusing on the crucial but often overlooked revision phase. Through interactive activities, participants will learn how LLMs can generate authentic reader responses to students' functional texts, providing feedback focused on communicative effectiveness rather than superficial features or summative scoring. This reader-response approach helps students understand the real-world impact of their writing choices.Participants will create and evaluate prompts for generating effective feedback, explore strategies for implementation in the classroom, and critically evaluate the opportunities and constraints of AI-assisted writing instruction. This workshop targets teacher educators, school-based trainers, and classroom teachers seeking to thoughtfully enhance writing instruction through strategic integration of AI tools.

AI-Enhanced Writing Instruction: Leveraging LLMs to Support Student Revision
Presenting Author: Fabian Grünig, St.Gallen University of Teacher Education, Switzerland; **Presenting Author:**Valentin Unger, St.Gallen University of Teacher Education, Switzerland

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Session A 7

25 November 2025 09:00 - 10:30
Meeting Room 3
EAPRIL Spotlight Session
Lifelong learning

Collaborative Leadership as a Path to Authenticity: The role of practitioner-researchers in ELNE

Keywords: Leadership development, Organisation of educational research, Peer Interaction / Learning, Stakeholder partnerships
Interest group: CLOUD 12 - Leadership in Education

This spotlight session introduces the Educational Leadership Network Europe (ELNE), coordinated by the European Federation of Education Employers (EFEE), and explores how EAPRIL's practitioner-researchers can actively contribute to its growing community. ELNE is a European network dedicated to strengthening collaborative educational leadership by bridging research, practice, and policy. The session will present ELNE's mission, activities, and current thematic focus 'Collaborative Educational and School Leadership – Experimenting Together'. Participants will discover opportunities to publish research summaries and good practices in ELNE Journals, engage in the European Education Month, and shape policy recommendations through their work. Designed as both an introduction and a dialogue, the session will include interactive elements to reflect on leadership, authenticity, and community in education today. EAPRIL members are warmly invited to join ELNE's mission and bring their research and real-world insights into a wider European conversation on leadership and school development.

Collaborative Leadership as a Path to Authenticity: The role of practitioner-researchers in ELNE
Presenting Author: Silvia Pesini Escartín, European Federation of Education Employers, Belgium

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Session A 8

25 November 2025 09:00 - 10:30
Lecture Room 201
EAPRIL Spotlight Session
Primary education

Authentic Computational Thinking for Children through Play and Puzzles

Keywords: Early childhood education, Primary school education, Problem Solving, STEM
Interest group:

Artificial Intelligence (AI) is increasingly shaping how children live, learn, and interact with technology. Yet, most young learners encounter AI passively, using tools without understanding the thinking that underpins them. Developing Computational Thinking (CT), the ability to decompose problems, recognise patterns, and design structured solutions, is essential for preparing children to engage critically with technology and AI. However, early CT education often faces challenges: an over-reliance on coding and screens, and abstract teaching approaches that fail to connect with children's natural ways of playing and problem-solving.This session highlights two Maltese initiatives that address these challenges through authentic, playful experiences. *Mystery at the Museum*, a narrative-based board game for ages 4–7, engages children in planning, predicting, and correcting solutions collaboratively, fostering early CT skills without screen dependency. The *Bebras Challenge*, implemented nationally for ages 8–12, introduces CT through short, accessible puzzles that encourage algorithmic thinking and resilience while remaining inclusive for diverse learners. Participants will engage hands-on with both activities, experiencing how CT can be taught meaningfully through play and puzzles. The session offers practical insights and resources for educators seeking to build CT foundations early, empowering children to think like computer scientists and critically navigate an AI-rich future.

Authentic Computational Thinking for Children through Play and Puzzles
Presenting Author: Leonard Busuttil, University of Malta, Malta; **Co-Author:**Diane Vassallo, University of Malta, Malta; **Co-Author:**Christian Colombo, University of Malta, Malta; **Co-Author:**Vanessa Camilleri, University of Malta, Malta

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Session A 9

25 November 2025 09:00 - 10:30
Meeting Room 2
Present & Discuss
Higher education, Primary education

Present & Discuss: AI, Safety, and Motivation: Rethinking Educational Design

Keywords: Artificial intelligence, Curricula, Distance Education, Higher education, Innovations in education, Instructional Design and Instructional Strategies, Motivation, Primary school education, Professional Development, School development, STEM, Web-Based Learning
Interest group: CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Alfred Steinbach, Switzerland

EDU-AID: Educator Development Using AI for Instructional Design
Keywords: Artificial intelligence, Curricula, Instructional Design and Instructional Strategies, Professional Development
Presenting Author: Milou de Smet, Thomas More Mechelen, Belgium; **Presenting Author:**Wilfried Admiraal, Oslo Metropolitan University, Norway; **Co-Author:**Hanneke Theelen, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Nicholas Decleyre, Thomas More, Belgium; **Co-Author:**Mitte Schroeven, Thomas More, Belgium; **Co-Author:**Mark Goossens, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Daiane Seibert, Thomas More, Belgium; **Co-Author:**Heidi Verlinden, Thomas More, Belgium; **Co-Author:**Kirsten Vandermeulen, Thomas More University College, Belgium; **Co-Author:**Marcel Van der Klink, Zuyd, University of Applied Sciences, Netherlands

How can AI offer just-in-time, evidence-based, and individualised support and professional development for educators in higher education? EDU-AID is a three-year Erasmus+ KA2 project exploring this question through the development of an open-access AI-driven feedback tool and repository. We combine a literature study, practice-based research with user-centred design and participatory input from educators, continuous professional development (CPD) providers, and educational developers across Europe. Through an iterative process, we develop an AI-empowered feedback tool that support educators in higher education to design and re-design their teaching based on a repository with literature on design principles for effective teaching methods (N > 2500). The feedback tool respond to diverse teaching profiles, each offering feedback tailored to context, discipline, and user goals. In this session, we present the project rationale, theoretical foundation, and initial design steps — including persona-based user research, a large-scale literature scan, and the tool's architecture. Participants will interact with an early prototype and share experiences, needs, and critical reflections on how such a tool could support authentic CPD in practice. The session opens a dialogue on how AI can be developed with educators, instead of just for them.

Utilizing Generative AI for Online Course Creation
Keywords: Artificial intelligence, Distance Education, Higher education, Web-Based Learning
Presenting Author: Yasuhisa Kato, Tokyo Online University, Japan; **Co-Author:**Kou Yukawa, Tokyo Online University, Japan

This study explores the capabilities of generative AI not only in the comprehensive development of online courses - from syllabus design to assessment - but also in course operations, including the evaluation of student assignments. Using AI tools such as ChatGPT, Gemini, Claude, Deepbrain AI and Napkin AI, we conducted an in-depth analysis of automated processes for generating lecture slides, scripts, video content, quizzes, report assignments and initial feedback on student work.The results show that generative AI can significantly reduce the time and effort required to create and manage courses. While the AI tools successfully generated substantial components of the course materials, challenges related to content accuracy, pedagogical appropriateness, and ethical considerations were consistently observed. Human oversight remained critical to ensure educational quality and integrity.This research highlights the potential of generative AI to reshape the future of higher education by improving the efficiency of course development and operation. At the same time, it highlights the need to address critical issues such as accuracy, fairness and responsible use. Future work will focus on advancing AI applications towards personalised student support through adaptive learning chatbots and automated response systems.

Measuring What Matters: Motivation and its Impact on Exam Outcomes in Statistics Education
Keywords: Artificial intelligence, Higher education, Motivation, STEM
Presenting Author: Sigrún Helga Lund, University of Iceland School of Engineering and Physical Sciences, Iceland; **Co-Author:**Hafsteinn Einarsson, University of Iceland, Iceland; **Co-Author:**Bjarnheiður Kristinsdóttir, University of Iceland, School of Education, Iceland; **Co-Author:**Anna Helga Jónsdóttir, University of Iceland, School of Engineering and Physical Sciences, Iceland; **Co-Author:**Farzaneh Saadati, Universidad de Chile, Instituto de Estudios Avanzados en Educación, Chile

This study investigates the relationship between student motivation in learning mathematics and their academic performance on midterm exams in university-level statistics courses. The previously validated MBtML questionnaire assessing student motivation was translated into Icelandic, back-translated into Spanish, and psychometrically validated through confirmatory factor analysis (CFA). The CFA, conducted on a sample of 193 students, confirmed the validity of the questionnaire's original structure with comparative fit index of 0.88. Subsequently, associative analysis using midterm exam scores from 170 students was performed. In a linear regression model with backward selection, seven items associated with exam scores. Those items measured beliefs about mathematics, self efficacy and intrinsic goals, whereas no items measuring extrinsic goals were selected in the model. These findings underscore the impact of motivational constructs on academic achievement. Future research will explore methods to enhance student motivation using motivational interviewing through an interactive chatbot. This approach will be evaluated in a double-blinded, randomized controlled trial, aiming to further refine strategies for improving student engagement and performance in mathematics education.

Safe Schools by Design: Visual Participatory Approaches to Creating Safe Learning Environments
Keywords: Innovations in education, Primary school education, Professional Development, School development
Presenting Author: Jan Grannäs, University of Gävle, Sweden; **Co-Author:**Anneli Frelin, University of Gävle, Sweden; **Co-Author:**Karolina Lorentzi, Tengbom Architects, Stockholm, Sweden; **Co-Author:**Marie Lundmark Bergström, Huddinge Municipality, Sweden

This study investigates how physical, organizational and social factors influence school safety perceptions, addressing the research question: How can participatory design processes contribute to enhancing school safety? Using a case study methodology in an aging Swedish school scheduled for demolition, we collected data through evaluations in the form of Mapping exercises, and Diamond Ranking activities with pedagogical staff. Results indicate that adult presence, clearly defined spaces, and sense of ownership significantly contribute to perceived safety, while poorly designed areas and areas without clear ownership were consistently identified as unsafe. The findings reveal that thoughtful architectural design needs to be coupled with user involvement to improve perceptions of safety. We conclude that participatory design approaches empower school communities to create environments that support children's fundamental right to safety and well-being, providing valuable insights for educators, designers and other stakeholders developing new school facilities.

Session B 1

25 November 2025 11:00 - 12:30
Meeting Room 4
Case study
Higher education, Secondary education

Case Study: Student Engagement Through Practice-Based STEM and STEAM Education

Keywords: Authentic learning, Continuing professional development in Teachers, Creativity, Curricula, Game-based learning / Gamification, Secondary school education, STEM
Interest group: CLOUD 02 - Educators' professional development, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Robert Reuter, University of Luxembourg, Luxembourg

Hands-on!: In the Machine Room and Gearbox of Science and STEAM Education
Keywords: Authentic learning, Creativity, Game-based learning / Gamification, STEM

Presenting Author: Claudia Buser, St.Gallen University of Teacher Education (PHSG), Switzerland; **Co-Author:**Alfred Steinbach, University of Teacher Education St.Gallen (PHSG), Institute of Mathematics, Science and Technology Education, Switzerland

Laboratory experiments have always been at the core of scientific revolutions [1]. The use of experiments marked the beginning of modern science and enabled the embodiment of its insights in the technology that shape our world. And yet, we increasingly witness the absence of hand-on experiments in Swiss secondary education. A paradox, given that this is arguably the very essence of authentic STEAM education. The more digital our educational practices become, the more deliberately we must cultivate the role of the hand and the experiment resulting in a type of dialectic between hand, experiment and AI. Meaningful STEAM education has to be comprehensive and polyphonic. This case study presents an interdisciplinary approach that enables students to experience science from within, – somehow from the «machine room and gearbox» of scientific practice. Nowhere is science more real, more beautiful and more engaging. We show how high-tech instruments such as titrators can be paired with dragons and riddles. We show how love, betrayal and crime are told through the lens of molecular biology using PCR (Polymerase-Chain-Reaction) and electrophoresis. Our Berzelius Project [2] is an experimental learning lab that merges high-tech instruments and multimedia lab journals with AI-assisted storytelling and playful forms of science communication.

Student Experiences in a High School STEM-Integrated Program on Mechanobiology
Keywords: Continuing professional development in Teachers, Curricula, Secondary school education, STEM
Presenting Author: Amanda Cottone, University of Pennsylvania, United States; **Co-Author:**Rebecca Wells, University of Pennsylvania, United States; **Co-Author:**Susan Yoon, University of Pennsylvania, United States; **Co-Author:**Talar Kaloustian, University of Pennsylvania, United States

Understanding complex, real-world issues and engaging in problem-solving using interdisciplinary STEM perspectives is essential for prosperity in education and society. In this case study, we investigated STEM-integrated learning by following the classroom implementation of a newly developed, three-lesson unit designed by a teacher during a summer research experience for teachers (RET) in mechanobiology. Mechanobiology is an emerging field that integrates biology, engineering, chemistry and physics to explore how cells and tissues sense and respond to forces in their environment. The lesson focused on highly interdisciplinary concepts, such as piezoelectricity and how this property, which refers to the ability of a material to generate an electrical charge when pushed or squeezed, can be used to design tissue scaffolds to repair fractured bone and damaged cartilage in humans. We used video observations and pre/post surveys to examine the impact of the unit on high school student learning. We aimed to assess student outcomes and identify strategies for teaching such STEM-integrated curriculum effectively. Evaluations demonstrate that the unit increased some students' interest in studying interdisciplinary STEM and deepened most students' knowledge connecting STEM fields and its real-world applications; however, cognitive load accompanying the unit should be mitigated going forward.

Session B 2

25 November 2025 11:00 - 12:30
Lecture Room 201
Case study
Higher education

Case Study: Innovative Pathways for Professional and Academic Development in Higher Education

Keywords: Continuing professional development in Teachers, Doctoral education (PhD education), Higher education, Professional Development, Professionalisation of educators, Workplace learning
Interest group: CLOUD 02 - Educators' professional development, CLOUD 05 - HRD & Workplace learning
Chairperson: Kerstin Helker-Schlotmann, Germany

Professional Doctorate: a new learning trajectory for practitioners at level 8
Keywords: Continuing professional development in Teachers, Doctoral education (PhD education), Higher education, Workplace learning
Presenting Author: Anje Ros, Fontys University of Applied Sciences, Netherlands; **Presenting Author:**Lisette Munneke, Utrecht University of Applied Sciences, Netherlands

In the Netherlands, the Professional Doctorate (PD) has recently been developed as a practice-oriented variant of a PhD. The core aim is to educate highly skilled professionals who can address complex profession-oriented knowledge and -design questions, and thus contribute to sustainable innovation. Practice-based research is an import task in the learning trajectories. . Currently, a pilot is underway to assess whether PD candidates actually achieve EQF qualification level 8. The PD program is organized into several clusters, each focusing on different domains such as Health & Wellbeing, Maritime, Technology & Digitalization, and Learning and Professionalization. The Learning and Professionalization cluster specifically aims to enhance the skills and knowledge of professionals, enabling them to foster continuous improvement and innovation in educational and professional settings. In this domain, 7 candidates started in 2023-2024 who recently received a go during the Go-no go moment. The main challenge is to formulate indicators for level 8. During this session, we will reflect on the insights we have gained as a Graduate Committee and discuss the challenges we face.

Creating Connections Through a Learning Network: Supporting Programme Directors Across Faculties
Keywords: Continuing professional development in Teachers, Higher education, Professional Development, Professionalisation of educators
Presenting Author: Brecht Nijssen, Hasselt University, Belgium; **Co-Author:**Wendy Schouteden, Hasselt University, Belgium

As the central educational support service of a Belgian university, we launched a Learning Network in 2023 to strengthen both information sharing and peer connection among programme directors. This initiative supports directors on key educational themes such as curriculum design, quality assurance, and educational leadership. While we share insights passively through internal platforms, experience shows that lecturers and directors need active, face-to-face opportunities to exchange good practices and engage in community-building.Inspired by research (Bos et al., 2023), which identifies student development and innovative problem-solving as primary motivations for learning communities, we also aim to foster professional growth among staff. Although participating directors are highly engaged and recognize the value of the Learning Network, we currently reach only about 50%, largely due to limited formal time allocations (20% appointments) and high workloads. This raises key questions: How can we increase attendance and engagement? Should professional development be made mandatory and if so, would that undermine the voluntary, community-based nature of the initiative? We invite participants to reflect on these challenges during an interactive session using Wooclap, to share experiences, insights, and strategies for strengthening networking and educational collaboration in higher education.

Session B 3

25 November 2025 11:00 - 12:30
Meeting Room 3
Case study
Higher education

Case Study: Exploring Cross-Disciplinary Approaches to Higher Education

Keywords: Collaborative Learning, Competence-based education, Curricula, Higher education, Language Education, Project-based learning
Interest group: CLOUD 04 - Improving learning and well-being
Chairperson: Paula Waatainen, Canada

Designing an integrated and future oriented engineering education curriculum
Keywords: Collaborative Learning, Competence-based education, Curricula, Higher education
Presenting Author: Chantal Brans, Eindhoven University of Technology, Netherlands; **Co-Author:**Ana Valencia, Eindhoven University of Technology, Netherlands; **Co-Author:**Isabelle Reymen, Eindhoven University of Technology, Netherlands; **Co-Author:**Nienke Nieveen, Eindhoven University of Technology, Netherlands

Eindhoven University of Technology (TU/e)'s education vision aims to prepare students for future challenges by developing transversal skills and reflexive competencies alongside disciplinary knowledge. Current efforts result in extra competences added to the curricula, leading to overloaded and less focused/incoherent programs (Habbal et al., 2024). A design team at TU/e, led by two education designers and nine co-creators, seeks, as part of an overarching project designing the university of the future, to design a curriculum to support the above mentioned development of students. The project follows a systematic five-phase design research approach, including literature screening, clustering of characteristics, design of prototypes, aligning, and validating prototypes. The project identified three complementary rationales for future learning: individual student choices, collaborative learning, and outside world. Three curricula were designed through iterative processes, with sub-teams working on different rationales. Based on alignment with the designers of the different

designs, it was concluded that the rationales function as complementary layers in a curriculum, creating a rich learning environment. The integrated design is a learner-focused curriculum, balancing design freedom and structure. The next project phase involves evaluating and validating the prototypes in internal and external sessions.

Project-based language learning in higher education: Insights beyond the language classroom
Keywords: Competence-based education, Higher education, Language Education, Project-based learning
Presenting Author: Claudio Schekulin, University of Applied Sciences FH Kufstein Tirol, Austria

Project-based learning is a key development in today's higher education environment. While language teaching has undergone its own communicative and "task-based" turn, which can be considered a precursor to more fully-fledged project-based approaches, it appears that there is a reluctance among language teaching professionals to embark on the logical next step of teaching in a project-based format. This presentation will report on a case where the syllabus structure of certain ESP (English for Specific Purposes) courses was redesigned in line with the principles of project-based learning. The new structure was implemented by the author of this submission, a language course coordinator at an Austrian university of applied sciences, in collaboration with adjunct language teaching faculty teaching at the institution in question. The presentation will lay out the benefits of the approach and discuss challenges, e.g., facilitating compensation work for absent students. In conclusion, it will be argued that the project-based format and the insights gained from its implementation could fruitfully be applied to teaching in higher education more generally. This is particularly true in light of the fact that the trend towards EMI (English Medium Instruction) increasingly introduces a language and communication element into the teaching of other subjects.

Session B 4

25 November 2025 11:00 - 12:30
Meeting Room 101
Workshop
Workplace learning

Attractive Employership in Education: A Hands-On Workshop

Keywords: Organisational learning, Practice-based research (methodology), Professional Development, Work environments
Interest group: CLOUD 05 - HRD & Workplace learning

This interactive workshop introduces participants to *LERAAR+*, a Dutch-Flemish Interreg research project aimed at strengthening schools' capacity to become more attractive employers. The core objective of the project is to develop scientifically grounded and practice-tested tools that helps schools and school boards: 1) to create attractive jobs content, 2) to improve career paths, and 3) to support professional learning in relation to career development. These tools are co-created in design teams, consisting of school leaders/school boards and researchers.
In this 90-minute workshop, participants engage with tools developed in co-creation addressing topics such as internal mobility, onboarding of new teachers, and personalized learning opportunities. Participants will become acquainted with developed tools and will explore the design approach themselves. Participants will leave the session with insights into the design process and concrete ideas for improving long-term teacher engagement in their own contexts.

Attractive Employership in Education: A Hands-On Workshop
Presenting Author: Anne-Marieke van Loon, Fontys University of Applied Science, Netherlands; **Co-Author:**Dick Siesling, Fontys University of Applied Science, Netherlands; **Co-Author:**Henderijn Heldens, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Hannelore De Greve, Karel De Grote University College, Belgium

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Session B 5

25 November 2025 11:00 - 12:30
Meeting Room 103
Workshop
Primary education

Complexity of Leadership for Practice Based Research in Learning Organizations

Keywords: Leadership development, Peer Interaction / Learning, Practice-based research (methodology), Primary school education
Interest group: CLOUD 12 - Leadership in Education

In this workshop, we explore the multifaceted role of leadership in practice-based research within primary schools. As primary school leaders, we embraced a dual role: enhancing practice-based research within our own schools while also collaborating with peers on a literature review of educational research practices. In the workshop, we will begin by expanding on this dual role, sharing our experiences and insights into how it has shaped our perspectives and influenced our everyday leadership actions. Next, we engage in a dialogue about the complexity of implementing practice-based research in schools. Together, we examine the challenges and successes we have encountered and inspire one another by sharing diverse approaches to fostering research-informed practice. What has this journey brought us? Through interactive sessions and group discussions, we explore the value of practice-based research, exchange context-specific insights, and spark innovative ideas. Participants will leave with practical strategies they can apply in their own schools—all with the overarching goal of advancing growth and development within our educational communities.

Complexity of Leadership for Practice Based Research in Learning Organizations
Presenting Author: Loes van Wessum, Windesheim Zwolle, Netherlands; **Co-Author:**Gertine Hazelaar, obs groenehoek, Netherlands; **Co-Author:**Mieke Alkemade, fedra, Netherlands

In this workshop, we explore the multifaceted role of leadership in practice-based research within primary schools. As primary school leaders, we embraced a dual role: enhancing practice-based research within our own schools while also collaborating with peers on a literature review of educational research practices. In the workshop, we will begin by expanding on this dual role, sharing our experiences and insights into how it has shaped our perspectives and influenced our everyday leadership actions. Next, we engage in a dialogue about the complexity of implementing practice-based research in schools. Together, we examine the challenges and successes we have encountered and inspire one another by sharing diverse approaches to fostering research-informed practice. What has this journey brought us? Through interactive sessions and group discussions, we explore the value of practice-based research, exchange context-specific insights, and spark innovative ideas. Participants will leave with practical strategies they can apply in their own schools—all with the overarching goal of advancing growth and development within our educational communities.

Session B 6

25 November 2025 11:00 - 12:30
Meeting Room 5
Workshop
Higher education

The Lighthouse Differentiation Method - A Step-by-Step Approach for (Future) Teachers

Keywords: Continuing professional development in Teachers, Innovations in education, Instructional Design and Instructional Strategies, Primary school education
Interest group: CLOUD 08 - Diversity & equality in different contexts

This workshop introduces the Lighthouse Differentiation Method, a visual and interactive approach developed as part of the PhD project *Dialogic Differentiation* at Radboud University. Designed to make differentiation more manageable, the method breaks down complex instructional decisions into clear, actionable steps. At its core is a lighthouse-shaped poster with color-coded segments, each linked to cards representing key aspects of differentiation (e.g., instructional design, assessment, grouping, classroom management). Participants use these cards to collaboratively design or reflect on differentiated lessons.Though originally intended for pre-service primary school teachers, the method has proven effective across various educational settings and experience levels.Aligned with themes of educational innovation and practice-based research, the workshop offers a hands-on experience rooted in both theory and practice. It also explores how tangible tools like the lighthouse differentiation poster and cards can be integrated with AI applications to support inclusive, adaptive teaching. Ultimately, the method aims to empower teachers to become confident and responsive differentiators in diverse classrooms.

The Lighthouse Differentiation Method - A Step-by-Step Approach for (Future) Teachers
Presenting Author: Milfed Ameziane, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Mirjam Heemskerk - van der Sprong, The Hague University of Applied Sciences, Netherlands

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Session B 7

25 November 2025 11:00 - 12:30
Meeting Room 6
Workshop
Higher education

Making learning visible: collaboratively designing assessment for sustainability education

Keywords: Assessment and evaluation, Collaborative Learning, Competence-based education, Sustainability
Interest group: CLOUD 10 - Education for Sustainability

Education for Sustainable Development (ESD) challenges educators to foster critical, reflexive, and transformative learning in response to complex sustainability issues. While many higher education institutions have embraced transformative pedagogies, assessment practices often lag behind, remaining tied to output-based formats that inadequately capture personal, emergent, and value-driven learning. This workshop addresses this gap by introducing co-design methods developed through a Comenius Teaching Fellow project, grounded in design-based research. Participants will engage with tools from the 'ESD Assessment Design Toolkit' and follow a pressure-cooker design process to develop innovative assessment elements. The process begins by exploring students' voices to identify meaningful learning moments, moves through defining personal assessment challenges, and culminates in prototyping ESD-aligned assessment elements. The workshop offers hands-on experience in designing assessment that supports learner agency, complexity navigation, and the integration of uncertainty and multiple perspectives. Participants leave with tangible ideas to apply in their own context. Ultimately, this session responds to urgent calls in ESD literature to stop reinventing frameworks and instead focus on operationalising sustainability assessment meaningfully in real educational settings.

Making learning visible: collaboratively designing assessment for sustainability education
Presenting Author: Lauren Verheijen, Breda University of Applied Sciences, Netherlands

Education for Sustainable Development (ESD) challenges educators to foster critical, reflexive, and transformative learning in response to complex sustainability issues. While many higher education institutions have embraced transformative pedagogies, assessment practices often lag behind, remaining tied to output-based formats that inadequately capture personal, emergent, and value-driven learning. This workshop addresses this gap by introducing co-design methods developed through a Comenius Teaching Fellow project, grounded in design-based research. Participants will engage with tools from the 'ESD Assessment Design Toolkit' and follow a pressure-cooker design process to develop innovative assessment elements. The process begins by exploring students' voices to identify meaningful learning moments, moves through defining personal assessment challenges, and culminates in prototyping ESD-aligned assessment elements. The workshop offers hands-on experience in designing assessment that supports learner agency, complexity navigation, and the integration of uncertainty and multiple perspectives. Participants leave with tangible ideas to apply in their own context. Ultimately, this session responds to urgent calls in ESD literature to stop reinventing frameworks and instead focus on operationalising sustainability assessment meaningfully in real educational settings.

Session B 8

25 November 2025 11:00 - 12:30
Meeting Room 102
Workshop
Higher education

Protecting academic integrity in the age of AI: (Re)Designing Curricula for authentic student work

Keywords: Artificial intelligence, Assessment and evaluation, Curricula, Higher education
Interest group:

Generative AI has rapidly become ubiquitous in society, forcing educators to rethink how we design curricula and protect academic integrity. Traditional plagiarism checks are no longer sufficient, yet examination boards must still ensure assessment validity and reliability to uphold their duty in awarding degrees. In our recent case study "From detection to dialogue: the process of developing a fraud prevention policy," we detailed the creation of a pedagogical-didactic model for academic fraud prevention that shifts the focus from after-the-fact detection to proactive integrity during the learning process. Implementing this new policy requires interventions across all facets of curriculum design. This workshop builds on those insights, inviting participants to reassess their curriculum and assessment practices through the lens of the new fraud prevention model, using a revisited version of Van den Akker's spider's web framework (2003). Through interactive activities and guided reflection, participants will learn to design a robust, "AI-proof" learning environment that fosters authenticity in student work and embeds integrity by design.

Protecting academic integrity in the age of AI: (Re)Designing Curricula for authentic student work
Presenting Author: Brigit Kolen, Fontys University of Applied Sciences, Netherlands; **Presenting Author:**Coreline Haasakker, Fontys Hogeschool, Netherlands

Generative AI has rapidly become ubiquitous in society, forcing educators to rethink how we design curricula and protect academic integrity. Traditional plagiarism checks are no longer sufficient, yet examination boards must still ensure assessment validity and reliability to uphold their duty in awarding degrees. In our recent case study "From detection to dialogue: the process of developing a fraud prevention policy," we detailed the creation of a pedagogical-didactic model for academic fraud prevention that shifts the focus from after-the-fact detection to proactive integrity during the learning process. Implementing this new policy requires interventions across all facets of curriculum design. This workshop builds on those insights, inviting participants to reassess their curriculum and assessment practices through the lens of the new fraud prevention model, using a revisited version of Van den Akker's spider's web framework (2003). Through interactive activities and guided reflection, participants will learn to design a robust, "AI-proof" learning environment that fosters authenticity in student work and embeds integrity by design.

Session B 9

25 November 2025 11:00 - 12:30
Meeting Room 2
Present & Discuss
Early childhood education, Higher education, Secondary education

Present & Discuss: Navigating Expectations and Inclusive Pedagogies in Language and Early Education

Keywords: Bilingual education, Early childhood education, Educational Effectiveness and quality of education, Emotions and emotional development, Higher education, In-service Teacher Training, Inclusivity, Language Education, Lifelong Learning, Pre-school education / kindergarten, Secondary school education
Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development
Chairperson: Kati Mäkitalo, University of Oulu, Finland

Cultivating Authenticity: Promoting children's social-emotional competence through Teacher Training
Keywords: Early childhood education, Emotions and emotional development, In-service Teacher Training, Lifelong Learning
Presenting Author: Niva Dolev, Kinneret College on the Sea of Galilee, Israel; **Co-Author:**meirav Hen, Tel-Hai Academic College & Golan Research Institut, Israel

Preschool teachers' social–emotional competence (SEC) is essential for fostering authentic teacher–child relationships, creating emotionally supportive learning environments, and addressing young children's developmental needs. These human-centred qualities are more critical than ever in times of rapid technological changes.The present qualitative study examined the perceived impact of a targeted SEC training program for preschool teachers (n = 204) on three key dimensions: (1) their own social–emotional competencies, (2) their motivation to promote SEC among their students, and (3) the ways they implemented social–emotional learning (SEL) practices in their classrooms following the training. The analysis revealed that participants reported meaningful personal insights and growth in their own SEC, a deeper understanding of its relevance to early childhood education, and described employing a range of authentic, child-centred strategies and tools to support students' emotional development, grounded in their lived experiences as educators.
In line with the conference theme, this study highlights how cultivating SEC in early childhood educators supports the development of genuine, empathetic teacher–student relationships and the ability to develop social-emotional skills which are—an essential counterbalance to the impersonal nature of emerging technologies and essential skills to cope with constantly changing landscapes.

What expectations do early childhood teachers face in their first job?
Keywords: Early childhood education, Educational Effectiveness and quality of education, Higher education, Pre-school education / kindergarten
Presenting Author: Marianne Størkson, Western Norway University of Applied Sciences (HVL), Norway; **Co-Author:**Helga Aadland, Western Norway University of Applied Sciences, Faculty of Education, Arts and Sports, Norway; **Co-Author:**Trond Egil Arnesen, Western Norway University of Applied Sciences, Norway; **Co-Author:**Bendik Sierra, Western Norway University of Applied Sciences (HVL), Norway

In this study we discuss the development of early childhood teacher education and the characteristics of agency called for in newly graduated kindergarten teachers in Norway. The study is part of a larger educational design research (EDR) project that explore early childhood teacher education, and develop research-based, practice-oriented education based on student involvement.We used semi-structured interviews and thematic analysis to investigate the agency characteristics called for by kindergarten managers and pedagogical leaders. With inspiration from Braun and Clarke (2006) we conducted a thematic analysis based on Charteris and Smardon's (2018) typology of agency: individual-oriented agency, relational agency, ecological agency, and new materialist agency. The findings show that kindergarten managers and pedagogical leaders call for a complex form of agency, touching on all the categories in Charteris and Smardon's (2018) typology. The respondents want newly graduated kindergarten teachers to be dynamic in collaboration with their colleagues, between the environments they move in, and through the use of knowledge, skills, and experiences. This points to an ecological perspective on agency, arising from the dynamic interplay between the individual and the context they are part of, involving capacities and resources from the past, affecting the present, and is oriented towards the future.

Making CLIL more effective and inclusive: A Delphi study on implementation in secondary education.
Keywords: Bilingual education, Educational Effectiveness and quality of education, Inclusivity, Secondary school education
Presenting Author: Ellen De Bruyne, AP University of Applied Sciences and Arts Antwerp, Belgium; **Presenting Author:**Eva Faes, Artesis Plantijn University College, Belgium; **Co-Author:**Mathea Simons, University of Antwerp, Belgium; **Co-Author:**Jordi Casteleyn, Antwerp University, Belgium

This study explores key levers for enhancing the effectiveness and inclusivity of Content and Language Integrated Learning (CLIL). Previous research has focused mainly on CLIL outcomes, particularly its success in promoting vocabulary acquisition and receptive language skills. CLIL also aspires to offer an egalitarian model of multilingual education. However, studies show that CLIL can be selective, undermining its inclusive potential.To date, limited attention has been given to the pedagogical, organizational, and policy-related conditions that support successful CLIL implementation. Since its formal introduction in Flanders in 2014, approximately 20% of general secondary schools have adopted CLIL. Nonetheless, concerns persist regarding its effectiveness and (self-)selectivity. This study investigates which levers stakeholders in Flemish secondary education perceive as crucial for fostering more effective and inclusive CLIL practices. It employs the Delphi method, an iterative process used to build expert consensus. Participants included professionals from both CLIL and non-CLIL schools: CLIL teachers, subject-matter teachers, language teachers, and school leaders. The central research question was: *What are the key levers for more effective and inclusive CLIL education (in Flanders), and how can these be realized?* The findings are under embargo, pending release by the Flemish Ministry of Education, and are expected before the summer.

Exploring the Landscape of Early Childhood Bilingualism: A Bibliometric Approach
Keywords: Bilingual education, Early childhood education, Language Education, Pre-school education / kindergarten
Presenting Author: Eylül Balâ Altunay, Kocaeli University, Turkiye; **Co-Author:**Duygu Demirtaş, Kocaeli University, Turkiye

This study conducts a bibliometric analysis of early childhood bilingualism research published between 2015 and 2025. Drawing on data from the Web of Science Core Collection (WoS-CC), it examines SSCI-indexed, English-language articles to map the intellectual and thematic development of the field. Using tools such as VOSviewer and Bibliometrix R, the study analyzes publication trends, co-authorship networks, co-citation patterns, and keyword co-occurrences. The research focuses on understanding how early bilingualism—the acquisition of two languages before age six—affects cognitive and linguistic development, especially in areas like executive functioning, cognitive flexibility, and language processing. Despite ongoing debates about possible delays in language acquisition, a growing body of literature highlights the cognitive advantages associated with early bilingual exposure. The study anticipates identifying dominant research clusters, including neuroplasticity, cognitive reserve, and bilingual education. It also aims to pinpoint key contributors, institutions, and countries driving this research forward. The findings are expected to show increasing scholarly attention and publication activity in recent years. Ultimately, this analysis offers a comprehensive overview of research trends and gaps, contributing to a deeper understanding of bilingualism's role in early cognitive development and guiding future research and educational strategies.

Keynote Speeches 1

25 November 2025 13:30 - 14:30
Aula Magna
Keynote

Keeping it Human: Cultivating Grit, Curiosity and Connection in Professional Learning for the AI Age

Keywords: Authentic learning, Continuing professional development in Teachers, Emotions and emotional development, Technology Enhanced Learning
Interest group:
Chairperson: Sibel Inci, Turkiye

As AI and digital tools reshape education, the human skills of educators remain more vital than ever. This session explores (inter)personal competencies—empathy, active listening, grit, curiosity, and reflective presence—as essential elements of authentic teaching and learning in the age of innovation. Far from being soft skills, these are core professional capabilities that can be cultivated through intentional, practice-based professional development. Drawing on real-world insights, this session highlights how educators can develop and sustain these human-centred skills to foster connection, resilience, and meaningful engagement in increasingly complex environments. The session invites participants to reflect on how professional learning can strengthen the human edge of education. By placing relational and reflective skills at the heart of innovation, we can ensure that AI supports—rather than replaces—the authenticity that makes education truly transformative.

Keeping it Human: Cultivating Grit, Curiosity and Connection in Professional Learning for the AI Age
Presenting Author: Ariane Dumont, HES-SO, Switzerland

As AI and digital tools reshape education, the human skills of educators remain more vital than ever. This session explores (inter)personal competencies—empathy, active listening, grit, curiosity, and reflective presence—as essential elements of authentic teaching and learning in the age of innovation. Far from being soft skills, these are core professional capabilities that can be cultivated through intentional, practice-based professional development. Drawing on real-world insights, this session highlights how educators can develop and sustain these human-centred skills to foster connection, resilience, and meaningful engagement in increasingly complex environments. The session invites participants to reflect on how professional learning can strengthen the human edge of

education. By placing relational and reflective skills at the heart of innovation, we can ensure that AI supports—rather than replaces—the authenticity that makes education truly transformative.

Keynote Speeches 2

25 November 2025 13:30 - 14:30
Aula Prima
Keynote

Empowerment and Authenticity in the Age of AI: Augmenting Education

Keywords: Authentic learning, Self-regulation and self-regulated learning, Teacher thinking, Technology Enhanced Learning
Interest group:
Chairperson: Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands

In a time of rapid technological advancement, particularly with the rise of generative AI, education must reaffirm its commitment to authenticity. Authenticity in teaching is rooted in trust, context, and relational depth—elements that risk being diminished if technology is adopted uncritically. Preserving authenticity requires a renewed focus on empowerment, not only of learners but, crucially, of educators. Rather than replacing teachers, AI should augment their work—supporting rather than substituting human judgment, empathy, and pedagogical expertise. While AI can streamline routine tasks and offer large-scale insights, current systems remain limited in addressing the relational and contextual dimensions of teaching. Empowered teachers must remain central in interpreting AI outputs and making meaningful decisions in real-time learning contexts.Human-AI collaboration improves outcomes only when interactions are carefully designed. In education, most tasks require shared agency rather than a handover of control. Educators must therefore play an active role in shaping how AI integrates into their classrooms, ensuring these tools amplify—not undermine—their professional values. Authentic learning also depends on students becoming active, reflective participants. AI should serve as a tool for exploration and self-regulation, not simply content delivery. This presentation calls for participatory innovation, where both research and practice centre on augmentation, empowerment, and real-world relevance. In doing so, we can ensure that technological innovation deepens—rather than displaces—what is most human in education.

Empowerment and Authenticity in the Age of AI: Augmenting Education
Presenting Author: Leonard Busuttil, University of Malta, Malta

In a time of rapid technological advancement, particularly with the rise of generative AI, education must reaffirm its commitment to authenticity. Authenticity in teaching is rooted in trust, context, and relational depth—elements that risk being diminished if technology is adopted uncritically. Preserving authenticity requires a renewed focus on empowerment, not only of learners but, crucially, of educators. Rather than replacing teachers, AI should augment their work—supporting rather than substituting human judgment, empathy, and pedagogical expertise. While AI can streamline routine tasks and offer large-scale insights, current systems remain limited in addressing the relational and contextual dimensions of teaching. Empowered teachers must remain central in interpreting AI outputs and making meaningful decisions in real-time learning contexts.Human-AI collaboration improves outcomes only when interactions are carefully designed. In education, most tasks require shared agency rather than a handover of control. Educators must therefore play an active role in shaping how AI integrates into their classrooms, ensuring these tools amplify—not undermine—their professional values. Authentic learning also depends on students becoming active, reflective participants. AI should serve as a tool for exploration and self-regulation, not simply content delivery. This presentation calls for participatory innovation, where both research and practice centre on augmentation, empowerment, and real-world relevance. In doing so, we can ensure that technological innovation deepens—rather than displaces—what is most human in education.

Session C 1

25 November 2025 14:45 - 16:15
Meeting Room 102
Workshop
Higher education

From vision to reality: Campus innovation as a driver for educational transformation

Keywords: Blended learning, Innovations in education, Instructional Design and Instructional Strategies, Technology Enhanced Learning
Interest group:

This workshop explores innovative campus designs that foster effective learning spaces and enhance educational outcomes. Participants will engage in interactive group activities to envision their ideal campus, guided by insights from the 'Future Campus' publication. Using real-life examples of campus innovation in Dutch educational institutions, participants will reflect on how physical and digital spaces can align with modern educational practices. Through peer-learning exercises, collaborative brainstorming, and practical design tasks, participants will gain actionable insights to apply within their institutions. The workshop's aim is to inspire creative thinking in campus development, with a strong focus on educational impact and learning environments that support student engagement and well-being.

From vision to reality: Campus innovation as a driver for educational transformation
Presenting Author: Gerrie van Staalduinen, SURF, Netherlands; **Presenting Author:**Liona de Graaf, SURF, Netherlands; **Co-Author:**Estella Griffioen, SURF, Netherlands; **Co-Author:**Sjieuwke Dankert, SURF, Netherlands

This workshop explores innovative campus designs that foster effective learning spaces and enhance educational outcomes. Participants will engage in interactive group activities to envision their ideal campus, guided by insights from the 'Future Campus' publication. Using real-life examples of campus innovation in Dutch educational institutions, participants will reflect on how physical and digital spaces can align with modern educational practices. Through peer-learning exercises, collaborative brainstorming, and practical design tasks, participants will gain actionable insights to apply within their institutions. The workshop's aim is to inspire creative thinking in campus development, with a strong focus on educational impact and learning environments that support student engagement and well-being.

Session C 2

25 November 2025 14:45 - 16:15
Meeting Room 6
Workshop
Higher education

Authentic professional Identity in Human Services: Experiential and Peer-Based Learning

Keywords: Higher education, Peer Interaction / Learning, Professional identity, Teaching approaches
Interest group: CLOUD 04 - Improving learning and well-being

This workshop presents an innovative pedagogical approach designed to support the professional identity development of students in the helping professions. Rooted in experiential learning principles (Kolb, 1984) and collective peer support dynamics (Turcotte & Lindsay, 2014), the pedagogical approach was implemented with 60 master's students enrolled in a course on professional identity in psychoeducation. Recognizing that university training often places less emphasis on the affective and identity dimensions that are essential to human-centered professions (Bédard et al., 2020; Mukamurera, 2014), this educational method sought to create spaces that foster authentic interactions, personal reflection, and collective support, key elements for maintaining authenticity in education in the age of AI and innovation.Participants will engage in experiential activities modeled on those used with the students, including structured group discussions, reflective creative activities, and mutual aid exercises. The workshop will highlight the interplay between individual pathways and group contributions in building a strong professional identity.Expected learning outcomes include an understanding of how experiential methods can foster authenticity in professional education, practical tools for implementing such methods, and a reflection on the role of collective experiences in supporting individual development. This workshop aligns with practice-based educational research and aims to promote human-centered innovation in education.

Authentic professional Identity in Human Services: Experiential and Peer-Based Learning
Presenting Author:stephanie hovington, Université Laval, Canada

This workshop presents an innovative pedagogical approach designed to support the professional identity development of students in the helping professions. Rooted in experiential learning principles (Kolb, 1984) and collective peer support dynamics (Turcotte & Lindsay, 2014), the pedagogical approach was

implemented with 60 master's students enrolled in a course on professional identity in psychoeducation. Recognizing that university training often places less emphasis on the affective and identity dimensions that are essential to human-centered professions (Bédard et al., 2020; Mukamurera, 2014), this educational method sought to create spaces that foster authentic interactions, personal reflection, and collective support, key elements for maintaining authenticity in education in the age of AI and innovation.Participants will engage in experiential activities modeled on those used with the students, including structured group discussions, reflective creative activities, and mutual aid exercises. The workshop will highlight the interplay between individual pathways and group contributions in building a strong professional identity.Expected learning outcomes include an understanding of how experiential methods can foster authenticity in professional education, practical tools for implementing such methods, and a reflection on the role of collective experiences in supporting individual development. This workshop aligns with practice-based educational research and aims to promote human-centered innovation in education.

Session C 3

25 November 2025 14:45 - 16:15
Meeting Room 101
Workshop
Lifelong learning

Transforming teacher PD: A model for adaptive instructional coaching with AI-assisted insights

Keywords: Artificial intelligence, Continuing professional development in Teachers, Technology Enhanced Learning, Video-based Learning
Interest group: CLOUD 01 - Teacher education

This workshop focuses on a model of adaptive instructional coaching that leverages technology to mitigate the barriers to instructional coaching for improving teachers' instructional practice and enhancing student learning.Instructional coaching has been shown as one of the most effective forms of professional development (PD) due to the personalised, ongoing and collaborative learning it incorporates (Kraft et al., 2018).However, many schools still opt to use one-off training as a method of teacher PD, largely due to the challenges of scaling, cost and implementation. This workshop aims to introduce the LEARN model of adaptive instructional coaching, designed to embed the professional learning into the teaching practice through personalised and iterative cycles of guided reflection, coaching and tracking progress - at scale.The workshop's structure will follow the Education Endowment Foundation's (2021) guide for effective professional development that incorporates: building knowledge, motivating teachers, developing teaching techniques, embedding practice.The attendees will be guided through a structured framework – a Coaching Pathway, to experience the transformative potential of integrating video and AI to reduce the limitations of resources through reducing administrative tasks and providing evidence-informed recommendations to guide teachers' self-reflection, thus empowering them to take control of their PD with coaches' support.

Transforming teacher PD: A model for adaptive instructional coaching with AI-assisted insights
Presenting Author: Vesna Belogaska, IRIS Connect, United Kingdom

This workshop focuses on a model of adaptive instructional coaching that leverages technology to mitigate the barriers to instructional coaching for improving teachers' instructional practice and enhancing student learning.Instructional coaching has been shown as one of the most effective forms of professional development (PD) due to the personalised, ongoing and collaborative learning it incorporates (Kraft et al., 2018).However, many schools still opt to use one-off training as a method of teacher PD, largely due to the challenges of scaling, cost and implementation. This workshop aims to introduce the LEARN model of adaptive instructional coaching, designed to embed the professional learning into the teaching practice through personalised and iterative cycles of guided reflection, coaching and tracking progress - at scale.The workshop's structure will follow the Education Endowment Foundation's (2021) guide for effective professional development that incorporates: building knowledge, motivating teachers, developing teaching techniques, embedding practice.The attendees will be guided through a structured framework – a Coaching Pathway, to experience the transformative potential of integrating video and AI to reduce the limitations of resources through reducing administrative tasks and providing evidence-informed recommendations to guide teachers' self-reflection, thus empowering them to take control of their PD with coaches' support.

Session C 4

25 November 2025 14:45 - 16:15
Meeting Room 3
Present & Discuss
Secondary education, Workplace learning

Present & Discuss: Teachers and Students as Co-Creators of Knowledge

Keywords: Collaborative Learning, Practice-based research (methodology), Professional Development, School development, Secondary school education, Training of young researchers
Interest group: CLOUD 02 - Educators' professional development, CLOUD 11 - Practice-based Research Methodology
Chairperson: Lauren Verheijen, Netherlands

Teacher-researcher partnership: Mutual engagement, agency and shared knowledge co-creation
Keywords: Collaborative Learning, Practice-based research (methodology), Professional Development, School development
Presenting Author: Ulrika Bergmark, Luleå University of Technology, Sweden; **Presenting Author:**Annbritt Palo, Luleå University of Technology, Sweden; **Co-Author:**Maria Löfgren, Umeå University, Sweden; **Co-Author:**Lena Manderstedt, Luleå University of Technology, Sweden

The study's focus is to understand teachers' professional learning and experienced value in action research on literature teaching. Research questions are: How are value created? What are the challenges in the value creation process? How can different forms of value in a social learning space be understood? The study addresses value creation, its challenges and different forms of value in social learning spaces (Wenger-Trayner & Wenger-Trayner, 2020). Data include written reflections and focus group discussions with fifteen Swedish teachers in primary, secondary and upper secondary schools. A reflexive thematic analysis was done, resulting in four themes: *Collaborative engagement of teachers and researchers, Deepening professional and scientific reflection, Practice-informed adaptation of teaching* and *Collective learning and knowledge sharing.* The findings emphasise the power of long-term teacher-researcher collaboration, building on teacher and researcher expertise. Also, the study elucidates not only temporal aspects, but the value of collaboration during the entire action research process. The main conclusions relevant to educational practice are the importance of mutual engagement of teachers and researchers, teacher agency and shared knowledge co-creation.

Gaining Power in a Change Laboratory with Adolescent Students
Keywords: Collaborative Learning, Practice-based research (methodology), School development, Secondary school education
Presenting Author: Pauliina Rantavuori, Tampere University, Finland; **Co-Author:**Annalisa Sannino, Tampere University, Finland; **Co-Author:**Hannele Kerosuo, Tampere University, Finland; **Co-Author:**Yrjö Engeström, University of Helsinki, Finland

This study explores how adolescent students generate and gain power through object-oriented collective activity in a Change Laboratory within schools. Drawing on cultural-historical activity theory, the focus is on the significance of an object for which power is needed. We invited adolescents to create projects which connect their personal interests with the quest for a just and equitable world. Fourteen eighth graders participated in a Change Laboratory (CL) intervention to create projects significant to them. This study focuses on a Documentary Project about bullying and acceptance, created by four students during the CL intervention conducted in school over one academic year. CL sessions took place during regular school hours, allowing students to choose, design, and implement project topics, contents, and means without the constraints of the curriculum and the pressures of testing and grading. The recorded data were transcribed and analyzed using qualitative methods. The findings indicate that gaining power is a complex and longitudinal process shaped by multiple factors. A key insight is the notion of object-oriented power, which is associated with the meaningfulness of the educational experience and fosters significant learning opportunities.

Nurturing Enquiry Spaces for Meaningful 'Students as Researchers'
Keywords: Collaborative Learning, Practice-based research (methodology), Secondary school education, Training of young researchers
Presenting Author: Kate Wall, University of Strathclyde, United Kingdom; **Co-Author:**Rebekah Sims, University of Strathclyde, United Kingdom; **Co-Author:**Amanda Corrigan, University of Strathclyde, United Kingdom; **Co-Author:**Nova Lauder-Scott, University of Strathclyde, United Kingdom; **Co-Author:**Kathryn McCrorie, University of Strathclyde, United Kingdom; **Co-Author:**William Quirke, University of Strathclyde, United Kingdom

This paper engages with our experiences facilitating two Students as Researchers projects in Scottish secondary schools. In optimising young peoples' participatory role, either independently or alongside adults, Students as Researchers recognises students' expertise, and proports to enact meaningful student

decision making through the research process. Yet, as with any practice, the extent to which the young people's role is truly 'as researcher' depends on the contextual enactment of this approach – especially the time and space provided. Using fieldwork diaries and workshop outputs, we discuss what creates quality and what contextual tensions and dilemmas arose throughout the research process. We focus particularly on how school structures, values, and ethos might equally amplify or constrain the process and require adult facilitators to adapt their input.

Session C 5

25 November 2025 14:45 - 16:15
Meeting Room 2
Present & Discuss
Higher education, Vocational education, Workplace learning

Present & Discuss: Challenge-Based Learning, AI, and Teacher Agency in Education

Keywords: Artificial intelligence, Continuing professional development in Teachers, Creativity, Diversity, Higher education, Instructional Design and Instructional Strategies, Learning styles / approaches, Problem Solving, Problem-based learning, Team Learning, Technology Enhanced Learning, Vocational education, Workplace learning
Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 05 - HRD & Workplace learning, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 08 - Diversity & equality in different contexts
Chairperson: Suus Te Braak, Netherlands

GenAI in problem solving: An experimental study in an authentic office simulation
Keywords: Artificial intelligence, Problem Solving, Technology Enhanced Learning, Vocational education
Presenting Author: Chris Mayer, University of Mannheim, Germany; **Co-Author:**Josef Guggemos, University of Education Schwäbisch Gmünd, Germany; **Co-Author:**Andreas Rausch, University of Mannheim, Germany; **Co-Author:**Jürgen Seifried, University of Mannheim, Germany

This study investigates how students engage with GenAI (ChatGPT) when solving authentic, complex problems in a simulated workplace context. It addresses three research questions: (1) Do problem solving skills differ between students that were prompted to follow either a mastery or a performance goal orientation? (2) Are AI related skills, specifically LLM knowledge and computational thinking, associated with specific dimensions of problem solving? (3) How do students collaborate with AI when pursuing different achievement goals? A mixed methods design was used with 53 undergraduate economics and business education students randomly assigned to either a mastery group or a performance goal group. Participants completed a supplier selection task in an office simulation using ChatGPT, supported by a prompting guide. Quantitative data included problem-solving scores; qualitative data included analysis of AI dialogue transcripts. Results showed no significant difference in problem solving performance between groups. Moderate correlations were found between computational thinking and information processing (r = .32) and between LLM knowledge and decision communication (r = .30). Qualitative findings revealed a predominance of performance-oriented prompting, with considerable variability in the use of AI. Implications include incorporating GenAI training into curricula that support mastery-oriented learning with GenAI.

Supporting migrant students in their learning at the interface of vocational schools and workplaces
Keywords: Creativity, Diversity, Vocational education, Workplace learning
Presenting Author: Katarzyna Kärkkäinen, University of Jyväskylä, Finland; **Co-Author:**Krista Loogma, Tallinn University, Estonia

The aim of this paper is to deepen our understanding of vocational teachers' and workplace supervisors' experiences in supporting migrant students' learning at the interface of vocational schools and workplaces in Finland. The study was conducted in the context of a vocational program for practical nurses designed for migrant students. The inductive, thematic analysis showed that both groups of interviewees recognized the importance of efficient integration of learning at school and workplaces, and effective and professional communication and interaction at workplaces. At the same time, both teachers and supervisors reflected on a variety of tools that can be used to enhance the integration of theory and practice as well as communication. In addition, teachers stressed the importance of flexibility in approaching and organizing learning for migrant students in VET. There was an awareness among teachers and supervisors that the implementation of any practices demands a favourable atmosphere at workplaces. Student attitude, openness to learning new things, including new ways of performing certain vocations in Finland, matters too. The results call for more collaboration in and between schools and workplaces in developing more efficient practices for supporting migrant students in their learning at workplaces.

Teachers make the difference! Professional Agency in Dutch teacher teams in vocational education
Keywords: Continuing professional development in Teachers, Team Learning, Vocational education, Workplace learning
Presenting Author: Anne Khaled, HAN University of Applied Sciences, Netherlands; **Presenting Author:**Aimee Hoeve, HAN University of Applied Sciences, Netherlands; **Co-Author:**Haske van Vlokhoven, HAN University of Applied Sciences, Netherlands

Vocational pedagogy is the knowledge and action base for teachers in vocational education (Shulman, 2005). While the concept has been central to ongoing discussions regarding the quality of vocational education, it has yet to be systematically integrated into professional development strategies across the sector. We present findings from ongoing research with Dutch teacher teams in SVET and HVET. The research question of this study is : To what extent do teacher teams experience professional agency in the context of developing vocational pedagogy and what influences this? 10 teams were followed over two years in their professionalization using qualitative and quantitative measures of professional agency (influencing at work, participation at work and negotiating professional identity (Vähäsantanen, et al., 2022)) and what influenced this. We present 10 team portraits based on the model of teacher agency in professional development and school reform by Imants & van der Wal (2019). Cross case analysis shows that differences between teams are substantial and that experiencing professional agency on your actions as a professional is leverage for professionalization. The study provides valuable insights into how teams shape their professional agency and respond to their context, offering actionable feedback through team portraits to support ongoing professionalization.

Exploring the Effects of Challenge-Based Learning on Motivation, Learning Strategies, and Outcomes
Keywords: Higher education, Instructional Design and Instructional Strategies, Learning styles / approaches, Problem-based learning
Presenting Author: Kerstin Helker-Schlotmann, CBS University of Applied Sciences, Germany; **Co-Author:**Jan Vermunt, University of Limassol, Cyprus; **Co-Author:**Isabelle Reymen, Eindhoven University of Technology, Netherlands; **Co-Author:**Miguel Bruns, Eindhoven University of Technology, Netherlands

Challenge-Based Learning (CBL) has gained popularity in higher education, allowing students to take the lead in their own learning through autonomously working on authentic and real-life challenges. Claims are that CBL fosters student motivation, their employment of more beneficial learning strategies, and ultimately their learning outcomes. This study explores these claims by systematically comparing the original and a CBL re-design of an elective technology entrepreneurship course for engineering students. Data were collected at the beginning, in the middle, and at the end of the two versions of the course. Findings reveal significant differences in students perception of the learning environment of the courses and a close interplay of students' employment of learning strategies with aspects of the learning environment and shows CBL students' motivation to be higher at the beginning of the course. Students high in motivation were found to employ beneficial learning strategies more, which calls for teachers' actions.

Session C 6

25 November 2025 14:45 - 16:15
Lecture Room 201
Present & Discuss
Secondary education

Present & Discuss: From Test Introductions to Physically Active Academic Lessons: Insights Into Learning Practices

Keywords: Assessment and evaluation, Authentic learning, Motivation, Research-based learning, Secondary school education, Teaching approaches, Well-being & engagement
Interest group: CLOUD 04 - Improving learning and well-being
Chairperson: Ellen De Bruyne, Belgium

Setting the Stage: An Experimental Study on Test Introductions and Their Effects on Test-Takers
Keywords: Assessment and evaluation, Motivation, Secondary school education, Teaching approaches
Presenting Author: Daphné Van Looy, Ghent University, Belgium; **Co-Author:**Amélie Rogiers, Ghent University, Belgium; **Co-Author:**Carolien Frijns, Ghent University, Belgium; **Co-Author:**Maarten Vansteenkiste, Ghent University, Belgium; **Co-Author:**Johan van Braak, Ghent University, Belgium

Large-scale (inter)national educational assessments provide valuable insights into educational quality, but simultaneously reveal variations in test-taking

motivation and test anxiety among participating students. Test-takers' motivation and anxiety has garnered attention as a significant factor in educational assessment as it is associated with (under)performance. Schools and teachers play a crucial role in the enhancement of test-taking motivation and the reduction of test anxiety, particularly through how they introduce tests. In an experimental study involving 302 ninth-grade students in Flanders, the role of test introductions in students' test anxiety, motivation, and math-test performance is examined. The results show that introducing a particular educational assessment in terms of test-taking climate and stakes impacts test takers' anxiety and motivation. Especially the experience of an autonomy-supportive introduction seems beneficial to buffer against test anxiety and is associated with students' level of motivation, which is conducive given the relationship between test-anxiety, motivational level and performance. Stressing individual test results, on the other hand, may trigger test anxiety. This presentation discusses the implications of the findings, emphasizing the benefits of autonomy-supportive test introductions and the risks of stressing individual test results to foster students' test-taking motivation, reduce their test anxiety and subsequently, enhance their performance.

Effects of Physically Active Academic Lessons (PAAL) in general upper secondary school
Keywords: Authentic learning, Secondary school education, Teaching approaches, Well-being & engagement
Presenting Author: Heidi Syväoja, JAMK University of Applied Sciences, Finland; **Co-Author:**Tuomas Kukko, JAMK University of Applied Sciences, Finland; **Co-Author:**Susanna Takalo, University of Oulu, Finland; **Co-Author:**Nina Salmela, University of Oulu; City of Oulu, Finland; **Co-Author:**Kati Mäkitalo, University of Oulu, Finland; **Co-Author:**Tuija Tammelin, JAMK University of Applied Sciences, Finland

This study aimed to examine the acute effects of physically active academic lessons (PAAL) on students' alertness and situational engagement in general upper secondary school in the age of AI. The effectiveness of PAAL was examined with a cluster-randomized individual crossover trial with volunteered 159 mathematics and foreign language students in general upper secondary school. The students participated in three differently designed lessons in a random order: 1) PAAL with 20 minutes of physical activity integrated into learning goals, 2) PAAL with two 3 minutes physically active breaks (not related to learning goals), and 3) Typical lessons without physical activity (control lesson). Alertness was reported four times and situational engagement once during the lessons by students. Students' alertness increased and situational engagement was higher during both PAAL lessons compared to typical lessons without physical activity. In subject teaching in general upper secondary education, the utilization of physical activity can be recommended to support alertness and engagement.

Subject teachers' experiences with physically active academic lessons in upper secondary school
Keywords: Authentic learning, Secondary school education, Teaching approaches, Well-being & engagement
Presenting Author: Susanna Takalo, University of Oulu, Finland; **Presenting Author:**Heidi Syväoja, JAMK University of Applied Sciences, Finland; **Presenting Author:**Kati Mäkitalo, University of Oulu, Finland; **Co-Author:**Nina Salmela, University of Oulu, Finland, Finland; **Co-Author:**Tuija Tammelin, JAMK University of Applied Sciences, Finland

When physical activity is integrated with the learning of subject content through various pedagogical solutions in academic lessons, it is referred to as physically active learning (PAL). In this study, the aim was to explore how subject teachers experience PAL in authentic teaching situations lessons in general upper secondary school. Fourteen (n=14) subject teachers were interviewed when they had implemented PAL in their teaching for more than an academic year. The semi-structured individual interviews were recorded, transcribed and analyzed using thematic analysis. The results of the study reveal that subject teachers perceived PAL as beneficial for student's well-being and the achievement of the subject's objectives. Subject teachers reported that the physically active classroom practices fulfil their expectations about interaction. Based on their experience, physically active practices promote a comfortable connection between students and between teachers and students. From a practical perspective, the study widens our understanding on how subject teachers can be supported in the use of PAL in general upper secondary school. This study is part of a larger research project funded by the Research Council of Finland.

Students' experiences on physically active academic lessons (PAAL) in general upper secondary school
Keywords: Research-based learning, Secondary school education, Teaching approaches, Well-being & engagement
Presenting Author: Nina Salmela, University of Oulu, Finland, Finland; **Co-Author:**Susanna Takalo, University of Oulu, Finland; **Co-Author:**Heidi Syväoja, JAMK University of Applied Sciences, Finland

How can subject teachers enhance students' overall well-being and sense of belonging to promote their cognitive prerequisites of learning at the same time? Combining physical activity with learning academic subjects seems to be beneficial in several ways for primary and secondary school children based on recent studies. Yet, it is known that specifically young adolescents (from 16 to 19) are spending most of their time in sedentary behaviour, and more evidence-based knowledge is needed what kind of benefits upper secondary school students perceive themselves in having physically active classroom practises in academic subjects. This study focuses on how the interviewed upper secondary school students (n = 30) experience the use of physically active innovative approaches in language and mathematics lessons. Especially in this presentation, the focus is on how upper secondary school students report the situational engagement to their learning. The findings of the study show that physically active tasks increase alertness, concentration, and motivation, but also bring variation, and joy, and improve the interaction and problem-solving skills. Especially the importance of physically active tasks for overall well-being in the AI era challenges subject teachers to reflect on their pedagogical approaches and the school culture.

Session C 7

25 November 2025 14:45 - 16:15
Meeting Room 4
Present & Discuss
Higher education

Present & Discuss: Leadership, Learning Organizations, and Public Engagement in Higher Education

Keywords: 21st century learning, Continuing professional development in Teachers, Educational Policy, Higher education, Inclusivity, Leadership styles, Organisational learning, Philosophy of education, Practice-based research (methodology)
Interest group: CLOUD 02 - Educators' professional development, CLOUD 11 - Practice-based Research Methodology, CLOUD 12 - Leadership in Education
Chairperson: Satoshi Kajitani, Kyoto University, Japan

Building pedagogical learning organisations in Rwanda: Implementing Senge's framework
Keywords: 21st century learning, Continuing professional development in Teachers, Higher education, Organisational learning
Presenting Author: Eila Burns, JAMK University of Applied Sciences, Jyväskylä, Finland; **Co-Author:**Siru Lehto, Jamk, University of Applied Sciences, Finland; **Co-Author:**Delphine Mukingambeho, University of Rwanda, Rwanda; **Co-Author:**Noel Mporananayo, Rwanda Polytechnic, Rwanda

This ongoing study explores the development of two higher education institutions (HEIs) in Rwanda towards becoming pedagogical learning organisations. Both HEIs prioritise digital transformation in their development strategies. The study investigates whether specific training for educators in digital pedagogical skills can help HEIs transform into true learning organisations (Örtenblad, 2020). While enhancing individual educators' digital pedagogical competences is vital, transforming the entire institution into a learning organisation is essential for maintaining educational quality.The study has two main aims. First, it seeks to explore the challenges and opportunities of implementing Senge's (2006) framework in Rwandan HEIs, considering cultural, social, and economic factors. Second, it aims to evaluate the extent to which a training programme has contributed to the development of a learning organization. This practice-based research adopts a qualitative case study methodology, gathering data through observations, interviews, and document analysis.The initial findings suggest that transforming an HEI into a true learning organisation is a lengthy process requiring facilitation and guidance. Key elements in this process include collaborative learning and knowledge sharing across organisational boundaries. The study is conducted within the Higher Education Pedagogies for Teacher Education (HEP-TED) project, funded by the Finnish Ministry for Foreign Affairs.

The Professional Practice of the University President: A Global Study
Keywords: Educational Policy, Higher education, Leadership styles, Organisational learning
Presenting Author: Didi Griffioen, Hogeschool van Amsterdam, Netherlands; **Co-Author:**Huib De Jong, Hogeschool van Amsterdam, Netherlands

Universities play a key role in knowledge societies, yet the professional role of university presidents remains underexplored. This study investigates the personal professionalism of university presidents in positioning their institutions within local, regional, and global knowledge economies. Building on Griffioen's (2019, 2026 exp) framework of personal professionalism, 18 in-depth interviews are conducted with presidents from multiple continents. Preliminary findings from seven interviews reveal wide variations in professional identity, knowledge bases, and actions. These insights provide a holistic view of university leadership practices, moving beyond traditional leadership stereotypes and highlighting the complex, context-driven nature of their role. The study addresses a longstanding gap in higher education research and contributes to understanding the strategic influence of university presidents.

Public Engagement Methods in Higher Education: A Scoping Review
Keywords: Higher education, Inclusivity, Philosophy of education, Practice-based research (methodology)
Presenting Author: Kiran Tomas van den Brande, Aeres Group, Netherlands; **Co-Author:**Frank De Jong, Aeres University of Applied Sciences & Open

University Heerlen, Netherlands

Public Engagement (PE) is crucial in higher education (HE) to foster mutual understanding, contribute to public dialogue and reinforce societal relevance. This study addresses a gap in literature by conducting a comprehensive scoping review of PE methods within HE, particularly beneficial for practice-based research (PBR). PBR is gaining more and more attention with PE, necessitating a more practice based framework with PE. The authors have used Hannah Arendt's political philosophy of the Human Condition as fundament to considering PBR in PE. Guided by this theoretical framework of Hannah Arendt, the review explores the central research question: "What are public engagement methods within higher education through the lens of Hannah Arendt for the benefit of practice-based research?" Employing Arksey and O'Malley's scoping review methodology (2005), the study analyzed 63 empirical studies collected systematically from EBSCO Host, Scopus, Web of Science, and additional manual searches. Findings categorize diverse PE methods through Arendt's principles of Art, Space of Appearance, Power, Promise, and Forgiveness. Results indicate variability across contexts, participants, and methodological designs. This categorization demonstrates Arendt's principles as effective lenses for structuring and enhancing PE activities, thereby contributing meaningfully to educational practices and societal engagement within higher education settings.

Session D 1

25 November 2025 16:45 - 18:15
Aula Magna B
Roundtable
Lifelong learning, Workplace learning

Roundtable: Preventive Care, Emotional Openness, and Learning Challenges in Schools

Keywords: At-risk students, Emotions and emotional development, Equality / Education for All, Inclusivity, Innovations in education, Mentoring, Practice-based research (methodology), Professional Development, Stakeholder partnerships
Interest group: CLOUD 08 - Diversity & equality in different contexts, CLOUD 11 - Practice-based Research Methodology
Chairperson: Sabrina Schmöckel, Paderborn University, Germany

Strengthening school-based care through preventive youth work: Exploring impact and conditions
Keywords: At-risk students, Inclusivity, Practice-based research (methodology), Stakeholder partnerships
Presenting Author: Ayla De Schepper, Karel de Grote Hogeschool, Belgium; **Co-Author:**Kathleen Bodvin, Karel De Grote University College, Belgium; **Co-Author:**Debbie De Neve, Karel De Grote University College, Belgium

Children and adolescents in vulnerable situations often face intertwined challenges at school, at home, and in their broader living environment. Supporting these pupils requires more than just school-based measures—it demands close collaboration between education professionals and youth support services. However, interdisciplinary collaboration in such complex guidance trajectories are frequently hindered by a lack of open discussion or reflection on expectations and the collaboration process itself, combined with structural barriers such as limited time, resources, and differing professional roles and competencies across sectors.This roundtable explores how preventive youth work initiatives in schools, which embed youth care professionals in the school context, can foster more inclusive school environments and improve interprofessional collaboration. These initiatives—often emerging bottom-up—allow youth workers to act as informal process facilitators, aligning the perspectives of pupils, families, teachers, and external partners. Using the CAIMEeR framework for complex interventions, this practice-based research investigates how these youth work practices influence school care policies, how they foster sustainable collaboration, and what contextual factors affect their impact. The findings aim to contribute to a better understanding of how schools and youth care services can co-create proactive, inclusive guidance for pupils with complex needs.

Tracing emotion and uncertainty in professional transformation: are there limits to openness?
Keywords: Emotions and emotional development, Mentoring, Practice-based research (methodology), Professional Development
Presenting Author: Bianca Dusseljee, Firda, Netherlands; **Co-Author:**Menno Wierdsma, Firda, Netherlands; **Co-Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands

This roundtable invites participants to explore emotion and uncertainty in professional development and its guidance. In today's vocational education, learning-working environments are becoming more common. In these settings, educational professionals are asked to guide others through complex, real-world transformations in which the path ahead isn't clear, evoking different emotional responses in both students and professionals. Therefore, these settings call for guidance that is developmental and relational. In this session, we share how we have started to explore emotion not as an object to measure, but as a way to trace the tensions and transformations in professional development. This raises methodological and ethical questions that we are still working on: How can we stay close to lived experience while developing analytical depth? How do we remain open as researchers without overexposing ourselves or the people we work with? Drawing on cultural-historical activity theory (CHAT) and specifically scholars like Engeström, González Rey, Stetsenko, and Sannino, this roundtable invites collective reflection on how we could study emotion in transformation.

Distracted learning - (Pseudo) educational tools in the context of "attention deficit"
Keywords: Equality / Education for All, Inclusivity, Innovations in education, Professional Development
Presenting Author: Michelle Proyer, University of Luxembourg, Luxembourg

Fidget spinners, stress balls and other (pseudo) educational tools have been introduced to classrooms to deal with aberrating behaviours, re-focus attention of students or bridge its deficits. Other tools (such as cell phones) are banned in many country-contexts although these would supposedly enable varied learning environments. Based on a critical literature review, this planned project is aimed at understanding perceptions and strategies of teachers in order to deal with supposedly increasing issues with attention in students with and without diagnoses. This is to add to a more critical perspective on the issue of deficit-dominated discourses in (digital) inclusive education and identify needs of (further) teacher training.

Session D 2

25 November 2025 16:45 - 18:15
Aula Magna D
Roundtable
Higher education, Secondary education

Roundtable: From Myths to Encouragement: AI's Role in Teacher Thinking and Approaches

Keywords: Artificial intelligence, Authentic learning, Mathematics Education, STEM, Teacher thinking, Teaching approaches, Training and Development
Interest group: CLOUD 01 - Teacher education, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Eila Burns, Finland

Sciences and AI between Disdain and Myth: Toward a More Authentic STEAM Education
Keywords: Artificial intelligence, Authentic learning, STEM, Teacher thinking
Presenting Author: Alfred Steinbach, University of Teacher Education St.Gallen (PHSG), Institute of Mathematics, Science and Technology Education, Switzerland; **Co-Author:**Claudia Buser, St.Gallen University of Teacher Education (PHSG), Switzerland

This roundtable session examines the polarized views of science and artificial intelligence (AI) and their influence on education and public perception. Scientific disciplines and their results are often caught between rejection and recognition, between contempt and idealization [1]. On the one hand, anthropogenic climate change and COVID-19 deniers, conspiracy theorists and purveyors of alternative facts reject scientific consensus and fuel distrust. On the other hand, scientists, communicators and activists strive to defend science – often presenting an idealized science image that praises a monolithic truth.

These tensions also permeate schools and universities, probably shaping STEAM education. The authors increasingly encounter a distorted understanding of science – less outright rejection but more unrealistic expectations of what science is and can achieve.

For establishing an authentic science education, we want to uncover these distortions in our university using questionnaires that are designed around a selection of statements we will open up for dialogue in this roundtable session. Main research questions are:
• How many biases and beliefs about science exist among science educators and students?
• How can vibrating STEAM education effectively address and counteract these distortions?

We will critically scrutinize several statements in the light of real-world connectedness as well as disciplinary and personal authenticity [2].

CLIMBing with AI: Exploring Authentic Teacher Learning in Multiple-Perspective-Taking
Keywords: Artificial intelligence, Authentic learning, Teacher thinking, Training and Development
Presenting Author: Astrid Ottenheym - Vliegen, Radboud University, Netherlands

This roundtable explores how multiple-perspective-taking (MPT) can enhance authentic teaching in complex classroom settings, and how AI might support this learning process without diminishing its relational core. In a previous EAPRIL presentation, we shared findings from an NRO-funded PhD study in primary education. It showed that MPT helps broaden teachers' interpretive frameworks and strengthens their ability to respond constructively to student behavior.This study developed and tested the blended learning trajectory CLIMB (Collaborative Learning in Multiple-Perspective-Taking Building). CLIMB strengthens teachers' interpretive awareness, self-efficacy, and responsive attitudes. However, transferring this into written reflections and student reports remains a challenge.A follow-up study in secondary education seeks to explore how AI can support teacher learning and track changes in MPT. The project investigates how conversational agents, feedback on attribution patterns, and sentiment or complexity analysis can assist reflection and interpretation.Participants are invited to explore critically: How can AI support developing and assessing MPT as an authentic professional competence? What are ethically sound uses of AI in teacher learning? How do we safeguard authenticity when AI is involved? The roundtable invites dialogue on how to keep teacher learning real, relational, and reflective in AI-enriched contexts.

Can AI Offer Genuine Encouragement? An MI Chatbot for Mathematics Learners
Keywords: Artificial intelligence, Authentic learning, Mathematics Education, Teaching approaches
Presenting Author: Hafsteinn Einarsson, University of Iceland, Iceland; **Co-Author:**Birta Brynjarsdóttir, University of Iceland, Iceland; **Co-Author:**Bjarnheiður Kristinsdóttir, University of Iceland, Iceland; **Co-Author:**Anna Helga Jónsdóttir, University of Iceland, Iceland; **Co-Author:**Fjola Helgadottir, Indepedendent Researcher, United States; **Co-Author:**Farzaneh Saadati, University of Chile, Chile; **Co-Author:**Brynjar Halldórsson, Reykjavík University, Iceland; **Co-Author:**Sigrún Helga Lund, University of Iceland School of Engineering and Physical Sciences, Iceland

This roundtable session introduces an ongoing project exploring how artificial intelligence, specifically an AI-driven chatbot employing motivational interviewing (MI), can foster genuine engagement and enhance university students' motivation in mathematics. As AI increasingly shapes educational landscapes, ensuring technology serves to augment authentic learning experiences is paramount. The potential of AI to support well-being and motivation has been substantially demonstrated. Foundational research with early conversational agents, and more recent pivotal studies with Large Language Model (LLM)-based chatbots, have shown clinically significant impacts on mental health (e.g., Heinz et al., 2025) and even the ability to influence beliefs through personalized dialogue (Costello et al., 2024). Our research builds on this evidence, aiming to leverage these technological advancements to deliver personalized, human-centered motivational support. A double-blinded, randomized controlled trial will assess whether our MI-chatbot can improve students' intrinsic motivation, self-efficacy, and engagement in mathematics. This project addresses a significant gap in practice-based educational research, offering potential innovations for enhancing student motivation and outcomes, and seeks discussion on responsibly integrating such tools to preserve the integrity of educational experiences.

Session D 3

25 November 2025 16:45 - 18:15
Aula Magna A
Roundtable
Higher education, Secondary education

Roundtable: Supporting Young People's Agency and Resilience in AI-Mediated Learning

Keywords: 21st century learning, Artificial intelligence, Culture and Education, Higher education, Innovations in education, Primary school education, Secondary school education
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Jan Grannäs, University of Gävle, Sweden

Understanding Young Voices in a Digital Age
Keywords: 21st century learning, Artificial intelligence, Culture and Education, Primary school education
Presenting Author: Natasha Ikhlaq, Birmingham City University, United Kingdom

As artificial intelligence (AI) increasingly shapes society, understanding how primary school-aged children (PSC) perceive and engage with it is essential for developing relevant educational strategies. This study explores PSC's perceptions, experiences, and visions of AI—both now and in the future- using a mixed-methods approach. The central research questions address how PSC conceptualise AI, their attitudes towards its societal implications, and their concerns about its role in education and everyday life.A mixed-methods design will combine quantitative online surveys (Likert-scale) with qualitative focus groups incorporating creative activities. A representative sample of PSC from diverse socio-economic and cultural backgrounds will be engaged. Qualitative data will be analysed using thematic analysis to identify recurring themes, while quantitative data will be examined using descriptive and inferential statistics to uncover trends and group differences. This research fills a gap in the literature by focusing on PSCS's voices and diverse experiences. It aims to inform AI education and development that are responsive to children's needs, values, and ethical concerns, contributing to the promotion of AI literacy and empowering children to participate meaningfully in shaping an inclusive, ethical AI future.

Building children's human-centred AI resilience
Keywords: 21st century learning, Artificial intelligence, Primary school education, Secondary school education
Presenting Author: Kati Mäkitalo, University of Oulu, Finland; **Co-Author:**Megumi Iwata, University of Oulu, Finland

A growing presence of AI technologies in children's lives causes various challenges including threats, insecurity, and over dependence. To overcome these challenges, children should have resilience towards AI technologies. However, less is known about individual-level AI resilience and the effective ways to empower students with human-centred perspectives towards AI technologies. This research project increases the understanding of children's AI resilience behaviours. Classroom interventions in primary and lower secondary schools are conducted to collect data about learners' experiences of using AI tools in co-design creative projects. We examine how AI resilience is related to skills involved in learning, such as creative design, problem solving and collaboration skills. We develop a conceptual model of human-centred AI resilience of children and provide evidence-based recommendations to foster AI resilience behaviours in authentic classroom settings. By promoting AI resilience, children's ability to take control over their own behaviour towards AI technologies is advanced and their well-being is increased. This project provides essential evidence-based recommendations for AI-related learning activities to support teachers and teacher educators to adapt new pedagogical models and designs to enhance human-centred AI resilience behaviours, learning and well-being of students in comprehensive schools.

PIXIE – An AI-assistant helps students with questions about teaching material
Keywords: 21st century learning, Artificial intelligence, Higher education, Innovations in education
Presenting Author: Hermien Raedts, University College PXL, Belgium

This practice-based research investigates the development and deployment of a digital AI assistant in the context of physical retail stores, building upon earlier research projects at PXL University College: the "Central Business Assistant" project (TransformAI, completed) and the ongoing Tetra-funded "AI Assistant for Retail" project (2024–2026). Central research questions include: What defines a digital AI assistant? How does it differ from traditional chatbots? What are Large Language Models (LLMs) and how do they revolutionize natural language processing? How can a digital AI assistant facilitate product selection processes in physical retail environments? What are critical do's and don'ts in the implementation of such systems?The research design follows a descriptive approach, combining qualitative and quantitative methodologies. Instruments include interviews, co-creation sessions, living labs, surveys, MOOCs, and checklists. Data will be analyzed using tools such as Qualtrics, Microsoft Excel, and Python. The research aims to bridge the knowledge gap regarding AI deployment in Flemish retail SMEs, enhance the customer experience, and reduce employee workload. A modular framework ('Pixie') will be developed to ensure flexible, scalable integration across domains. This project contributes to educational innovation by improving tools that reduce redundant teacher-student interactions and by developing two MOOCs to disseminate the findings.

Session D 4

25 November 2025 16:45 - 18:15
Meeting Room 103

Workshop
Higher education

Student Agency Challenge: Developing a game to foster student agency

Keywords: Game-based learning / Gamification, Innovations in education, Self-regulation and self-regulated learning, Vocational education
Interest group: CLOUD 04 - Improving learning and well-being

Middle and higher vocational education aims to prepare students for lifelong learning and complex issues through innovative and flexible education. However, teachers observe that many students struggle with agency, which hinders their optimal functioning in innovative and flexible learning environments. Unfortunately, tools for developing student agency are not yet sufficiently available. Therefore, the serious game Student Agency Challenge was developed, based on a predecessor game for professional agency. A consortium of five secondary and higher education institutions was formed to develop this serious game to support student agency. Design principles were identified from the literature and from experts. These design principles were aligned with students' real-life experiences and given appropriate language in development sessions. Then, the gameplay of the challenge was developed and refined in multiple gaming sessions. The Challenge supports students in identifying specific aspects of their life that require agency, determining which aspects are needed, and choosing and developing strategies to strengthen their agency in that situation. During this workshop, participants will experience working with the Student Agency Challenge and reflect on its potential for supporting student agency in their own professional contexts. The game is freely available and is suitable for a variety of educational settings.

Student Agency Challenge: Developing a game to foster student agency
Presenting Author: Harry Stokhof, HAN University of Applied Sciences, Netherlands; **Co-Author:**Kyle van den Langenberg, HAN University Nijmegen, Netherlands; **Co-Author:**Helma Oolbekkink-Marchand, Hogeschool van Arnhem en Nijmegen (HAN), Netherlands; **Co-Author:**Jeroen van der Linden, HAN University of Applied Sciences, Netherlands

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Session D 5

25 November 2025 16:45 - 18:15
Meeting Room 5
Workshop
Vocational education

Student learning teams: which practical issues are appropriate?

Keywords: Authentic learning, Educational Effectiveness and quality of education, Higher education, Vocational education
Interest group: CLOUD 04 - Improving learning and well-being

To prepare vocational and university students for their future profession, it is important that they learn to work and cooperate in practice. One way they do this is by means of practical issues. However, the assignments students are given are not always optimal for helping students learn. If the issue (assignment) is too complex, students become too dependent of guidance and become demotivated. Besides, the innovative returns are of low quality. If the issue is too easy students do not learn innovative skills. During the workshop, participants will work with the Complextool. This tool we have developed, based on literature and NLQF-levels, helps educators to fine-tune issues at the needs and skills of their students and evaluate issues as well as the process of collaboration. The tool focuses on the complexity of the issue and on the collaboration. Based on a practical assignment, delegates will explore and apply the tool in groups.

Student learning teams: which practical issues are appropriate?
Presenting Author: Petra Poelmans, Scalda, Netherlands; **Co-Author:**Anje Ros, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Elke Prumpeler-Heijligers, ROC Gilde, Netherlands; **Co-Author:**Suzanne Raaijmakers, Fontys Hogeschool Kind & Educatie, Netherlands; **Co-Author:**Henderijn Heldens, Zuyd University of Applied Sciences, Netherlands

To prepare vocational and university students for their future profession, it is important that they learn to work and cooperate in practice. One way they do this is by means of practical issues. However, the assignments students are given are not always optimal for helping students learn. If the issue (assignment) is too complex, students become too dependent of guidance and become demotivated. Besides, the innovative returns are of low quality. If the issue is too easy students do not learn innovative skills. During the workshop, participants will work with the Complextool. This tool we have developed, based on literature and NLQF-levels, helps educators to fine-tune issues at the needs and skills of their students and evaluate issues as well as the process of collaboration. The tool focuses on the complexity of the issue and on the collaboration. Based on a practical assignment, delegates will explore and apply the tool in groups.

Session D 6

25 November 2025 16:45 - 18:15
Meeting Room 6
Workshop
Primary education

Beyond the Screen: Merging Digital Tools with Real-World Inquiry.

Keywords: 21st century learning, Innovations in education, Practice-based research (methodology), STEM
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

In this hands-on workshop, participants will explore the ORBIUM learning kit—an outcome of a rigorous research-and-development process at the Copernicus Science Centre—and discover how readily available mobile apps can turn tablets and smartphones into scientific instruments. In small teams, attendees will use light-sensor apps to measure ultraviolet transmission through sunglasses and sunscreen samples, analyze ambient sound intensity and frequency with sound-analyzer tools, and identify local insects, plants, and birds via AI-powered image-recognition platforms. Each activity leverages insights and best practices from the R&D phase that produced ORBIUM, ensuring pedagogical robustness and practical feasibility. We will conclude with a collaborative discussion on co-designing inclusive, engaging educational solutions—eliciting concrete recommendations based on participants' experiences and the lessons learned during ORBIUM's development.

Beyond the Screen: Merging Digital Tools with Real-World Inquiry.
Presenting Author: Kamil Wachol, Copernicus Science Centre, Poland

In this hands-on workshop, participants will explore the ORBIUM learning kit—an outcome of a rigorous research-and-development process at the Copernicus Science Centre—and discover how readily available mobile apps can turn tablets and smartphones into scientific instruments. In small teams, attendees will use light-sensor apps to measure ultraviolet transmission through sunglasses and sunscreen samples, analyze ambient sound intensity and frequency with sound-analyzer tools, and identify local insects, plants, and birds via AI-powered image-recognition platforms. Each activity leverages insights and best practices from the R&D phase that produced ORBIUM, ensuring pedagogical robustness and practical feasibility. We will conclude with a collaborative discussion on co-designing inclusive, engaging educational solutions—eliciting concrete recommendations based on participants' experiences and the lessons learned during ORBIUM's development.

Session D 7

25 November 2025 16:45 - 18:15
Meeting Room 101

Workshop
Secondary education

Physically active classroom practices in general upper secondary school

Keywords: Research-based learning, Secondary school education, Teaching approaches, Well-being & engagement
Interest group: CLOUD 04 - Improving learning and well-being

Do students really need to be sat down to learn? Previous research shows that the integration of physical activity into teaching is beneficial for students' health and academic performance. Physically active tasks promote attention, improve concentration, and foster engagement with learning (Reynolds, 2022; Gilmore et al., 2024). The primary aim of the workshop is to give hands-on experiences how physical activity is added into academic lessons in upper secondary level. The workshop shows evidence-based physically active classroom practice and the physical activity breaks that were utilized in the study entitled Physically active academic lessons in secondary level. Additionally, in this interactive workshop participants will take part in several concrete examples of physically active classroom practices for foreign language lessons, such as the bucket race. An interactive method known as *a hot potato in a hat* will be used with conversation of participants' innovative practices and experiences in a field of physically active learning.

Physically active classroom practices in general upper secondary school
Presenting Author: Nina Salmela, University of Oulu, Finland, Finland; **Presenting Author:**Susanna Takalo, University of Oulu, Finland; **Co-Author:**Heidi Syväoja, JAMK University of Applied Sciences, Finland

Do students really need to be sat down to learn? Previous research shows that the integration of physical activity into teaching is beneficial for students' health and academic performance. Physically active tasks promote attention, improve concentration, and foster engagement with learning (Reynolds, 2022; Gilmore et al., 2024). The primary aim of the workshop is to give hands-on experiences how physical activity is added into academic lessons in upper secondary level. The workshop shows evidence-based physically active classroom practice and the physical activity breaks that were utilized in the study entitled Physically active academic lessons in secondary level. Additionally, in this interactive workshop participants will take part in several concrete examples of physically active classroom practices for foreign language lessons, such as the bucket race. An interactive method known as *a hot potato in a hat* will be used with conversation of participants' innovative practices and experiences in a field of physically active learning.

Session D 8

25 November 2025 16:45 - 18:15
Meeting Room 102
Workshop
Vocational education

Increasing Research Impact through Strategic Knowledge Utilization

Keywords: Professional Development, Research-based learning, Training and Development, Vocational education
Interest group: CLOUD 02 - Educators' professional development

How can you ensure that your research truly makes a difference in educational practice? This interactive workshop equips practitioner researchers from all educational sectors with practical tools and strategies to increase the impact of their work. Based on a dynamic model of knowledge utilization, participants will explore how different strategies - ranging from knowledge transfer to co-creation - can help bridge the gap between research and educational practice.Through case-based reflection, peer dialogue, and strategic planning, participants will analyze their own research products and develop a tailored impact plan to engage stakeholders, foster meaningful use, and monitor outcomes. The workshop is rooted in applied research conducted in Dutch vocational education, but the tools and insights are relevant to all who aim to enhance the uptake and value of educational research.

Increasing Research Impact through Strategic Knowledge Utilization
Presenting Author: Patricia Brouwer, Hogeschool Utrecht Lectoraat Werken in Onderwijs, Netherlands; **Presenting Author:**Carlos van Kan, Rotterdam University of Applied Sciences, Netherlands; **Co-Author:**Janneke Van Der Steen, HAN University of Applied Sciences, Netherlands

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Session D 9

25 November 2025 16:45 - 18:15
Aula Magna C
Roundtable
Higher education, Secondary education, Workplace learning

Roundtable: Exploring Culture, Collaboration, and Innovation in Schools

Keywords: Collaborative Learning, Educational Policy, Higher education, Innovations in education, Organisational learning, Practice-based research (methodology), Secondary school education, Social interaction, Work environments
Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 05 - HRD & Workplace learning
Chairperson: Chris Mayer, University of Mannheim, Germany

From Innovation Islands towards Mainland: Secrets of award-winning educational innovations.
Keywords: Higher education, Innovations in education, Organisational learning, Practice-based research (methodology)
Presenting Author: Remco Coppoolse, Utrecht University of applied science, Netherlands; **Co-Author:**Miriam Cents-Boonstra, Saxion University of Aplied Sciences, Netherlands; **Co-Author:**Lydia Schaap, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Elise Eshuis, Saxion University of Applied Sciences, Netherlands

While the necessity of educational innovation in rapidly changing environment is undisputed, long-term integration of innovations within educational institutions remains challenging. The aim of this study (Funded by National Educational Research Organization) is to gain insights into how local educational innovations can become embedded within educational institutions. Based on these insights, the Innovation Sustainability Framework (ISF) will be developed, including tools that make insights on sustaining educational innovations applicable.To achieve this, we employ learning history case studies of five award-winning educational innovations recognized by the Dutch Higher Education Award. This joint research leads to insights and findings from cross-case analysis within a Learning History Lab. Through these case studies and the lab, we aim to develop insights into patterns of educational innovation, identify the effective principles of sustainable educational innovations, create practical tools for educational practice, and make the knowledge and findings widely accessible. The expected outcomes of this research include the identification of effective principles in sustainable educational innovations, foster mutual learning among education professionals throughout the research process, involve co-creation in developing practical tools that embody and support the implementation of these principles, and ultimately, the enhancement of the sustainability of educational innovations in higher education.

Collaborative and Organizational Learning in the Pilot 'Teaching Time' at a Comprehensive School
Keywords: Collaborative Learning, Innovations in education, Organisational learning, Secondary school education
Presenting Author: Karin van de Lagemaat, Amsterdam University of Applied Sciences (AUAS), Netherlands; **Co-Author:**Sarah Plickert, Montessori Lyceum Oostpoort, Netherlands; **Co-Author:**Bart Steur, Montessori Lyceum Oostpoort, Netherlands

What happens when a teaching team is given the opportunity to reduce classroom hours in order to create more time for educational development?
The Dutch pilot 'Onderwijstijd' (Teaching Time/TT) offers this opportunity: fewer teaching hours for both teachers and students, and more time to collaboratively design education.Within the framework of a Professional Doctorate (PD) research project on Collaborative and Organizational Learning (C&OL), conducted at a comprehensive school in Amsterdam in cooperation with a national educational consultancy, this study makes visible how teacher teams engage in collaborative learning processes.Research QuestionsHow does C&OL take shape within the pilot, and which interventions contribute to strengthening this process?What social processes influence team collaboration, and what are the practical implications for fostering connection?How do team members relate to

C&OL, and what language do they use to describe the process? Design & Methodology A practice-based, interventional case study. Qualitative data are analysed and developed into case narratives, interpreted through theoretical lenses. These perspectives provide insight into the complexity of C&OL and form the basis for evidence-informed interventions that contribute to C&OL.

School Culture Reflection
Keywords: Educational Policy, Organisational learning, Social interaction, Work environments
Presenting Author: Kurt Lecompte, Open Universiteit - Heerlen, Belgium; **Co-Author:**Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands; **Co-Author:**Stefan Robbers, Open University Netherlands, Netherlands; **Co-Author:**rob martens, Open University of the Netherlands, Netherlands

A global shortage in education makes teacher retention a big concern, not least for school leaders. Therefore, ensuring the engagement and retention of the teachers on board is essential. But teacher retention is a complex phenomenon with different approaches as found in the literature and experienced in practice. One perspective discusses the influence of teachers' individual characteristics and attitudes. Another perspective addresses school organizational factors. From the last perspective, school culture is one of the organizational factors to be examined. Nevertheless, school culture is a very complex concept and is often confused with or related to terms such as school climate, school code, or ethos (Cohen, McCabe, Michelli, & Pickeral, 2009; Hoy, 1990; Schoen & Teddlie, 2008; Van Houtte, 2005). The central question in the present study is: What concepts does school culture comprise? Reflections on this question from practice and literature resources should provide a more profound and better understanding of school culture and its importance for teacher retention. In this roundtable session, we explore the concept of school culture from both theoretical and practical perspectives by mirror-wise brainstorming, reflecting so that both perspectives can reinforce each other.

Session D 10

25 November 2025 16:45 - 18:15
Meeting Room 3
Workshop
Lifelong learning

From Inside Out: Authentic Work on Diversity and Inclusion

Keywords: Diversity, Equality / Education for All, Gender Issues, Inclusivity
Interest group: CLOUD 08 - Diversity & equality in different contexts

This 90 minute workshop is grounded in the belief that working authentically from your core values is essential for building inclusive educational environments. By starting from the self, your experiences, identity, and worldview, we explore how personal authenticity can become a powerful tool for transformation in education. The session invites participants to reflect on what truly matters to them, and how they can connect this with their professional roles as educators or education professionals. Through both theory and hands-on methods, we guide participants in translating their authenticity into inclusive practices that support students and colleagues across intersectional lines. This workshop is designed for the educator that also wants to be educated to do better.

From Inside Out: Authentic Work on Diversity and Inclusion
Presenting Author: Suus Te Braak, HizzFit, Netherlands; **Presenting Author:**Nick Gee, EAPRIL Chair, Birmingham City University, United Kingdom

This 90 minute workshop is grounded in the belief that working authentically from your core values is essential for building inclusive educational environments. By starting from the self, your experiences, identity, and worldview, we explore how personal authenticity can become a powerful tool for transformation in education. The session invites participants to reflect on what truly matters to them, and how they can connect this with their professional roles as educators or education professionals. Through both theory and hands-on methods, we guide participants in translating their authenticity into inclusive practices that support students and colleagues across intersectional lines. This workshop is designed for the educator that also wants to be educated to do better.

Session D 11

25 November 2025 16:45 - 18:15
Meeting Room 2
Present & Discuss
Early childhood education

Present & Discuss: Technology, Mentorship, and Child Development in the Age of AI

Keywords: Artificial intelligence, Assessment and evaluation, Early childhood education, Higher education, In-service Teacher Training, Initial Teacher Education (Pre-service), Innovations in education, Mentoring, Pre-school education / kindergarten, Vocational education, Workplace learning
Interest group: CLOUD 02 - Educators' professional development, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Peter Steiner, University of Teacher Education St.Gallen, Switzerland

Using Generative AI with Children in Early Childhood Education
Keywords: Artificial intelligence, Early childhood education, Initial Teacher Education (Pre-service), Pre-school education / kindergarten
Presenting Author: Maria Dardanou, University of Tromsoe, Norway; **Co-Author:**Marianne Larsen, University of Stavanger, Norway; **Co-Author:**Torstein Unstad, University of Tromsoe, Norway

The integration of digital technology and artificial intelligence (AI) in education has had an impact on early childhood education and care (ECEC). Using generative AI (GAI) with children in ECEC offers both opportunities and challenges. It is therefore important for teachers to develop digital competence to guide children in using technology creatively and critically. Ethical considerations, such as algorithmic bias and data privacy, are crucial when using AI in education. This qualitative interview study explores seven Norwegian early childhood pre-service and in-service teachers' perspectives on using GAI with children in ECEC, aiming to understand the possibilities and challenges they face. The analysis shows that the participants are both positive and critical towards using GAI with children in ECEC. The study highlights how the participants have used GAI in ECEC, and their reflections of their practices. The conclusion emphasizes the need for ECEC teachers to explore, reflect, and develop digital competence to use GAI creatively and critically, ensuring a balanced approach that fosters children's digital resilience.

AI in Technology-Enhanced Toys within early childhood education: a polycrisis perspective
Keywords: Artificial intelligence, Early childhood education, In-service Teacher Training, Initial Teacher Education (Pre-service)
Presenting Author: Anastasia Misirli, University of Patras, Greece; **Co-Author:**Maria Dardanou, University of Tromsoe, Norway; **Co-Author:**Maria Hatzigianni, University of West Attica, Greece; **Co-Author:**Vassilis Komis, University of Patras, Greece

This study explores the evolving nature of play in Early Childhood Education and Care (ECEC) in the context of Artificial Intelligence (AI) integration. While play remains a foundational element of ECEC, the rise of Technology-Enhanced Toys (TETs) with AI features introduces new complexities in the relationship between play and learning, which has been underexplored in research. Using a mixed-methods approach following PRISMA guidelines, the study systematically reviewed 678 toys on Amazon, identifying 21 with AI or Machine Learning characteristics. Thematic analysis revealed key themes including technological affordances, educational promises, and critical ethical concerns such as privacy, algorithmic bias, equity, and inclusion. Despite manufacturers' claims, the educational value of these toys requires further empirical validation. The study underscores the importance of addressing the interconnected ethical, social, and systemic challenges — or polycrisis — posed by AI in education. It calls for more robust research and ethical frameworks to ensure AI-enhanced toys support all children equitably and responsibly.

Students create course materials with ChatGPT to improve their knowledge and awareness
Keywords: Artificial intelligence, Assessment and evaluation, Higher education, Innovations in education
Presenting Author: Hedia Mhiri Sellami, Institut Superieur de Gestion de Tunis, Tunisia

This article describes an experiment where students generate two different course materials for the same chapter with and without ChatGPT. Our experiment aimed to increase students' awareness of ChatGPT and discuss how it impacts their learning. The experiment involved fifty students enrolled in the second year of the "Business Information System" (BIS) license program at the High Institute of Management of XXX. This article addresses the application of generative artificial intelligence in education based on some actual classroom use cases at various levels. Our experiment is then introduced, and the questionnaire that students filled in to provide their comments and suggestions. Although students claimed to have used ChatGPT in their studies or elsewhere, our experiment strengthened their critical analysis of its results. It was confirmed by the students that ChatGPT helped them learn more quickly and efficiently, but they also

reported some misdeeds. Along with appreciating the originality and effectiveness of the experiment, the students stressed that ChatGPT is only a tool that facilitates learning without replacing the teacher. This article discusses possible adaptations of this experiment to other environments, including our recommendations and students' suggestions.

Improving mentoring practices in childcare: Towards everyday actions with daycare professionals
Keywords: Early childhood education, Mentoring, Vocational education, Workplace learning
Presenting Author: Nikolett Szelei, Karel de Grote University of Applied Sciences and Arts, Belgium; **Presenting Author:**Jeroen Janssen, Karel de Grote University of Applied Sciences and Arts, Belgium; **Presenting Author:**Kris De Visscher, Karel De Grote University College, Belgium; **Co-Author:**Marie Van Roost, Karel de Grote University of Applied Sciences and Arts, Belgium; **Co-Author:**Hannelore Binst, Karel de Grote University of Applied Sciences and Arts, Belgium

A current tendency in Flemish childcare services is to recruit preservice childcare professionals who are yet to complete their qualifications. Inservice childcare staff is consequently expected to take up mentoring roles to support workplace learning. Being a mentor on top of their busy schedules may, however, be challenging. Therefore, we initiated an action research project in four daycare centres. In this presentation, we unpack the research question: How did we arrive to the identification of actions to improve everyday mentoring practices? Data consists of (1) focus group discussions in which team members explored the challenges and opportunities of workplace learning, (2) participant observations, (3) a questionnaire, (4) a focus group discussion in which the teams defined concrete actions to be tried out, reflected upon and finetuned, (5) researchers' memos. As preliminary analysis, we conducted a qualitative description per site, then compared findings across sites. Preliminary results show an imperfect yet persistent journey towards everyday actions. Our findings provide illustrations for practice-based research particularly in busy ECEC contexts, and the unique methodological challenges and opportunities that arise in these settings. Based on lessons learnt in this project, we hope researchers and practitioners will further improve their own projects.

Session E 1

26 November 2025 09:00 - 10:30
Meeting Room 4
Present & Discuss
Primary education

Present & Discuss: Differentiation and Skill Development in Primary Education

Keywords: Assessment and evaluation, At-risk students, Beliefs and conceptions of learning, Diversity, Educational Effectiveness and quality of education, Equality / Education for All, Mathematics Education, Primary school education, Problem Solving, Sustainability, Teacher thinking, Technology Enhanced Learning, Writing
Interest group: CLOUD 01 - Teacher education, CLOUD 08 - Diversity & equality in different contexts
Chairperson: Sigrún Helga Lund, Iceland

Pedagogical-didactic reasoning of primary school teachers regarding differentiation
Keywords: Beliefs and conceptions of learning, Diversity, Primary school education, Teacher thinking
Presenting Author: Mirjam Heemskerk - van der Sprong, The Hague University of Applied Sciences, Netherlands

Providing education that aligns with students' individual needs is key to promoting their learning. This qualitative study explores how teachers at primary schools with varying school weights differ in their pedagogical-didactic reasoning regarding differentiation. Differentiation—adapting teaching to diverse student needs—is known to be challenging, particularly at schools with a high proportion of students at risk of educational disadvantage. To better support (future) teachers in these contexts, insight into their reasoning is essential. Semi-structured interviews were conducted with 48 teachers from 10 primary schools in the Haaglanden region, varying in school weight. Thematic analysis revealed that teachers at low school weight schools tend to base their differentiation on students' cognitive traits and learning approaches. In contrast, teachers at high school weight schools more often refer to students' background characteristics, such as home environment and behavior, and emphasize the skills required to effectively manage diversity. These findings suggest that while differentiation practices are shaped by teachers' pedagogical-didactic visions, school context influences their reasoning. Understanding these differences can help inform targeted professional development, ultimately contributing to more equitable education.

Crossing the finish line together: Convergent differentiation in primary education
Keywords: At-risk students, Educational Effectiveness and quality of education, Equality / Education for All, Primary school education
Presenting Author: Milou de Smet, Thomas More Mechelen, Belgium; **Co-Author:**Maxime Bultheel, Thomas More Mechelen, Belgium; **Co-Author:**Pieter Verachtert, Thomas More Mechelen, Belgium

How can teachers in primary education organize their education to ensure that all students achieve the minimum goals, aiming to address and reduce educational disparities? Based on recent, robust literature and under the advice of an expert- and user committee, we provide a concrete and nuanced answer to this very complex question. The starting point is that teachers keep the same challenging goals in mind for all students. The ambition 'We start and finish together, no one is left behind!' is therefore central. In this session we formulate seven evidence-informed didactical recommendations for implementing convergent differentiation, illustrated with concrete examples and practical tips.

Writing Through the Grades: A Longitudinal Study of Handwriting Growth and Predictive Indicators
Keywords: Assessment and evaluation, Primary school education, Technology Enhanced Learning, Writing
Presenting Author: Irune Ibarra, University of the Basque Country, Spain; **Co-Author:**Izaskun Ibabe, University of the Basque Country, Spain; **Co-Author:**Mikel Iruskieta, University of the Basque Country, Spain

This study aims to examine the development of handwriting from 2nd to 4th grade in primary education and to identify early predictors of handwriting performance in 4th grade. It focuses on handwriting quantity and quality—specifically legibility, fluency, process factors, and lexical diversity. We conducted a longitudinal study with 30 developing writers randomly selected from a pool of 110 children attending five public schools in the Basque Country. Participants were assessed twice over a two-year interval using smart pens to evaluate their writing development. Data on process factors and lexical diversity were collected using automatic systems (Handspy and ANALHITZA), while legibility was manually coded. In an alphabet-writing task, two variables (legible letters and fluency) were assessed, whereas in a text composition task, four variables were analysed: number of lemmas in bursts, speed, words, and word types. Compared to 2nd grade, students in 4th grade showed statistically significant improvement across all indicators, with large effect size (Cohen's d >.80). Multiple regression analysis revealed that the number of words produced in 2nd grade significantly predicted the number of lemmas in bursts in 4th grade (R2 adjusted = .56). These findings support the development of targeted interventions based on early indicators of handwriting difficulties.

Practice-based research on acquiring sustainable development skills through teaching mathematics.
Keywords: Mathematics Education, Primary school education, Problem Solving, Sustainability
Presenting Author: Christina Misailidou, National and Kapodistrian University of Athens, Greece

The integration of Education for Sustainable Development (ESD) across all subject and all education levels is essential. Nevertheless, there is a lack of practical applications on integrating ESD in mathematics teaching and learning. This paper addresses the gap in the relevant literature by presenting the implementation of mathematics activities that were designed with the aim to empower the learners and to promote, through collaborative work, skills and values which are necessary for learning for sustainability. The study took place in a typical Greek primary school and the results indicate that the pupils enjoyed the process, constructed the desired mathematical knowledge and on the same time acquired valuable sustainable development skills.

Session E 2

26 November 2025 09:00 - 10:30
Meeting Room 3
Present & Discuss
Lifelong learning, Primary education, Secondary education

Present & Discuss: Teachers' Perspectives and Professional Development in STEM and STEAM Education

Keywords: Authentic learning, Beliefs and conceptions of learning, Collaborative Learning, Communities of Learners and/or Practice, Continuing professional development in Teachers, In-service Teacher Training, Mathematics Education, Professional Development, STEM, Teaching approaches, Training and Development
Interest group: CLOUD 02 - Educators' professional development

Chairperson: Marie-Jeanne Meijer, Windesheim University of Applied Sciences, Netherlands

Teachers' Perceptions of STEM Education: A Comparative Study with Definitions in Literature
Keywords: Beliefs and conceptions of learning, Continuing professional development in Teachers, Professional Development, STEM
Presenting Author: Mohammed Rizkallah, Sharjah Education Academy, United Arab Emirates

This study investigates how K–12 teachers perceive STEM education and how these perceptions align—or misalign—with definitions found in educational literature. Based on qualitative interviews with teachers in Sharjah, UAE, the study identifies gaps in understanding and implementation of STEM, particularly in interdisciplinary integration and real-world application. Teachers who had participated in STEM-focused professional development (PD) exhibited a deeper, more nuanced grasp of STEM principles and reported greater confidence in delivering integrated lessons. In contrast, teachers without PD exposure struggled to define STEM beyond science and mathematics, citing limited resources, unclear expectations, and lack of collaboration as barriers.Using open and axial coding, the study uncovers how PD functions as a catalyst for both conceptual clarity and pedagogical change. The findings suggest an urgent need for sustained, context-relevant PD programs that support educators in delivering high-quality STEM instruction.

Evaluating Impact of Professional Development Program Characteristics on In-Service Math Teachers
Keywords: In-service Teacher Training, Mathematics Education, Professional Development, Teaching approaches
Presenting Author: Juha Saarikoski, University of Helsinki, Finland; **Co-Author:**Katriina Maaranen, University of Helsinki, Finland; **Co-Author:**Jari Lavonen, professor emeritus, University of Helsinki, Finland

International comparative studies indicate declining student proficiency in mathematics.In-service teachers' professional development (TPD) refers to structured efforts to improve teachers' competencies in aims to elevate educational outcomes.Common TPD program characteristics include coaching, mentoring, instruction, resource provision, feedback, reflection, workshops, and learning communities, with varying duration, intensity, and content focus. Evidence on these characteristics' effectiveness remains inconsistent and many programs fail to yield expected outcomes To address the research gap, a systematic review and meta-analysis are conducted focusing on quantitative studies on math related in-service TPD. We identify and tabulate program characteristics, analyze whether they can be linked to reported effectiveness on teacher-level outcomes and explore the magnitude and durability of these effects.Scientific database searches (Scopus, WoS, ERIC, PsycINFO & ASC) yielded 4325 records, of which aprx.3000 have been screened (PRISMA protocol) against inclusion criteria. Results from ten studies identified for preliminary synthesis indicate that most used TPD components are learning communities, workshops, instruction, resource provision and feedback. Knowledge was the most common program focus, followed by practices and teacher beliefs. Studies favored longer duration. Randomized controlled trial (RCT) designs were rarer than quasi-experiments, and sustainment was not often measured. Results confirm previous observations for large variability in impact reporting.

Courageous Classrooms: How Teachers Tackle Controversial Issues
Keywords: Authentic learning, Communities of Learners and/or Practice, Professional Development, Teaching approaches
Presenting Author: Ama Amitai, Karel de Grote Hogeschool and Odisee hogeschool, Belgium; **Co-Author:**Mart Doms, Karel de Grote-Hogeschool, Belgium

This research explores how teachers address controversial issues—such as gender, war, or climate change—in classrooms across four European countries. Drawing on focus group interviews with 58 teachers and survey data from an international teacher training, the study identifies which topics are considered controversial, the challenges teachers face, and how collaborative professional development through lesson study supports them. Our results show that teachers acknowledge both the risks and educational value of engaging with controversial topics, often adopting "privilege" and "balance" approaches to discuss controversial issues. Key obstacles include a lack of resources and support in managing spontaneous controversies. Promising practices include co-teaching, whole-school projects, and a gradual introduction of controversial issues. In addition, initial findings suggest that joint training enhances teacher confidence and collaboration, fostering classrooms that are not only safe but also brave. The research highlights the need for tailored teacher education and joint reflection to effectively turn controversies into learning opportunities.

Collaboration between teachers during a STEAM training program reinforces authenticity in education
Keywords: Collaborative Learning, In-service Teacher Training, Professional Development, Training and Development
Presenting Author: Juliana Abra-Olivato, EDUNOVA.ISPA - Interdisciplinary Research Centre in Education, Portugal; **Co-Author:**José Castro Silva, ISPA-Instituto Universitário, Portugal; **Co-Author:**Nadia Ferreira, ISPA - Instituto Universitário, Portugal

How does participating in a STEAM training experience influence teachers' perceptions and practices related to collaboration is the central research question we aim to answer by content analysis of the written reflections and individual and group interviews carried out with the participants (n=18) of the training that took place between November 2024 and April 2025 in a cluster of public schools (Sintra, Portugal).The teachers had dedicated planning time to work with other members of their schools to develop their STEAM action plans during the professional development. They also were invited to share and comment about their and colleague's work. They reported that this collaboration helped them build and deepen peer relationships and develop plans that were more closely related to the STEAM areas and the learning objectives of the curriculum, which contributed to their success in implementing STEAM projects.Collaboration between teachers contributed to the formation of professional learning communities that favour reflective pedagogical practices. These communities encourage educators to critically evaluate their teaching methods, leading to more authentic and meaningful educational experiences for students. Reflective teaching, based on collaborative environments, allowed teachers to align their practices with their personal and professional values, thus reinforcing the authenticity of education.

Session E 3

26 November 2025 09:00 - 10:30
Meeting Room 5
Present & Discuss
Higher education, Secondary education, Workplace learning

Present & Discuss: Exploring Spaces, Practices, and Professional Growth in Education

Keywords: 21st century learning, Blended learning, Creativity, Higher education, Innovations in education, Instructional Design and Instructional Strategies, School development, Well-being & engagement, Work environments
Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development
Chairperson: Tao Wu, China

From Walls to Meaning
Keywords: 21st century learning, Innovations in education, School development, Work environments
Presenting Author: Jan Grannäs, University of Gävle, Sweden; **Co-Author:**Anneli Frelin, University of Gävle, Sweden; **Co-Author:**Karolina Lorentzi, Tengbom Architects, Stockholm, Sweden; **Co-Author:**Marie Lundmark Bergström, Huddinge Municipality, Sweden

This study explores how teachers and school staff interpret and respond to the design of newly built learning environments based on the principles of Innovative Learning Environments (ILE). Departing from the assumption that educational spaces are not neutral containers but active participants in the construction of pedagogical and social values, the study investigates how spatial affordances are made sense of during pedagogical walkthroughs in new schools. Drawing on the theoretical concepts of affordances, task perception, and interpretative frameworks, we examine how visiting staff reflect on the opportunities and constraints they perceive in unfamiliar but professionally relevant school environments. Data were generated through pedagogical walkthroughs in two newly built Swedish schools, where visiting participants – teachers, special educators, counsellors, and support staff – were invited to assess how spatial design might affect inclusion, well-being, and teaching practice. An abductive thematic analysis revealed that interpretations of space are deeply shaped by participants' existing professional norms and experiences. Glass walls, limited storage, acoustics, and circulation areas emerged as key themes. We argue that spatial affordances are always interpreted through socially constructed professional logics. Thus, meaningful implementation of ILEs requires structured processes that allow staff to critically reinterpret their task perception considering new spatial conditions.

Unleashing Potential: A study on the Innovative Work Behavior of Novice Teachers
Keywords: Creativity, Innovations in education, School development, Well-being & engagement
Presenting Author: Harry Rorije, Hogeschool Utrecht, Netherlands

Innovative work behavior (IWB) has been increasingly studied among teachers in recent years. However, little research has specifically focused on novice teachers' IWB and the factors that influence their IWB. This is particularly important, as novice teachers can be a valuable source of innovation within schools. To gain insight into this matter, a qualitative multiple case study was conducted among 14 novice teachers from several schools in secondary education. The results of this research show that novice teachers frequently independently renew their own educational practice, but novice teachers are rarely used in school-wide innovations. Factors that influence the innovative work behavior of novice teachers are: belief in their own creativity and specific knowledge for example

about ICT, a positive attitude towards innovation, the belief that the basics of education must be in order, the own perception of a lack of certain pedagogical and didactic knowledge and skills, the relationship with colleagues, an open organizational culture and available resources. Given the potential of novice teachers to contribute to educational innovation, this study highlights the need for schools and teacher education programs to actively support and engage them in innovation processes and offers concrete recommendations to strengthen this support.

Keeping students engaged in flexible Master education
Keywords: Blended learning, Higher education, Innovations in education, Instructional Design and Instructional Strategies
Presenting Author: Chantal Velthuis, Saxion University of Aplied Sciences, Netherlands; **Co-Author:**Tjark Huizinga, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Marjon Baas, Saxion University of Aplied Sciences, Netherlands

Flexibilization of education is becoming increasingly important for student success in higher education, particularly in Master education, due to the growing diversity in characteristics, needs, background and situation of students. Flexible learning addresses students' need for flexibility and autonomy on four dimensions: content, time, place and pedagogy (Jonker et al., 2020). These dimensions can relate to the institutional, program and course level (De Bruyne & Van den Broeck, 2020). In this educational design study, teacher teams develop flexibilization interventions on course level based on students' needs. We aim to identify teachers motives behind flexibilization choices and gain insights in experiences with these interventions and consequences for learning. The results of this study emphasize the need for more flexible education for students and highlight the importance of giving them greater control over their own learning process while ensuring they remain engaged with their peers and the program. The question remains whether flexibilization at course level meets *all* the needs of students, as the implemented flexibilization interventions are grounded on the zone of proximal development of teachers and students. For educational institutions, this research provides evidence-informed flexibilization interventions that can be used to make courses more flexible.

Session E 4

26 November 2025 09:00 - 10:30
Lecture Room 201
Present & Discuss
Vocational education

Present & Discuss: Shaping Quality and Values in Education: From VR Training to VET and Sustainability

Keywords: Collaborative Learning, Inclusivity, Inquiry learning, Practice-based research (methodology), Professionalisation of educators, Research-based learning, Social entrepreneurship, Social interaction, Sustainability, Virtual Reality, Vocational education
Interest group: CLOUD 02 - Educators' professional development, CLOUD 10 - Education for Sustainability, CLOUD 11 - Practice-based Research Methodology
Chairperson: Margus Pedaste, University of Tartu, Estonia

Shaping Tomorrow's Schools: Designing Social VR Training for Future Communication Situations
Keywords: Professionalisation of educators, Social interaction, Virtual Reality, Vocational education
Presenting Author: Judith Wittig, Otto-Friedrich-Universität Bamberg, Germany; **Co-Author:**Karl-Heinz Gerholz, University of Bamberg, Germany

This practice-based study explores how Social Virtual Reality (Social VR) can be used to reshape and improve digital communication processes within schools, e.g. between school management and department heads and also with external stakeholders. Drawing on 13 qualitative interviews with vocational school teachers in Germany, the research investigates the design and perception of an innovative in-service training concept that integrates Social VR environments to foster new ways of digital collaboration and communication, encouraging reflection, and improve digital competence.Findings highlight that immersive, shared VR experiences can stimulate authentic engagement, promote social presence, and trigger reflection on professional practice. Teachers valued the opportunity to explore digital tools in a low-risk, experiential setting and emphasized the importance of didactic clarity and practical relevance. These insights informed the iterative development of a hybrid training format grounded in experiential and transformative learning theory. This contribution discusses design principles and critical success factors for leveraging immersive technologies to strengthen digital communication in schools. By placing authentic teacher experiences at the center, the study demonstrates how Social VR can serve as a driver of innovation that enhances - not replaces - human-centered, participatory educational development across the school landscape.

Master educated teachers as drivers of quality in VET: the interaction of context and experience.
Keywords: Collaborative Learning, Inquiry learning, Professionalisation of educators, Vocational education
Presenting Author: Jeroen Rozendaal, University of Applied Science Rotterdam Hogeschool Rotterdam, Netherlands; **Co-Author:**Niek Van den Berg, Strix Aluco - onderzoek & innovatie, Netherlands

Over the past decade, the number of master-educated teacher leaders (MTLs) in Dutch education has increased significantly. However, schools often struggle to harness their potential. While MTLs are expected to tackle complex quality challenges through inquiry, many schools — including those in VET – lack a culture and structure that support collaborative and inquiry-based practice.This study – in four VET-schools identified three key themes that shape the role of MTLs: 1) driving inquiry-based working in teams; 2) promoting horizontal and vertical alignment within the wider organization; 3) ensuring MTLs' self-care and professional sustainability.The associated activities are presented in a dynamic model, ranging from those suited to novice MTLs in emerging learning cultures to those of experienced MTLs in more mature contexts. Experienced MTLs may revert to 'beginner activities' when entering new or less-developed environments. MTLs can use this model to choose and reflect on their activities and adapt them to the needs of their context.The study shows that MTLs can play a vital role in developing supportive organizational conditions for a stronger learning culture in VET, provided they engage in the above activities and adapt them to the specific characteristics of their context.

How VET students learn to make a difference through citizenship education
Keywords: Inclusivity, Practice-based research (methodology), Social entrepreneurship, Vocational education
Presenting Author: Jaap Kraak, MBO Rijnland, Netherlands

This study investigates the impact of a Citizenship curriculum on VET students' belief in their own abilities. The main focus is on VET students' political efficacy. Furthermore, the curriculum has been evaluated formatively with the aim of further development. The data collection consisted of open-ended survey questions and focus group interviews with students, as well as in-depth interviews with teachers. The data **derived** from students were thematically analyzed. The data from the **teacher interviews** were analyzed separately and compared with those of the students**to identify** similarities and differences in their experiences.**Results indicate that the curriculum raises students' awareness of their (potential) political influence. Both students and teachers acknowledge the importance of the curriculum. To carry out all its activities more successfully, it seems that the investigated curriculum needs to be extended in duration in future implementation.**

Enhancing Vocational Students' Sustainability Awareness Through Photovoice
Keywords: Professionalisation of educators, Research-based learning, Sustainability, Vocational education
Presenting Author: Mieke Kooloos, Koning Willem 1 College, Netherlands; **Presenting Author:**Elly Wildeman, Koning Willem 1 College, Netherlands

How do vocational students perceive sustainability in relation to their future profession, and how can their awareness be enhanced in a meaningful way? This practice-based qualitativestudy explores sustainability awareness among students in Dutch secondary vocational education (MBO). The project responds to the growing need for deeper integration of Educationfor Sustainable Development (ESD) into vocational training.
The research unfolds in two phases. In the first phase, semi-structured interviews were conducted with 13 students from diverse programs, including Interior Design, Hospitality, Healthcare, Fashion, IT, Retail, and Marketing. Questions focused on students' understanding of sustainability in their field, their awareness of the ecological, social, and economic dimensions, and their familiarity with the UN Sustainable Development Goals (SDGs).
The second phase applies the participatory Photovoice method to stimulate reflection: students photograph sustainability-related situations in their work-based learning environments anddiscuss them in guided group sessions and round-table dialogues. While not all 17 SDGs are addressed, the study emphasizes the triad of ecology, economy, and social well-being asrelevant to each profession. Teachers are engaged through reflective training. This session presents initial findings from both phases and invites dialogue on methodology, ethics, andcurriculum integration.

Session E 5

26 November 2025 09:00 - 10:30
Meeting Room 6
Present & Discuss
Higher education

Present & Discuss: From Game-Based Learning to Museum Ethnography: Enriching Higher Education Pedagogy

Keywords: Artificial intelligence, Authentic learning, Collaborative Learning, Communities of Learners and/or Practice, Culture and Education, Game-based learning / Gamification, Higher education, Instructional Design and Instructional Strategies, Reading, Training of young researchers
Interest group: CLOUD 01 - Teacher education, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Jurjen Ophuis, Avans Hogeschool / Avans University of Applied Sciences, Netherlands

Using game-based learning to improve second language reading skills for higher education students
Keywords: Authentic learning, Game-based learning / Gamification, Higher education, Reading
Presenting Author: Deborah Yapp, Hogeschool Leiden University of Applied Sciences, Netherlands; **Co-Author:**Mike Preuss, Leiden University, Netherlands; **Co-Author:**Wies Coppes, Hogeschool Leiden University of Applied Sciences, Netherlands

English is increasingly used worldwide for scholarly research, placing enormous demands on second language (L2) academic reading skills for college students. Reading strategy interventions can help, however, students from vocational education are insufficiently exposed to L2 academic reading for interventions to help. Nonetheless, a digital game-based learning (DGBL) intervention with reading strategy training may especially benefit poor readers as gamers seem to possess exceptional L2 reading skills compared to non-gamers. However, little investigation has occurred within higher educational contexts. To date, 451 law students were tested using a standardized reading test ($\alpha = 0.84$). Gamers ($N = 165$) scored on average significantly higher: $M = 26.0$; than non-gamers ($N = 286$, $M = 19.18$). Furthermore, 86% of participating gamers correctly identified as 'strong readers'. Gamers outperformed non-gamers in: vocabulary recognition, word formation, text structure and comprehension. Confirming our hypothesis that gamers read better than non-gamers. These findings underlie our custom designed and developed DGBL game *Lex Eterna* which will be implemented over three identical treatment periods and tested using a quasi-experimental pretest – posttest design. The research question guiding this project is: To what extent can an authentically designed DGBL L2 reading intervention improve the academic reading skills of college law students?

AI in Academia: Student Voices and the Quest for Authenticity in a Changing Educational Landscape
Keywords: Artificial intelligence, Authentic learning, Communities of Learners and/or Practice, Higher education
Presenting Author: Asta B Schram, University of Iceland, Iceland; **Co-Author:**Sigurbjorg Johannesdottir, University of Iceland School of Education, Iceland

As artificial intelligence (AI) becomes increasingly integrated into higher education, understanding how students perceive and use these tools is vital for maintaining authenticity in learning. This pilot study explores graduate students' experiences with AI in their coursework at a university in Iceland, aiming to inform the development of a comprehensive, university-wide survey.Twelve students participated in a pilot survey, which included both Likert-scale rated and qualitative items, sharing how they used AI for tasks such as generating ideas, summarizing texts, and structuring assignments. While most expressed positive attitudes—citing time-saving benefits, enhanced creativity, and support for critical thinking—many also voiced ethical concerns. These included doubts about the reliability of AI-generated information, data privacy risks, and the broader societal implications of rapid AI advancement.Student feedback directly shaped the refinement of the full-scale survey to ensure clarity and resonance. Additionally, AI tools were employed to assist in revising the final survey, demonstrating their potential role in participatory, responsive research design. This study highlights the importance of grounding educational innovation in student perspectives, ensuring that AI supports rather than supplants the authentic learning experience. It calls for clear guidance and open dialogue to navigate AI's evolving role in academic practice.

Playful learning in higher education: Experience in a psychology classroom
Keywords: Authentic learning, Collaborative Learning, Higher education, Instructional Design and Instructional Strategies
Presenting Author: Mona Wong, Birmingham City University, United Kingdom; **Co-Author:**Emily Coyne-Umfreville, Birmingham City University, United Kingdom

Playful learning in adult learning is believed to be useful, fun and motivational for teaching and learning. Yet it is a less investigated topic probably due to the difficulties in implementing and in measuring. In this presentation, the author will share some practical experience when implementing playful learning in a university by creating a playful yet structured environment. Four playful and one direct teaching activities were designed and implemented in 5 weeks. Quantitative feedback was collected in the final session, and results showed there was no difference among various learning activities (except the skills learnt for one of the playful activities). Qualitative feedback reflected that students appreciate the different types of activities which made their learning fun and enjoyable.

The Museum Ethnography Project: authenticity, active learning and community building
Keywords: Authentic learning, Culture and Education, Higher education, Training of young researchers
Presenting Author: Anastasia Misirli, University of Patras, Greece; **Co-Author:**Warren Kidd, University of East London, United Kingdom

This paper examines the *Museum Ethnography Project* at the University of Patras, Greece, through the lens of Cranton and Carusetta's (2004) five dimensions of authenticity in teaching: self-awareness, awareness of others, relationships with learners, awareness of context, and critical reflection. The project engaged undergraduate students from Educational Sciences and History/Archaeology in a co-created, museum-based ethnographic study, emphasizing active learning and student ownership. Educators modeled self-awareness and deliberately transferred power to students, fostering collaborative relationships and encouraging mutual respect. Students explored how museum spaces shape learning, while the dual-language setting required attentiveness to diverse needs. Critical reflection was embedded throughout, allowing students and educators to assess and revise processes. The project demonstrated that authentic, co-created learning fosters deeper engagement, confidence, and transferable skills, providing meaningful educational experiences beyond conventional classroom settings. These findings highlight the transformative potential of authenticity-centered approaches in active learning and suggest models for future curriculum design and practice.

Session E 6

26 November 2025 09:00 - 10:30
Meeting Room 2
Present & Discuss
Higher education

Present & Discuss: Strengthening Teacher Education Through Structures, Places, and Dialogue

Keywords: Authentic learning, Higher education, Initial Teacher Education (Pre-service), Innovations in education, Instructional Design and Instructional Strategies, Internships, Knowledge Building and Development, Mentoring, School development, Stakeholder partnerships, Sustainability
Interest group: CLOUD 01 - Teacher education
Chairperson: John Sabatini, The University of Memphis, United States

From one-time wonders to lasting collaborative structures for preservice teachers' degree projects
Keywords: Initial Teacher Education (Pre-service), Mentoring, School development, Sustainability
Presenting Author: Sara Viklund, Umeå University, Sweden

Collaboration between researchers and practitioners in the educational sector is increasing, with teacher education included. Some collaboration efforts aim to bring preservice teachers' degree projects closer to practice and engaging teachers in the process. 2019-20, a municipality and two universities explored a collaboration model of tripartite mentoring of degree projects, showing promising outcomes. Drawing on cultural-historical activity theory, this study explores the three organisations' endeavour to turn the single successful project into sustainable collaboration: How can long-term, systematic collaboration around preservice teachers' degree projects be established and maintained across institutions? What tensions occur between the organisations when trying to build long-term collaboration? What structural conditions enable or hinder continuity in collaboration? Empirical data consists of semi-structured interviews with key persons from the two universities and collaborating municipalities. Early findings show that the universities have chosen partly different ways of scaling up the project, adapting various strategies to fit both their own organisation's and their municipal collaborating partners' capacities. While collaboration brings mutual gains, the organisations face challenges such as reconciling divergent temporal frameworks. Among the factors enabling sustainability are balancing committed individuals with person-independent structures, articulating the added value at various levels in the systems and allocating resources for collaboration.

«One can talk about everything outside»
Keywords: Authentic learning, Higher education, Initial Teacher Education (Pre-service), Internships
Presenting Author: Helga Aadland, Western Norway University of Applied Sciences, Faculty of Education, Arts and Sports, Norway; **Co-Author:**Marit Kulild, Western Norway University of Applied Sciences, Norway; **Co-Author:**Marianne Størkson, Western Norway University of Applied Sciences (HVL), Norway; **Co-Author:**Trond Egil Arnesen, Western Norway University of Applied Sciences, Norway

We present research findings from a teaching program in Norwegian primary teacher education, where outdoor teaching and interdisciplinary teaching were both modelled and practiced. It was an interdisciplinary project where we brought together different subjects (physical education, music, arts & crafts and pedagogy) by using outdoor teaching and didactics (Becker et al., 2017). Our research question was: What skills do students in primary teacher education gain from participating in a teacher program which emphasizes outdoor teaching and interdisciplinary teaching? The data collection involved a focus group interview with nine students, and systematic text condensation (Malterud, 2012) was used to analyse the data. The student teachers gained experience in using outdoor teaching and interdisciplinary teaching, and they developed a repertoire of knowledge and skills that are fundamental to the teaching profession. The student teachers reported on successful use of the various activities from the teaching program in their own teaching practice. Furthermore, the student teachers pointed out that outdoor teaching and interdisciplinary teaching was well suited to fostering relational competence, which contributed to a safe learning environment focused on social interaction and trusting relationships—both among the student teachers themselves and between student teachers and pupils in primary school.

Revisiting place, face to face: Following up with alumni of a place-based education field school
Keywords: Authentic learning, Initial Teacher Education (Pre-service), Instructional Design and Instructional Strategies, Knowledge Building and Development
Presenting Author: Paula Waatainen, Vancouver Island University, Canada; **Co-Author:**Teresa Farrell, Vancouver Island University, Canada

Seven years after planning and implementing two place-based education (PBE) field schools in our Canadian teacher-education program, we conducted a follow-up study with field school alumni who have now been teaching 5 to 6 years. As researchers, we explored to what extent our alumni integrate learning from our field schools into their practice. We used a practice-based case study research methodology, collecting data via an anonymous online survey, through semi-structured interviews, and by recording knowledge building design discussions with our alumni at potential PBE field trip sites. Participants reported that the field school was memorable and impactful in building relationships, both interpersonal, and to the remote, historic canyon we visited. They identified factors such as location, time, and administrative support that support or hinder their ability to engage in PBE, but a desire to use PBE to engage students in authentic work, despite obstacles.

How can an enhanced focus on coherence strengthen authenticity in teacher education?
Keywords: Authentic learning, Initial Teacher Education (Pre-service), Innovations in education, Stakeholder partnerships
Presenting Author: Tove Holmbukt, Department of teacher education and pedagogy, Norway; **Co-Author:**Ove Gunnar Drageset, Department of education and pedagogy, Norway; **Co-Author:**Kristin Isaksen, Department of education and pedagogy, Norway

Authenticity is vital in teacher education (TEd), ensuring meaningful learning and fostering engagement. This presentation examines how coherence can enhance authenticity by addressing the theory-practice gap, promoting meaningful learning and collaboration.The theory-practice gap is a global challenge in TEd. In Norway, a disconnect between campus-based teaching and practicum disrupts continuity, leaving students struggling to integrate theoretical knowledge with practical skills. Hammerness (2006) identifies two dimensions of coherence: structural and conceptual coherence. Coherence is essential for integrating theory and practice, grounding education in classroom realities, and preparing students to improve schools.Two initiatives, campus-integrated practice and micro-practice, aim to enhance coherence. Campus-integrated practice involves weekly campus days during practicum, for reflection and connecting theory and practice. Micro-practice lets students apply theory through pre-planned school lessons, followed by reflection. Research question: How can campus-integrated practice and micro-practice support authenticity through enhanced coherence in teacher education? Data for this qualitative study was collected through interviews, reflection and evaluation sessions, students' reflection notes, and teacher educators' reflection logs.Preliminary findings suggest these approaches may enhance participants' learning and reduce the theory-practice gap, but this far face challenges in achieving conceptual coherence.

Session E 7

26 November 2025 09:00 - 10:30
Meeting Room 103
Poster Presentation
Higher education, Secondary education

Poster Presentation: Supporting Student Learning Across Diverse and Evolving Educational Contexts

Keywords: 21st century learning, Assessment and evaluation, At-risk students, Culture and Education, Deep-level and profound learning, Diversity, Educational Attainment & Achievement, Educational Effectiveness and quality of education, Emotions and emotional development, Game-based learning / Gamification, Higher education, Innovations in education, Inquiry learning, Instructional Design and Instructional Strategies, Language Education, Learning Analytics, Motivation, Problem-based learning, School development, Self-regulation and self-regulated learning, Virtual Reality
Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 11 - Practice-based Research Methodology
Chairperson: Janne Fengler, University of Luxembourg, Luxembourg

Teacher support and control strategies in different learning environment: Links to student emotions
Keywords: Emotions and emotional development, Innovations in education, Inquiry learning, Instructional Design and Instructional Strategies
Presenting Author: Sabine Schweder, University Greifswald, Germany; **Co-Author:**Gerda Hagenauer, University of Salzburg, Austria; **Co-Author:**Lia Grahl, University Greifswald, Germany; **Co-Author:**Diana Raufelder, University Greifswald, Germany

Teacher autonomy support and control strategies play a crucial role in shaping students' emotional experiences and self-regulated learning. Autonomy-supportive teaching fosters independence and engagement, while control strategies help students regulate their learning. This study examines how these factors differ between teacher-directed instruction (TDI) and self-directed learning (SDL) and their impact on students' positive emotions.A longitudinal study with 754 students (M age = 13.56, SD = 1.2; 49.7% female) analyzed teacher autonomy support, control strategies, and positive emotions across four time points using latent change score models. Results indicated that autonomy support and control strategies were higher in SDL than in TDI. Both factors significantly predicted positive emotions, with stronger effects observed in SDL phases. Transitions between instructional settings influenced self-regulation, as improvements in SDL were not always sustained when returning to TDI.These findings highlight the need for instructional approaches that integrate autonomy support across different learning environments to sustain students' emotional and self-regulatory development. Teachers should encourage control strategies beyond SDL phases to prevent declines in self-regulation. Future research should explore interventions to maintain autonomy support across instructional transitions, ensuring continuous engagement and positive emotions in both structured and independent learning contexts.

Goals and Learning Strategies: A Longitudinal Analysis of Different Learning Environments
Keywords: 21st century learning, Deep-level and profound learning, Problem-based learning, Self-regulation and self-regulated learning
Presenting Author: Sabine Schweder, University Greifswald, Germany; **Co-Author:**Lia Grahl, University Greifswald, Germany; **Co-Author:**Diana Raufelder, University Greifswald, Germany

Achievement goals and learning strategies play a crucial role in shaping students' achievement goals across different instructional settings. This study examines how teacher-directed instruction (TDI) and self-directed learning (SDL) influence students' goals and learning strategies over time. Based on Achievement Goal Theory, mastery goals are expected to be more prominent in SDL, where students engage in deep-learning strategies, whereas performance-avoidance goals and surface-learning strategies are hypothesized to be more prevalent in TDI.A longitudinal study was conducted with 754 students (Mage = 13.56 years, SD = 1.2; 49.7% female) across four time points, alternating between TDI (t1, t3) and SDL (t2, t4). Achievement goals were assessed using scales developed by Spinath et al. (2012), while learning strategies were measured using the PISA Scale (Artelt et al., 2003). Latent change score models and bivariate latent change score models were used to analyze changes in goal orientations and learning strategies.Findings indicate that SDL enhances mastery goals and deep-learning strategies while reducing performance-avoidance goals and surface-learning strategies. The transition between SDL and TDI influences students' ability to maintain self-regulated learning. These results highlight the need for instructional designs that integrate SDL elements to sustain motivation and adaptive learning strategies across different educational contexts.

Fostering Intercultural Sensitivity Among Japanese University Students
Keywords: Culture and Education, Educational Effectiveness and quality of education, Language Education, Motivation
Presenting Author: Yuko Nakano Tomoto, Yokohama College of Commerce, Japan; **Co-Author:**Yoko Shirasu, Cyber University, Japan; **Co-Author:**Yuki Amaki, Aoyama Gakuin University, Japan

This study examines educational practices designed to foster intercultural sensitivity among Japanese university students in a culturally homogeneous society. It aims to develop a new framework for evaluating how intercultural experiences can enhance intercultural sensitivity among Japanese university students in a culturally homogeneous society. With the COVID-19 pandemic limiting opportunities for overseas exchange, our focus shifted to domestic intercultural programs, offered both virtually and in-person. We implemented programs at Tokyo Global Gateway and British Hills, and also provided students with COIL activities offering experiential English education with a focus on intercultural engagement, evaluating their effectiveness using Intercultural Development Inventory (IDI).

The findings showed that students demonstrated increased interest in intercultural communication and growth in their developmental stages of intercultural sensitivity. However, the impact of these programs varied depending on each student's previous experiences and language proficiency. Some students showed more significant gains than others, suggesting that individual backgrounds play a key role in intercultural learning outcomes. Additionally, our analysis revealed limitations in IDI as some items were culturally unfamiliar for Japanese participants. Based on these insights, we propose developing a revised version of IDI that is more culturally and linguistically appropriate for Japanese learners.

Vulnerable students in higher education: demands, resources, needs and study-success
Keywords: At-risk students, Diversity, Educational Attainment & Achievement, Higher education
Presenting Author: Gert Vanthournout, AP University of Applied Sciences and Arts, Belgium; **Co-Author:**Sabrina Govaerts, AP University of Applied Sciences and Arts Antwerp, Belgium; **Co-Author:**Astrid Koelman, AP University of Applied Sciences and Arts, Belgium

Vulnerable students @ AP is a project that runs at AP university of applied sciences and arts in 2025. It aims to enhance the study-success of vulnerable students in higher education by exploring their support needs. The study Uses the study demands resources model as a theoretical framework and methodologically adopts a mixed method approach. Quantitative analyses on available data in the student administration databases will shed light on the prevalence of groups of vulnerable students at AP. They will also investigate the degree to which groups of vulnerable students struggle with study-success. Based on these outcomes, the support needs specific groups of students will be explored into more detail using qualitative methodology. More specifically, individual interviews will be conducted with vulnerable students and their surroundings (e.g. parents, teachers, counsellors, …). Results are unavailable at this time but will be included in the poster. Research results of the study will be translated into persona (imaginary representatives of a group of vulnerable students), into policy advice and into an infographic targeting teachers.

Designing user-friendly reports: using eye-tracking to improve feedback for pupils and parents
Keywords: Assessment and evaluation, Educational Effectiveness and quality of education, Learning Analytics, School development
Presenting Author: Sabrina Govaerts, AP University of Applied Sciences and Arts Antwerp, Belgium; **Presenting Author:**Ellen De Bruyne, AP University of Applied Sciences and Arts Antwerp, Belgium; **Presenting Author:**Elena Van den Broeck, AP University of Applied Sciences and Arts Antwerp, Belgium; **Co-Author:**Amber Hoefkens, AP University College Antwerp, Belgium; **Co-Author:**Yasmine Wauthier, AP University College Antwerp, Belgium; **Co-Author:**Gert Vanthournout, AP University of Applied Sciences and Arts, Belgium

This practice-based study examines how pupils and their parents interpret and engage with feedback reports from newly implemented standardized reading and mathematics tests in Flemish primary and secondary education. The reports aim to present test results in a clear and user-friendly way. Guided by principles of effective feedback (Hattie & Timperley, 2007; Van Gasse et al., 2015), an Educational Design Research (EDR) approach was used across four iterative cycles involving design, testing, and refinement.Data were collected through semi-structured interviews (N=22), eye-tracking, and skin conductance (cycle 3 only), with a focus on interpretation, usability, and support needs. Findings revealed that while the report was generally accessible, certain visual elements drew disproportionate attention, leading to misinterpretation or cognitive overload. Based on these insights, further adjustments were made and retested in cycle 4. The study concludes that effective feedback must not only be clear and visually intuitive but also supported by targeted guidance. Moreover, physiological data such as eye-tracking can provide valuable insights into user experience, informing evidence-based design decisions. These findings contribute to the improvement of test result communication and support future educational practice.

DIGILAB, training lab skills in a VR clinical lab
Keywords: Game-based learning / Gamification, Higher education, Learning Analytics, Virtual Reality
Presenting Author: Karolien Van den Bergh, UCLL, Belgium; **Co-Author:**Lut Gielen, University of Applied Sciences Leuven-Limburg, Belgium; **Co-Author:**Dave Sere, UCLL, Belgium; **Co-Author:**Laura Campbell, UCLL, Belgium; **Co-Author:**Vincent Katsoulis, UCLL, Belgium; **Co-Author:**Reinoud Berkein, UCLL, Belgium

To immerse students Medical Laboratory Technology (MLT) of the Professional Bachelor Program (PBA) of Biomedical Laboratory Technology (BLT) in very expensive state-of-the-art technology lab automates of a clinical lab, a virtual lab, Digilab, was developed at the University of Applied Sciences Leuven Limburg. The architecture of Digilab is a collaboration between XPLab, PBA in Biomedical Laboratory Technology and Roche Diagnostics Belgium. Digilab is a game-based learning tool to train students MLT, lab technicians and health care professionals in a virtually simulated medical laboratory environment. By using VR headset and controllers they enter a virtual clinical lab room and operate a modular diagnostic lab automate to get confident with pre-routine set up, daily routine and post-routine analysis of patient's samples. All units are interactable and communicate with the control panel. Clinical laboratories experience an urgent need to train medical laboratory technicians to operate high tech lab automates. VR applications like Digilab make training courses more efficient as they become time and place independent. Besides, Digilab makes authentic training applications on lab automates accessible for students and creates a safe environment to practice. Students are enthusiastic about VR game-based learning. Moreover, Digilab gives MLT students a better perception of their future job content.

Session E 8

26 November 2025 09:00 - 10:30
Meeting Room 101
Poster Presentation
Higher education, Secondary education

Poster Presentation: Equity, Literacy, and Ethics in AI-Enhanced Education

Keywords: 21st century learning, Artificial intelligence, Beliefs and conceptions of learning, Continuing professional development in Teachers, Curricula, Equality / Education for All, Higher education, Innovations in education, Knowledge Building and Development, Knowledge Management for Teaching & Learning, Language Education, Learning Analytics, Professional Development, Secondary school education, Teacher thinking, Technology Enhanced Learning
Interest group: CLOUD 01 - Teacher education, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 08 - Diversity & equality in different contexts
Chairperson: Chantal Brans, Eindhoven University of Technology, Netherlands

Promoting Equity in Higher Education: Identifying Bottlenecks with Machine Learning
Keywords: Artificial intelligence, Equality / Education for All, Higher education, Learning Analytics
Presenting Author: Poko Janssen, The Hague University of Applied Sciences, Netherlands

This practice-based research investigates how equitable the student experience is within the primary teacher education program at The Hague University of Applied Sciences (THUAS). It is part of the broader "No Fairness Without Awareness" project, which aims to map and address systemic barriers to student success. The central question is: *Do all students with comparable potential have the same chance to progress through their studies and graduate?*To explore this, student data is analyzed using machine learning techniques to detect patterns in academic progression that may point to unequal outcomes among different student groups. Rather than predicting individual performance, the research identifies moments in the curriculum where students are more likely to fall behind—so-called "bottlenecks." Importantly, the goal is not to fix the data or the models, but to use them as tools to highlight possible inequities that can inform constructive dialogue and action. The intended result is to provide program leaders and educators with new insights and concrete evidence to support curriculum improvements that foster a more inclusive learning environment for all students.

Digital Literacy in the PABO: A Learning Trajectory for Critical Digital Teaching
Keywords: Artificial intelligence, Curricula, Higher education, Technology Enhanced Learning
Presenting Author: Luca van Slagmaat, De Haagse Hogeschool, Netherlands

As society becomes increasingly digital and new national curriculum objectives for digital literacy are being introduced, the urgency to structurally embed digital literacy in teacher education is growing. At the PABO of The Hague University of Applied Sciences, the current approach is fragmented and inconsistent, resulting in unequal preparation of students across the different study tracks.This practice-based study aimed to design a digital literacy learning trajectory. The research followed the practice-based research cycle (Van der Donk & Van Lanen, 2024), combined with the ADDIE model for instructional design. Data were collected through literature review, interviews, focus groups, surveys, and document analyses.The results underscore the need for integrated, in-depth, and critically reflective digital literacy education. The trajectory not only develops technical and pedagogical competencies but also prepares students to use technology consciously in the classroom. Special attention is given to technology's opportunities, challenges, and risks, such as AI, which is increasingly used in adaptive learning environments in primary education. The learning trajectory offers a foundation for future-proof curricula and equips prospective teachers with the skills and awareness needed to teach in a digital society.

Human-Centered Learning in the Age of AI: Transforming Traditional Schools into Modern Learning Hubs
Keywords: 21st century learning, Artificial intelligence, Beliefs and conceptions of learning, Innovations in education

Presenting Author: Yuan Wang, Heidelberg University, Germany

This practice-based research explores how school leaders, teachers, and students co-construct meaningful and human-centered learning environments in secondary education in the context of AI-driven digital school transformation. Drawing on a cross-cultural qualitative case study in Germany, Finland, and China, the study investigates how educational leadership, pedagogical practices, and students' motivational needs interact under the influence of artificial intelligence in school environment.The research builds upon Viviane Robinson's "Student-Centered Leadership," Anne Sliwka's "Deeper Learning" framework, and the Self-Determination Theory by Edward L. Deci & Richard M. Ryan. Methodologically, it combines ethnographic fieldwork, interviews, and document analysis to explore subjective interpretations and practical enactments of AI integration in schools. Data collection is ongoing.Preliminary findings from early fieldwork at innovative schools suggest that trust-based leadership, adaptive teaching roles, and learner autonomy play a crucial role in AI-integrated school development. This research aims to provide practice-informed orientations for rethinking human-centered learning in the age of AI, ensuring that educational innovation aligns with pedagogical purpose and learner well-being.

Towards a multilevel framework for AI literacy in education
Keywords: Artificial intelligence, Higher education, Knowledge Building and Development, Knowledge Management for Teaching & Learning
Presenting Author: Hanneke Theelen, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Elske van den Boom-Muilenburg, HU University of Applied Sciences Utrecht, Netherlands; **Co-Author:**Maarten Renkema, University of Twente, Netherlands; **Co-Author:**Ilona Friso-van den Bos, University of Twente, Netherlands; **Co-Author:**Iwan Wopereis, Open Universiteit, Department of Online Learning and Instruction, Netherlands; **Co-Author:**Kim Schildkamp, University of Twente, Netherlands

The fast-paced development of Artificial Intelligence (AI) challenges educational institutions to prepare students and teachers for a future shaped by intelligent technologies. As AI systems increasingly enter the classroom, understanding and responsibly engaging with these systems becomes vital. This study addresses the research question: What are the indicators of AI literacy relevant to education, and how can they be conceptualized in a framework? Using an umbrella review methodology based on the Joanna Briggs Institute (JBI) guidelines (2017), we synthesized findings from 31 review studies. Our analysis identified two dominant definitions of AI literacy and key indicators across studies. These insights informed a novel multilevel framework centred on knowledge, skills, attitudes, ethics, and the didactics of AI literacy. Although the framework aims to address AI literacy at individual, team, and institutional levels, current literature primarily focuses on the individual level. This framework can support educational practice by guiding curriculum development, teacher training, and policy aligned with authentic, human-centred AI integration.

Design principles for using an AI-based task-oriented spoken chatbot in foreign language education
Keywords: Artificial intelligence, Language Education, Secondary school education, Technology Enhanced Learning
Presenting Author: Annemieke de Jong, HAN University of Applied Sciences (UAS), Netherlands

This design research aims to develop and test a teaching approach focused on enhancing conversational skills in foreign languages within secondary schools. The arrangement will be co-created with in-service teachers and pupils and will utilize Technology Mediated Task-based Learning alongside a spoken chatbot. The primary research question is: "What are the key design principles for integrating an AI-based task-oriented conversational agent into foreign language education in secondary schools to enhance conversational skills?"
In today's multicultural societies, proficiency in multiple languages is important. However, teachers face challenges in teaching conversational skills due to learners' speaking anxiety (Dörnyei & Ushioda, 2021) and reduced willingness to communicate (Botes et al., 2020; Mouhoubi-Messadh & Khaldi, 2022). Previous research shows that task-based spoken chatbots improve vocabulary and language proficiency (Bibauw et al., 2022) and reduce foreign language anxiety while increasing enjoyment and willingness to communicate (Zhang et al., 2024). However, their didactic implementation is under-explored. Following a design-based approach (McKenney & Reeves, 2019) we will design a teaching approach utilizing a spoken chatbot, in co-creation with in-service teachers and pupils. Preliminary results indicate key design principles: Technology-Mediated Task-based Language Teaching, linguistic priming, and real-life situations.

Ethical implications for using GenAI in personalized learning: A scoping review
Keywords: Artificial intelligence, Continuing professional development in Teachers, Professional Development, Teacher thinking
Presenting Author: Filippo Marcato, University of Padova, Italy, Italy; **Co-Author:**Sarah Schmidt, University of Padova, Italy

With the emerging usage of Generative Artificial Intelligence (GenAI) as an educational tool in personalized learning the consideration of ethical implications represents a fundamental issue. For a balanced and responsible implementation of GenAI in educational settings we need to successfully navigate it. In this scoping review we evaluate articles that identify key ethical issues about the use of GenAI in personalized learning as well as proposed practical solutions. The review follows the PRISMA model to identify peer-reviewed articles in the databases Web of Science, SCOPUS, and ERIC. The keywords used were a combination of "GenAI", "Personalized Learning", and "Ethics". The results highlight common concerns about data privacy and algorithm fairness but not in the consequential solutions. The paper highlights a substantial lack of pedagogical perspectives on ethical frameworks and the need for investigating tailored approaches to use GenAI ethically, such as actionable guidelines on an institutional level.

Session E 9

26 November 2025 09:00 - 10:30
Meeting Room 102
Poster Presentation
Early childhood education, Lifelong learning, Secondary education, Vocational education

Poster Presentation: Lifelong Learning, Well-Being, and Global Competence in a Changing World

Keywords: Competence-based education, Continuing professional development in Teachers, Early childhood education, Higher education, Inquiry learning, Labour market & formal learning, Lifelong Learning, Mentoring, Professional Development, Secondary school education, Self-regulation and self-regulated learning, Stakeholder partnerships, STEM, Sustainability, Teaching approaches, Technology Enhanced Learning, Vocational education, Well-being & engagement
Interest group: CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being, CLOUD 05 - HRD & Workplace learning, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 10 - Education for Sustainability
Chairperson: Hafsteinn Einarsson, University of Iceland, Iceland

Responsive Lifelong Learning at the Interface of Education and Professional Practice
Keywords: Labour market & formal learning, Lifelong Learning, Professional Development, Vocational education
Presenting Author: Marcel Metsaars, Koning Willem I College, Netherlands; **Co-Author:**Tom Adams, Koning Willem 1 College, Netherlands

This practice-based research explores how meaningful (learning) activities and experiences—acquired by students both in vocational education and in professional practice—can be better recognized and valued. The central aim is to enhance the learning potential at the interface between education and the workplace, thereby strengthening the regional alignment between vocational education and the labor market. A key sub question focuses on how the outcomes of boundary interactions between education and professional practice can be further optimized to foster more responsive forms of collaboration, what commonalities and differences emerge between vocational education and industry in defining certifiable learning units?The study adopts a third-generation Cultural-Historical Activity Theory (CHAT) framework, combined with task analysis, the storyline method, and a mixed-methods approach involving surveys and interviews with stakeholders from both educational and professional contexts. Preliminary findings indicate that mutual recognition of learning activities across boundaries is still fragmented and often implicit. By making boundary interactions more visible and dialogical, both educators and professionals are better able to co-design responsive learning trajectories. The study concludes with practical implications for designing boundary-crossing interventions that enhance lifelong learning and promote stronger collaboration between VET institutions and regional employers.

Emerging and continuous codesign of a professional learning module
Keywords: Continuing professional development in Teachers, Early childhood education, Professional Development, STEM
Presenting Author: Sergei Glotov, University of Luxembourg, Luxembourg; **Co-Author:**Melanie Jorge, University of Luxembourg, Luxembourg; **Co-Author:**Doriana Sportelli, University of Luxembourg, Luxembourg

The poster discusses continuous codesign of a professional learning module for early childhood teachers around the topic of Bridges and Towers that emerged and evolved through the teacher-researcher collaborations and cogenerative dialogue. The poster examines two sessions of the module completed in different contexts within half a year from each other. It highlights the differences between the sessions, and argues that instead of compromising the module's objective, the differences and the space to make such differences allowed for the coteachers and participants to take agency, as well as for the module to be contextually-responsive. It concludes that collaboration rooted in cogenerative dialogue allows for a professional learning module to be adaptive and responsive while

retaining alignment to core objectives.

Student well-being: 16 effective elements & follow-up research in VET and Higher Education"
Keywords: Higher education, Mentoring, Vocational education, Well-being & engagement
Presenting Author: Zwaan Zwart, Noorderpoort, Netherlands; **Co-Author:**Annegien Langeloo, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Aafke van Mourik Broekman, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Elanor Kamans, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Dineke Tigelaar, ICLON, Leiden University, Netherlands; **Co-Author:**Marca Wolfensberger, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Mariken Hofwegen, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Suzan van Brussel, Avans University of Applied Sciences, Netherlands

This research, conducted within the context of Dutch secondary vocational education (MBO) and higher education, aims to identify and evaluate effective strategies for improving student well-being. Supported by funding from the Dutch National Education Program (NPO), the project explores a broad range of initiatives designed to strengthen students' social connectedness and well-being. Through comprehensive analysis, we found that many valuable strategies have been developed and implemented across institutions. These initiatives were systematically identified, categorized, and synthesized into sixteen overarching elements that characterize effective approaches to enhancing student well-being.We also investigated how to increase participation in initiatives aimed at improving social connectedness and student well-being. The research findings are presented on www.samensterkerinhetonderwijs.nl. This website offers education professionals practical tools to enhance students' social connectedness and well-being in their own educational settings, using the identified effective elements and supported by concrete examples of various approaches in initiatives at VET and higher education. Effective education and student welfare policy begins with taking the question seriously: "What does this student need *right now*?" This requires flexibility, variety, choice, and a human-centered approach.

Designing AI-supported online course to enhance working people's data citizenship
Keywords: Lifelong Learning, Professional Development, Self-regulation and self-regulated learning, Technology Enhanced Learning
Presenting Author: Kristiina Mänty, University of Oulu, Finland; **Co-Author:**Egle Gedrimiene, University of Oulu, Finland; **Co-Author:**Azusa Nakata, University of Oulu, Finland; **Co-Author:**Riikka Tumelius, University of Oulu, Finland; **Co-Author:**Hanna Järvenoja, University of Oulu, Finland

This poster presents the design and initial experiences of an online course on data citizenship which was developed to enhance ethical and critical data skills required at workplaces in the age of AI. The course is implemented in AI-supported collaborative learning environment and targets professionals from diverse workplaces. Grounded in computer-supported collaborative learning affordances and self-regulated learning frameworks, the design process follows four steps: 1) mapping skill development needs in multidisciplinary and international work communities, 2) developing course contents, 3) implementing a course in an online environment with activities boosting motivation and engagement, 4) piloting the course and gathering participant experiences. The aim of this poster is to showcase the theory-based design process and explore participants' experiences and activities in relation to course contents, design, communication and implementation. The participants' experiences will be collected through questionnaires and their learning activities through cumulating process data from the learning environment and learning analytics. The results will offer insights into designing and implementing professional training courses in AI-based learning environments that are flexibly integrated to work, and provides information on enhancing data literacy and agency in today's data driven world.

The Relationship Between High School Students' Inquiry Topics and Their Global Competence
Keywords: Competence-based education, Inquiry learning, Secondary school education, Sustainability
Presenting Author: Satoshi Kajitani, Kyoto University, Japan; **Co-Author:**Takashi Kusumi, Kyoto University, Japan; **Co-Author:**Yusuke Takahashi, Kyoto University, Japan

This study examines how the social and academic characteristics of high school inquiry topics relate to students' global competence, as defined by the OECD. Second- and third-year students from Japanese public high schools participated. Students' inquiry topics were evaluated along two dimensions: social relevance (connection to societal issues) and academic rigor (possibility for structured research). Five subscales of global competence were used as dependent variables: awareness of global issues, engagement, interest in other cultures, respect for diversity, and global mindedness. Two-way ANOVAs were conducted by grade level. Results showed that for third-year students, social relevance significantly affected engagement, and an interaction between social and academic characteristics influenced global mindedness. Among second-year students, social relevance impacted interest in other cultures. These findings suggest that engaging with socially relevant themes can foster global competence, especially its affective components. Moreover, academically structured themes may strengthen global perspectives when paired with social relevance. This highlights the importance of designing inquiry topics that are both socially and academically meaningful, aligning with the goals of global education.

Strengthening Education for Sustainable Development in a Regional Ecology of Learning
Keywords: Secondary school education, Stakeholder partnerships, Sustainability, Teaching approaches
Presenting Author: Arjen Pieter Nawijn, Aeres Hogeschool Wageningen, Netherlands

In the Dutch Gelderse Vallei region, four secondary and vocational schools collaborate with Aeres University of Applied Sciences and Wageningen University to foster Education for Sustainable Development (ESD). Central to this initiative are school-based 'labs' in which teacher-researchers co-develop practice-based innovations and conduct research. The project addresses four core questions: (1) to what extent do students develop ESD competencies? (2) which pedagogical-didactical roles and competencies of teachers support this development? (3) what learning environments contribute effectively? and (4) how can inter-organizational research collaboration foster sustainable educational practices?

The research uses mixed methods including questionnaires, product analyses, interviews, and timeline-based retrospectives. Preliminary results indicate strengthened teacher leadership, increased cross-school collaboration, and promising insights into the design of ESD learning environments.

This poster outlines the broader project and research design, while showcasing one in-depth case on systems thinking. This case explores the use of student-created causal loop diagrams and rubrics for formative assessment. The poster invites dialogue with practitioners and researchers to reflect on conditions that foster sustainable thinking and action within and beyond the classroom.

Award Session 1

26 November 2025 11:00 - 12:30
Aula Magna
Best Practice-Based Research Award
Higher education

Best Practice-Based Research Award

Keywords: Authentic learning, Blended learning, Educational Effectiveness and quality of education, Higher education, Instructional Design and Instructional Strategies, Learning styles / approaches, Problem-based learning
Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Empowering Flexible Learning: From Evidence to Action with the myScripting Design Toolkit
Keywords: Blended learning, Educational Effectiveness and quality of education, Higher education, Instructional Design and Instructional Strategies
Presenting Author: Claude Müller, Center for Innovative Teaching and Learning, Switzerland; **Co-Author:**Jennifer Erlemann, ZHAW School of Management and Law, Switzerland

This practice-based research project explored the implementation of flexible learning in higher education, resulting in the development of *my*Scripting, a digital course design assistant. In response to the growing demand for blended and online formats, the long-term FLEX project examined how flexible learning can uphold educational quality while addressing the evolving needs of students and faculty. Based on data from over 130 courses and multiple empirical studies, the project found that blended learning with reduced classroom time can achieve outcomes equivalent to traditional instruction—when supported by thoughtful, evidence-based design. An interdisciplinary team of researchers, educators, and developers translated these insights into *my*Scripting, an open-access toolkit that guides educators in creating engaging, effective digital learning environments. Grounded in proven educational design principles, the tool is now widely used in faculty development initiatives. Key lessons include the critical role of intentional course design, the need for institutional support, and the value of practical tools that lower barriers to innovation. By embedding research into practice, this project offers a scalable, sustainable model for digital transformation in higher education and makes a significant contribution to the field of learning design.

Embracing Authenticity through Challenge-Based Learning in Higher Education
Keywords: Authentic learning, Higher education, Learning styles / approaches, Problem-based learning
Presenting Author: Kerstin Helker-Schlotmann, CBS University of Applied Sciences, Germany; **Co-Author:**Jasmina Lazendic-Galloway, TU/e innovation

Space, Eindhoven University of Technology, Netherlands; **Co-Author:**Miguel Bruns, Eindhoven University of Technology, Netherlands; **Co-Author:**Jan Vermunt, University of Limassol, Cyprus; **Co-Author:**Isabelle Reymen, Eindhoven University of Technology, Netherlands

Challenge-Based Learning (CBL) is a relatively novel concept responding to calls for creating authentic learning environments that allow university students to make sense of their learning. In order to support the wider implementation of CBL at [Author's University], this project set out by collecting insights into existing CBL courses to learn about students' and teachers' perspectives and examined teacher involvement and professionalization. This step informed the development of a theoretical framework of student learning in CBL, that was evaluated with data.
A team of researchers and practitioners then re-designed a learning line of three courses towards CBL. Re-design initiatives were accompanied with qualitative research capturing teacher collaboration and adaptation to changing teachers roles in CBL. Furthermore, longitudinal quantitative research was conducted to compare students' learning processes and outcomes in the original and the CBL courses. Results reveal numerous differences that will inform theory and practice.
Our results not only benefit practitioners in the current CBL courses but also contributed to the development of support structures for (re)designing CBL courses, such as a toolkit and challenge portfolio. The main project insight is that CBL is a highly adaptable, future-proof educational concept that may foster sustainable student learning.

Keynote Speeches 1

26 November 2025 13:30 - 14:30
Aula Magna
Keynote

Embracing the unknown: Teachers' professional learning and AI

Keywords: Artificial intelligence, Authentic learning, Continuing professional development in Teachers, Technology Enhanced Learning
Interest group:
Chairperson: Sibel Inci, Turkiye

In a rapidly evolving digital world, the rise of artificial intelligence (AI) continues to generate both excitement and unrest in education. In our keynote "*Embracing the unknown: Teachers' professional learning and AI*", we consider interactions between teachers, professional learning and AI-advancements. Our aim is to examine claims, possible benefits and the conditions to professionalise teachers to navigate an uncertain, AI-augmented future. The discussion will consider not only the feasibility of AI tools in education, but also professional development strategies required to make decisions about where they can usefully integrate new technologies in an authentic educational practice. Ultimately, this keynote argues for positioning teachers not just as users of AI, but as the shapers of its role in education.

Embracing the unknown: Teachers' professional learning and AI
Presenting Author: Jo Tondeur, Vrije Universiteit Brussel, Belgium; **Presenting Author:**Sarah Howard, University of Leeds, United Kingdom

In a rapidly evolving digital world, the rise of artificial intelligence (AI) continues to generate both excitement and unrest in education. In our keynote "*Embracing the unknown: Teachers' professional learning and AI*", we consider interactions between teachers, professional learning and AI-advancements. Our aim is to examine claims, possible benefits and the conditions to professionalise teachers to navigate an uncertain, AI-augmented future. The discussion will consider not only the feasibility of AI tools in education, but also professional development strategies required to make decisions about where they can usefully integrate new technologies in an authentic educational practice. Ultimately, this keynote argues for positioning teachers not just as users of AI, but as the shapers of its role in education.

Keynote Speeches 2

26 November 2025 13:30 - 14:30
Aula Prima
Keynote

The Power of Disagreement

Keywords: Inclusivity, Interaction and discourse in education, Philosophy of education, Practice-based research (methodology)
Interest group:
Chairperson: Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands

This lecture addresses the pressing challenge of social fragmentation and polarization in contemporary technologized democratic societies, and explores the role education can play as a counterforce. Central to the discussion is the question of how children and young people, especially when they hold divergent perspectives, can better understand one another, and what role teachers can play in facilitating this process.

The Power of Disagreement
Presenting Author: Jetske Strijbos, UHasselt, Belgium

This lecture addresses the pressing challenge of social fragmentation and polarization in contemporary technologized democratic societies, and explores the role education can play as a counterforce. Central to the discussion is the question of how children and young people, especially when they hold divergent perspectives, can better understand one another, and what role teachers can play in facilitating this process.

Session F 1

26 November 2025 14:45 - 16:15
Meeting Room 103
EAPRIL Cloud Spotlight Session
Primary education

Cloud 2 - Towards Effective Professional Development for Teachers: Insights and Innovations

Keywords: Higher education, Primary school education, Professional Development, Professional identity
Interest group: CLOUD 02 - Educators' professional development

In our fast-evolving society, education is becoming increasingly complex and interconnected. This poses challenges for students' learning but also for the continuous learning of educators and teachers. In light of these challenges, there is a growing need for the professional development of teachers, staff, and educators.In Cloud 2, we explore practice-based research that focus on the professional development of teachers in the workplace, or during training and coaching programs closely connected to their day-to-day professional activities. These interventions and programs aim to support educators' professional growth in terms of their identity, personal theories about learning and teaching, strategies, and approaches.In this Cloud 2 spotlight session, two researchers will present recent studies on professional development. In *Professionalising Teacher Educators in Using Speech Acts to Foster Teacher Identity Learning,*an innovative approach to supporting the professional growth of teachers by teacher educators is presented. *From Participation to Impact: Dynamics of Effective Professional Development Activities*, is offering new insights into what makes professional development effective for teachers. Following the presentations, a discussion will be facilitated on effective professional development and the role that teacher educators and school leaders play in this process.

Cloud 2 - Towards Effective Professional Development for Teachers: Insights and Innovations
Presenting Author: Anouke Bakx, Fontys University/Radboud University, Netherlands; **Co-Author:**Ankie van de Broek, Maastricht University/Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Henderijn Heldens, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Nanke Dokter, Fontys University of Applied Sciences, Netherlands

In our fast-evolving society, education is becoming increasingly complex and interconnected. This poses challenges for students' learning but also for the continuous learning of educators and teachers. In light of these challenges, there is a growing need for the professional development of teachers, staff, and educators.In Cloud 2, we explore practice-based research that focus on the professional development of teachers in the workplace, or during training and coaching programs closely connected to their day-to-day professional activities. These interventions and programs aim to support educators' professional

growth in terms of their identity, personal theories about learning and teaching, strategies, and approaches.In this Cloud 2 spotlight session, two researchers will present recent studies on professional development. In *Professionalising Teacher Educators in Using Speech Acts to Foster Teacher Identity Learning,*an innovative approach to supporting the professional growth of teachers by teacher educators is presented. *From Participation to Impact: Dynamics of Effective Professional Development Activities*, is offering new insights into what makes professional development effective for teachers. Following the presentations, a discussion will be facilitated on effective professional development and the role that teacher educators and school leaders play in this process.

Session F 2

26 November 2025 14:45 - 16:15
Lecture Room 201
EAPRIL Cloud Spotlight Session

Cloud 12 Spotlight session: Carousel of research results on leadership

Keywords: Collaborative Learning, Innovations in education, Leadership development, Leadership styles
Interest group: CLOUD 12 - Leadership in Education

In this Spotlight Session of Cloud 12 'Leadership in Education,' we will present a carousel of research results on the school leader's role in enhancing schools as learning organisations. Four teams of researchers will engage with the audience about their findings on the role of school leaders. After a brief introduction, the audience will be divided into four groups. In each group, researcher(s) will discuss the results of their specific study. After 20 minutes, all groups will rotate to the next researcher. This format ensures maximum interaction and a personal approach, providing ample opportunity to ask questions to the researchers.

Cloud 12 Spotlight session: Carousel of research results on leadership
Presenting Author: Anje Ros, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Loes van Wessum, Windesheim Zwolle, Netherlands; **Co-Author:**Marlon van de Put, Fontys Hogeschool Kind & Educatie, Netherlands; **Co-Author:**Annemarie Neeleman, Hogeschool Rotterdam, Netherlands; **Co-Author:**Anoeska Van den Noort, Wageningen Univerisity, Netherlands; **Co-Author:**Froukje Wartenberg, MOOZ, Netherlands; **Co-Author:**Etienne Van Nuland, CAOP, Netherlands

In this Spotlight Session of Cloud 12 'Leadership in Education,' we will present a carousel of research results on the school leader's role in enhancing schools as learning organisations. Four teams of researchers will engage with the audience about their findings on the role of school leaders. After a brief introduction, the audience will be divided into four groups. In each group, researcher(s) will discuss the results of their specific study. After 20 minutes, all groups will rotate to the next researcher. This format ensures maximum interaction and a personal approach, providing ample opportunity to ask questions to the researchers.

Session F 3

26 November 2025 14:45 - 16:15
Meeting Room 5
EAPRIL Cloud Spotlight Session
Secondary education

Cloud 8 - New directions in diversity and equality: Differentiation and the use of AI in Teaching

Keywords: Artificial intelligence, Diversity, Equality / Education for All, Professional Development
Interest group: CLOUD 08 - Diversity & equality in different contexts

The concerns of diversity and equality are critical aspects of education and other contexts of educational development, which is the focus of Cloud 8. Teachers should understand the concept of inclusion better to aid students in forming their knowledge about the world by taking into account their different backgrounds and needs. During their education and practice, they are encouraged to be more inclusive by using various methodologies, such as STEAM and integrating artificial intelligence (AI) into their teaching. However, they face significant challenges and barriers to applying these methodologies in various contexts. During this session, the first study will discuss the teachers' role in differentiation of education; the second one will depict how pre-service science teachers incorporate artificial intelligence into their lessons through a boundary crossing lens, and the third one will show how to combine hands-on experimentation with critical reflection and why we need to reframe science based on epistemic variety. This spotlight session will also provide the opportunity for participants to express their views on these topics and share their research and professional news.

Cloud 8 - New directions in diversity and equality: Differentiation and the use of AI in Teaching
Presenting Author: Sibel Inci, Kocaeli University, Turkiye; **Presenting Author:**Mirjam Heemskerk - van der Sprong, The Hague University of Applied Sciences, Netherlands; **Presenting Author:**Alfred Steinbach, University of Teacher Education St.Gallen (PHSG), Institute of Mathematics, Science and Technology Education, Switzerland; **Presenting Author:**Anthony Thorpe, University of Roehampton, United Kingdom; **Co-Author:**Milfed Ameziane, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Nick Gee, Birmingham City University, United Kingdom

The concerns of diversity and equality are critical aspects of education and other contexts of educational development, which is the focus of Cloud 8. Teachers should understand the concept of inclusion better to aid students in forming their knowledge about the world by taking into account their different backgrounds and needs. During their education and practice, they are encouraged to be more inclusive by using various methodologies, such as STEAM and integrating artificial intelligence (AI) into their teaching. However, they face significant challenges and barriers to applying these methodologies in various contexts. During this session, the first study will discuss the teachers' role in differentiation of education; the second one will depict how pre-service science teachers incorporate artificial intelligence into their lessons through a boundary crossing lens, and the third one will show how to combine hands-on experimentation with critical reflection and why we need to reframe science based on epistemic variety. This spotlight session will also provide the opportunity for participants to express their views on these topics and share their research and professional news.

Session F 4

26 November 2025 14:45 - 16:15
Meeting Room 6
Workshop
Higher education

AI as your smart (or stupid) sidekick in educational research

Keywords: Artificial intelligence, Authentic learning, Experts by experience, Self-efficacy
Interest group: CLOUD 08 - Diversity & equality in different contexts

In this interactive workshop, we explore how Artificial Intelligence (AI) can become your personal (but not too smart) research assistant in the field of education. From mundane time-consuming tasks to enhancing conceptual thinking, AI tools can free up mental space to focus on what really matters: critical reflection, creativity, and impact.Participants will engage in hands-on activities demonstrating how AI can support different phases of the research cycle: generating research questions, designing data collection tools, summarizing literature, supporting analysis, and even assisting in academic writing. We also reflect on the ethical and epistemological boundaries of AI use in academic work. This is a **learning-by-doing session**: expect prompts, role-play simulations, tool testing, and co-creation exercises. You'll walk out not only with ideas, but with concrete tools and ready-to-use templates to get started in your own research context. No prior tech skills required – curiosity and an open mind are enough.

AI as your smart (or stupid) sidekick in educational research
Presenting Author: Elke Emmers, Universiteit Hasselt, Belgium

In this interactive workshop, we explore how Artificial Intelligence (AI) can become your personal (but not too smart) research assistant in the field of education. From mundane time-consuming tasks to enhancing conceptual thinking, AI tools can free up mental space to focus on what really matters: critical reflection, creativity, and impact.Participants will engage in hands-on activities demonstrating how AI can support different phases of the research cycle: generating research questions, designing data collection tools, summarizing literature, supporting analysis, and even assisting in academic writing. We also reflect on the ethical and epistemological boundaries of AI use in academic work. This is a **learning-by-doing session**: expect prompts, role-play simulations, tool testing, and co-creation exercises. You'll walk out not only with ideas, but with concrete tools and ready-to-use templates to get started in your own research context. No prior tech skills required – curiosity and an open mind are enough.

Session F 5

26 November 2025 14:45 - 16:15
Meeting Room 3
EAPRIL Cloud Spotlight Session
Higher education

Dancing with dilemmas: Finding common ground on quality criteria within practice-based research

Keywords: Knowledge Building and Development, Organisation of educational research, Practice-based research (methodology), Research cooperation frameworks
Interest group: CLOUD 11 - Practice-based Research Methodology

Cloud 11 uses the EAPRIL spotlight sessions as an opportunity for participants to jointly explore dilemmas surrounding the quality of practice-based research and to learn together how to address these dilemmas. Practice-based research creates a shared space (a common boundary practice) for close collaboration between practitioners and researchers. Despite its potential, or even because of the boundary practices, practice-based research faces dilemmas related to rigor, relevance, and ethics. Cloud 11 has developed various methods to address these challenges, emphasizing the importance of open dialogue among stakeholders to achieve joint ownership and balance quality criteria. The session at EAPRIL Conference 2025 will introduce a new method based on the so-called constellation work, allowing participants to experience quality dilemmas inside out and to systemically map research projects, without all stakeholders present. Participants will explore underlying issues and gain insights into quality dilemmas, promoting mutual understanding and enhancing the integration of diverse perspectives on research quality.

Dancing with dilemmas: Finding common ground on quality criteria within practice-based research
Presenting Author: Lisette Munneke, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands; **Co-Author:**Kiran Tomas van den Brande, Aeres Group, Netherlands

Cloud 11 uses the EAPRIL spotlight sessions as an opportunity for participants to jointly explore dilemmas surrounding the quality of practice-based research and to learn together how to address these dilemmas. Practice-based research creates a shared space (a common boundary practice) for close collaboration between practitioners and researchers. Despite its potential, or even because of the boundary practices, practice-based research faces dilemmas related to rigor, relevance, and ethics. Cloud 11 has developed various methods to address these challenges, emphasizing the importance of open dialogue among stakeholders to achieve joint ownership and balance quality criteria. The session at EAPRIL Conference 2025 will introduce a new method based on the so-called constellation work, allowing participants to experience quality dilemmas inside out and to systemically map research projects, without all stakeholders present. Participants will explore underlying issues and gain insights into quality dilemmas, promoting mutual understanding and enhancing the integration of diverse perspectives on research quality.

Session F 6

26 November 2025 14:45 - 16:15
Meeting Room 101
Workshop
Primary education

Taking Action in Children's Councils: Turning Participation Sustainable, Inclusive and Impactful

Keywords: Authentic learning, Equality / Education for All, Organisational learning, School development
Interest group: CLOUD 08 - Diversity & equality in different contexts

This workshop results from the two-year GOTALK project (co-funded in the CERV program of the European Commission) on enhancing children's participation in pupils' councils by improving inclusiveness, sustainability, and policy impact. The presenters are action researchers and facilitators of participation processes in 6 schools and 2 youth centers (primary and secondary education, children aged 6 to 18). Methodologies used with pupils' councils on three levels are shared: methodologies to apply with pupil councils, methodologies targeting teacher teams and interventions fostering children participation in school procedures. The three levels support a whole school approach to participation. The workshop aims at reflecting about pupil participation in participants' organizations and inspires with real life materials from the action research. Researcher-facilitators will share honest experiences and struggles. Participants map the situation in their organizations and finish with concrete ways to improve pupil participation on the three levels. The workshop uses inspiring experiences, pictures and videos and during the session a 'living wall' is co-created with participants to give them a first experience with the tool so that it can be transferred to their organization. The 'living wall' is used to visualize a participatory process with real live materials to which all stakeholders can contribute.

Taking Action in Children's Councils: Turning Participation Sustainable, Inclusive and Impactful
Presenting Author: Anouk Van Der Wildt, Karel de Grote University of Applied Sciences and Arts, Belgium; **Co-Author:**Marie Van Roost, Karel de Grote University of Applied Sciences and Arts, Belgium; **Co-Author:**An Piessens, Karel de Grote University of Applied Sciences and Arts, Belgium

This workshop results from the two-year GOTALK project (co-funded in the CERV program of the European Commission) on enhancing children's participation in pupils' councils by improving inclusiveness, sustainability, and policy impact. The presenters are action researchers and facilitators of participation processes in 6 schools and 2 youth centers (primary and secondary education, children aged 6 to 18). Methodologies used with pupils' councils on three levels are shared: methodologies to apply with pupil councils, methodologies targeting teacher teams and interventions fostering children participation in school procedures. The three levels support a whole school approach to participation. The workshop aims at reflecting about pupil participation in participants' organizations and inspires with real life materials from the action research. Researcher-facilitators will share honest experiences and struggles. Participants map the situation in their organizations and finish with concrete ways to improve pupil participation on the three levels. The workshop uses inspiring experiences, pictures and videos and during the session a 'living wall' is co-created with participants to give them a first experience with the tool so that it can be transferred to their organization. The 'living wall' is used to visualize a participatory process with real live materials to which all stakeholders can contribute.

Session F 7

26 November 2025 14:45 - 16:15
Meeting Room 102
EAPRIL Cloud Spotlight Session

Exploring pedagogical approaches for incorporating a hopeful perspective in sustainability education

Keywords: Professional Development, Social entrepreneurship, Sustainability, Teaching approaches
Interest group: CLOUD 10 - Education for Sustainability

These Cloud 10 Spotlight Sessions, as part of the EAPRIL 2025 Conference, explore teacher education practices and research in the field of Education for Sustainability, with a particular focus on education which engages with hope. This might include teaching from a hopeful perspective, teaching to explore hope, or teaching where hope is hard to come by. The second Cloud 10 Spotlight Session explores pedagogical approaches to Education for Sustainability which enhance hopeful perspectives in relation to sustainability challenges through active, participatory, hands-on learning experiences. In this session, participants will actively participate in these pedagogical approaches with space for reflection on how pedagogical approaches deal with the concept of hope. For example, in relation to climate change or social justice, fostering a sense of hope may give learners more confidence about making meaningful changes. This workshop allows participants to experience how these approaches may impact their Education for Sustainability practices in different educational contexts.

Exploring pedagogical approaches for incorporating a hopeful perspective in sustainability education
Presenting Author: Eva Kuijpers, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Stella van der Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Benjamin Mallon, Dublin City University, Ireland

These Cloud 10 Spotlight Sessions, as part of the EAPRIL 2025 Conference, explore teacher education practices and research in the field of Education for Sustainability, with a particular focus on education which engages with hope. This might include teaching from a hopeful perspective, teaching to explore hope, or teaching where hope is hard to come by. The second Cloud 10 Spotlight Session explores pedagogical approaches to Education for Sustainability which enhance hopeful perspectives in relation to sustainability challenges through active, participatory, hands-on learning experiences. In this session, participants will actively participate in these pedagogical approaches with space for reflection on how pedagogical approaches deal with the concept of hope. For example, in relation to climate change or social justice, fostering a sense of hope may give learners more confidence about making meaningful changes. This workshop

allows participants to experience how these approaches may impact their Education for Sustainability practices in different educational contexts.

Session F 8

26 November 2025 14:45 - 16:15
Meeting Room 2
EAPRIL Cloud Spotlight Session

Spotlight session - Cloud 3: Change in education

Keywords: Creativity, Innovations in education, Leadership styles, Practice-based research (methodology)
Interest group:

Educational change is not just a technical process—it is emotional, relational, and often unpredictable. In this spotlight session, we introduce Cloud 3 – Change in Education, a growing international research community that explores the deeper dynamics of educational innovation.Initiated by Remco Coppoolse (Utrecht University of Applied Sciences) and Manon Joosten (Inholland University of Applied Sciences), Cloud 3 brings together researchers, doctoral candidates, and professionals who recognize that sustainable change requires more than tools, models, or templates. It demands approaches that acknowledge the micropolitics of institutions, the emotional climate of transformation, and the invisible beliefs and resistances that shape educational practice.In this interactive session, we will:Share examples of creative research practices and non-linear change approachesExplore how to work with uncertainty and emotional undercurrents in change processesInvite participants into a collaborative learning marketplace where experimentation, storytelling, and sensemaking come togetherJoin us if you are curious to co-create new ways of knowing, changing, and learning in education—starting not at the surface, but at the roots of transformation.

Spotlight session - Cloud 3: Change in education
Presenting Author: Manon Joosten, Inholland University of Applied Sciences, Netherlands; **Co-Author:**Remco Coppoolse, Utrecht University of applied science, Netherlands

Educational change is not just a technical process—it is emotional, relational, and often unpredictable. In this spotlight session, we introduce Cloud 3 – Change in Education, a growing international research community that explores the deeper dynamics of educational innovation.Initiated by Remco Coppoolse (Utrecht University of Applied Sciences) and Manon Joosten (Inholland University of Applied Sciences), Cloud 3 brings together researchers, doctoral candidates, and professionals who recognize that sustainable change requires more than tools, models, or templates. It demands approaches that acknowledge the micropolitics of institutions, the emotional climate of transformation, and the invisible beliefs and resistances that shape educational practice.In this interactive session, we will:Share examples of creative research practices and non-linear change approachesExplore how to work with uncertainty and emotional undercurrents in change processesInvite participants into a collaborative learning marketplace where experimentation, storytelling, and sensemaking come togetherJoin us if you are curious to co-create new ways of knowing, changing, and learning in education—starting not at the surface, but at the roots of transformation.

Session F 9

26 November 2025 14:45 - 16:15
Aula Prima
Symposium
Primary education

Teaching quality: Designing, adapting and comparing classroom observation tools across contexts

Keywords: Continuing professional development in Teachers, In-service Teacher Training, Professional Development, Professionalisation of educators, Teaching approaches, Training and Development
Interest group: CLOUD 02 - Educators' professional development
Chairperson: Hannah Bijlsma, Radboud University, Netherlands
Discussant: Patrick Schreyer, University of Kassel, Germany

Classroom observation instruments are important in evaluating and improving effective teaching practices. However, such instruments must be theoretically robust, empirically grounded, and contextually sensitive. This symposium brings together three practice-oriented studies that explore the development, adaptation, and use of classroom observation instruments in different European contexts.The first presentation introduces the systematic, multi-step development of a Flemish-Dutch classroom observation instrument for primary education, grounded in teacher effectiveness research and cognitive psychology. The second presentation employs the Delphi technique to adapt the German TEDS-Instruct to Norwegian primary mathematics and science lessons. Core elements and essential contextual adaptations are identified, offering a framework for future cross-contextual instrument transfer. The third presentation uses the Dutch Teaching Quality Monitor to evaluate teaching quality in the Netherlands. Findings are situated within an international comparative perspective across eight countries.Together, these studies advance our understanding of how observation instruments can meaningfully capture teaching quality across varied educational systems. The symposium invites participants to reflect on contextualization, comparability, and usability of observation tools in their educational setting(s).

Developing a classroom observation instrument for effective instruction in the Flemish-Dutch context
Presenting Author: Margo Vandenbroeck, Thomas More University of Applied Sciences, Belgium; **Co-Author:**Hannah Bijlsma, Radboud University, Netherlands; **Co-Author:**Milou de Smet, Thomas More Mechelen, Belgium

This research focuses on developing an observation instrument to measure effective instruction in Flemish (Belgium) and Dutch classrooms. Drawing on two complementary theoretical frameworks – teacher effectiveness research and cognitive psychology – we address two research questions: What observable indicators of effective instruction can be identified from these frameworks? And how can these indicators be integrated into a reliable and valid classroom observation instrument for the Flemish-Dutch primary educational context? Our methodology follows six systematic steps: (1) identifying characteristics of effective instruction, (2) analyzing existing classroom observation instruments, (3) developing an overview matrix of characteristics, its indicators and earlier operationalizations, (4) developing a Flemish-Dutch classroom observation instrument, (5) testing and refining the instrument through expert feedback, and (6) psychometrically validating the instrument. By the time the EAPRIL conference takes place, we will have completed the first four steps and will present a preliminary version of our Flemish-Dutch classroom observation instrument for effective instruction. After completing the final methodological steps, the resulting instrument will enhance educational practice by providing professionals with a research-based tool to assess effective instruction and guide improvement efforts. This will ultimately support teacher development and improve student learning outcomes through more effective classroom instruction.

Adapting and validating an observation instrument to new contexts: The case of TEDS-Instruct
Presenting Author: Bas Senden, Department of Teacher Education and School Research, University of Oslo, Norway

The current study investigates the extent to which the Teacher Education and Development Study-Instruct (TEDS-Instruct) observation instrument developed in Germany can be used to assess teaching quality in new contexts: Norwegian Grade 6 mathematics and science lessons. Evidence on the relevance and representativeness of the instrument in its new contexts were collected by eliciting the opinions of subject-matter experts using the Delphi Technique. The results indicate that while the core components of the instrument are relevant in the new contexts, specific adaptations are necessary to capture teaching quality in a more nuanced and meaningful way. Based on the findings, adaptions are made to the instrument and recommendations for further development are proposed. This study highlights the importance of taking into account contextual sensitivity when assessing teaching quality using observation instruments.

Do our lessons meet the aspects of effective teaching? The Dutch picture compared to other countries
Presenting Author: Hannah Bijlsma, Radboud University, Netherlands; **Co-Author:**Adrie Visscher, Univ. of Twente, Netherlands

In this study, we investigated the quality of teaching in the Dutch educational context using the Teaching Quality Monitor (TQM), an instrument developed to assess five key aspects of effective teaching: classroom climate, classroom management, instructional quality, differentiation, and the promotion of self-regulated learning. Data were collected from observers, teachers, and students. Observers rated classroom climate and classroom management positively, while instruction, differentiation, and self-regulation showed more room for improvement. Correlations between the three perspectives were modest. To contextualize the Dutch findings, international comparisons were made using studies from eight countries. Results highlight both shared challenges, (such as the differentiation of instruction), and culturally influenced differences in teaching quality. This study offers school leaders, teachers, and policy makers insights into how general and specific classroom quality challenges are and where professional development can be strengthened.

Session F 10

26 November 2025 14:45 - 16:15

Meeting Room 4
Case study
Higher education

Case Study: Navigating Practice and Engagement in the Digital Age

Keywords: 21st century learning, Authentic learning, Higher education, Initial Teacher Education (Pre-service), Philosophy of education, Professional identity, Well-being & engagement, Work environments
Interest group: CLOUD 01 - Teacher education, CLOUD 04 - Improving learning and well-being
Chairperson: Astrid Ottenheym - Vliegen, Radboud University, Netherlands

Preparing future teachers to navigate the open-ended landscape of "education in the digital age"
Keywords: 21st century learning, Authentic learning, Higher education, Initial Teacher Education (Pre-service)
Presenting Author: Robert Reuter, University of Luxembourg, Luxembourg; **Co-Author:**Chris Krier, University of Luxembourg, Luxembourg; **Co-Author:**Tom Hildgen, University of Luxembourg, Luxembourg; **Co-Author:**Gilbert Busana, University of Luxembourg, Luxembourg

This case study describes the rationale, implementation, and outcomes of the compulsory course "Education in the Digital Age", offered within initial teacher training at the University of Luxembourg. Recognizing the profound transformations caused by digitalization, the course aims to prepare future primary school (K-6) teachers not only with necessary digital skills but also with the mindset of authentic, self-directed, and inquiry-driven lifelong learners. Utilizing an "open-world game" metaphor, students are instructed to actively explore and gather knowledge from diverse sources, collaborate dynamically with peers and experts, document their learning journeys and submit a video file for the final assessment. Despite challenges such as fostering genuine student autonomy and addressing varying levels of digital literacy, the course has successfully built upon student motivation, engagement, and ownership of learning. We observe that embedding authentic, inquiry-based learning into teacher education empowers students to develop a mindset to confront current and future techno-pedagogical innovation. We also see that there is a need for structured scaffolding and targeted support to ensure all students thrive in complex open educational environments.

From doing practice to being engaged with practice in a new age; the work environment matters!
Keywords: Philosophy of education, Professional identity, Well-being & engagement, Work environments
Presenting Author: Famke van Lieshout, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Esther van den Hende-Wijnands MSc, Fontys University of Applied Science, Netherlands; **Co-Author:**Peter Glashouwer, Hogeschool Utrecht, Netherlands

This case study was a collaborative initiative between the Fontys and Utrecht Universities of Applied Sciences who were developing value-oriented work environments in healthcare education. The rationale behind the case was concern about the growing disconnect between organizational trends for technological and efficiency-driven education and a need for authentic, person-centred approaches that support student and educator growth and well-being. The Person-Centred Practice Curriculum Framework (PCCF) is being used to align multiple espoused and lived values whilst developing nursing and physiotherapy programs. Principles of participatory research are used to engage staff and students in reflective practices, with the use of tools such as Musework to address the not-knowing, discomfort and silence inherent in professional development. Starting with the exploration of shared values is paramount, alongside approaching curriculum development as social innovation and using creative methods for authentic professional identity formation. Preliminary conclusions are that cultivating value-based work environments strengthens individual and collective identities, better preparing healthcare professionals for a continuously evolving world.

Session G 1

26 November 2025 16:45 - 18:15
Aula Magna B
Roundtable
Higher education, Lifelong learning

Roundtable: Future-Oriented Pedagogies: From AI to Outdoor and Experiential Learning

Keywords: 21st century learning, Authentic learning, Communities of Learners and/or Practice, Creativity, Higher education, Innovations in education, Problem-based learning, Professionalisation of educators, STEM
Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 10 - Education for Sustainability
Chairperson: Gert Vanthournout, Belgium

A transversal, experiential, multi-media STEM learning material for everybody
Keywords: 21st century learning, Creativity, Problem-based learning, STEM
Presenting Author: Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland; **Co-Author:**Claudia Buser, St.Gallen University of Teacher Education (PHSG), Switzerland

In a world increasingly shaped by rapid technological, environmental, and societal change, STEM (science, technology, engineering and mathematics) education must evolve to prepare learners not only with subject-specific knowledge, but also with transversal competences. In this round table we discuss how research-based learning in STEM education can be promoted by using interactive materials. We place a strong emphasis on linking STEM education with transversal skills – particularly the 4 C's (creativity, communication, collaboration and critical thinking) – as well as integrating Education for Sustainable Development (ESD) and media literacy. Building on the Swiss national curriculum and current educational research, we discuss how learning materials need to be designed to be effective across all educational levels – from kindergarten to vocational training. Our goal is to develop interactive "STEM boxes" that are age-adapted, competence-orientated, and media-integrated. These materials aim to bridge the gap between curriculum objectives and everyday teaching practice, providing educators with concrete tools for implementing inquiry-based and interdisciplinary learning.

Fostering Authenticity and Disciplinary Dialogue in the Age of AI
Keywords: Authentic learning, Communities of Learners and/or Practice, Higher education, Innovations in education
Presenting Author: Sabrina Schmöckel, Paderborn University, Germany; **Presenting Author:**Hannah Sloane, Paderborn University, Germany

As AI reshapes academic practices and influences disciplinary norms and values, both students and lecturers encounter new challenges in maintaining authenticity and coherence within their disciplines. While experienced researchers often adapt fluidly, (PhD) students may struggle with navigating implicit expectations around AI use in research and learning. Grounded in theories of disciplinary cultures and the *Decoding the Disciplines* paradigm, our programmes aim to make tacit disciplinary assumptions explicit, fostering reflection on and discussions about the influence of AI on disciplinary practices across academic roles.This paper explores: 1) to what extent and in what ways AI is transforming disciplinary practices, norms, and values, and 2) how lecturers and (PhD) students might communicate and integrate these changes constructively into teaching and learning. We analyse interviews and reflections from both students and lecturers using the coding software Atlas.ti and qualitative content analysis. Our findings underscore the value of transparency, shared reflection, and open dialogue in building AI-aware educational relationships. The tools and workshops we have developed promote critical engagement, support enculturation into academic communities, and enable the creation of meaningful, informed approaches to integrating AI into higher education.

Outdoor Learning in Higher Education: Promoting Future Skills by University Didactics
Keywords: 21st century learning, Authentic learning, Higher education, Professionalisation of educators
Presenting Author: Janne Fengler, University of Luxembourg, Luxembourg

Both the OECD (2019) and UNESCO (2015) consider the promotion of transformative / future skills to be an essential prerequisite for successfully overcoming the challenges of the 21st century. Outdoor learning (OL), encompassing out of school and action-oriented learning, has proven to be conducive to such skills. Pursuing their so-called third mission, i.e. seeking to create added value for society, higher education (HE) institutions can play an important role in the desired transformation process. In contrast to primary and secondary education though, OL has so far only been used selectively in higher education, there are currently no formal frameworks or guidelines. The central research questions of this project, co-funded by the European Commission (11/2024–10/2027), refer to1. practices related to OL in HE in selected European countries2. ways to support HE teachers in OL practices in different disciplines An exploratory multimodal mixed-methods approach is used to capture existing OL practice (European HE teachers: online survey N ≥ 7000, in-depth interviews N ≥ 50). Based on this, prototype guidelines for good practice will be developed, tested, evaluated, finetuned and made available in a network of like-minded teaching staff.

Session G 2

26 November 2025 16:45 - 18:15

Aula Magna A
Roundtable
Higher education, Secondary education, Workplace learning

Roundtable: Expansive and Transdisciplinary Learning for School Development

Keywords: Collaborative Learning, Higher education, Leadership development, Learning styles / approaches, Lifelong Learning, Practice-based research (methodology), School development, Secondary school education, Stakeholder partnerships, Workplace learning
Interest group: CLOUD 02 - Educators' professional development, CLOUD 10 - Education for Sustainability, CLOUD 12 - Leadership in Education
Chairperson: Hans Frederik, Vrije Universiteit Amsterdam, Netherlands

Expansive learning: Facilitating new ways of thinking and doing at three training schools
Keywords: Collaborative Learning, Lifelong Learning, School development, Workplace learning
Presenting Author: Rene Streutker, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**Siebrich de Vries, NHL Stenden University of Applied Sciences, Netherlands

In this study, Change Labs (CLs) are used by three different training schools (secondary and vocational education) to seek ways to strengthen the development of the agency of their students. CLs are formative interventions based on the principles of Cultural Historical Activity Theory (CHAT) and are a well-researched approach to support expansive learning. However, how to facilitate them is less well known. In this project we investigate what we can learn from the facilitation of the three CLs. The central question is: *How and to what extent do the facilitators apply CHAT-principles to strengthen expansive learning in the Change Labs of the three training schools and what concerns them in this?* Approximately six sessions were held at each CL in the school year 2023-2024. Transcripts of these sessions and of the reflections of the facilitators were and still are deductively analyzed. During the analysis, a model per CL is constructed showing the development of facilitators in guiding, coaching and thinking and how this supports expansive learning in the three different CLs. By using cross-case synthesis we seek transferable ways of facilitation, informing the implementation of CLs in the future.

Development of the school as a learning organization
Keywords: Leadership development, Practice-based research (methodology), School development, Secondary school education
Presenting Author: Willem van den Kieboom, Merletcollege, Netherlands; **Co-Author:**Anje Ros, Fontys University of Applied Sciences, Netherlands

Schools face complex challenges, such as dealing with teacher shortages, inequality of opportunities, and promoting the basic quality of teaching. To address these challenges, it is necessary for teachers to experience time, space, and a learning culture, as well as ownership in innovation. The model of the learning organization (Kools, 2020) is helpful in this regard because schools as learning organizations are characterized by teachers' feelings of collective efficacy and job satisfaction, and innovation capacity. However, little is known about how schools can further develop into learning organizations. This study explores how a school leader, together with teachers, can develop and implement interventions to promote the school as a learning organization.

Enhancing students', teachers' and societal partners' agency in transdisciplinary learning contexts
Keywords: Higher education, Learning styles / approaches, Lifelong Learning, Stakeholder partnerships
Presenting Author: Mirthe Van den Hee, Wageningen University & Research, Netherlands; **Co-Author:**Janine Haenen, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Janina den Hertog, Saxion University of Aplied Sciences, Netherlands; **Co-Author:**Weiwei Liu, Wageningen University & Research, Netherlands

As a response to grand societal challenges, educational institutions are increasingly experimenting with transdisciplinary learning approaches that integrate academic and non-academic knowledge and involve societal partners as co-creators. This study investigates how agency is understood and enhanced among students, teachers, and societal partners within transdisciplinary learning contexts. While student-, teacher-, and professional agency have been studied individually, their interrelations in transdisciplinary settings remain underexplored. This research seeks to understand how students', teachers' and societal partners' agency is enhanced and how it contributes to this learning. Addressing this gap, we pose the central research question: What enhances students', teachers', and societal partners' agency within transdisciplinary learning contexts? This study applies a multiple-case study and educational design research approach to examine participants' conceptualizations and experiences of agency through focus groups, followed by co-creation sessions aimed at identifying and designing facilitative elements.

Session G 3

26 November 2025 16:45 - 18:15
Aula Magna D
Roundtable
Higher education, Workplace learning

Roundtable: Building Teacher Educators' Capacities Through Feedback, Reflection, and Assessment

Keywords: Assessment and evaluation, Continuing professional development in Teachers, Experts by experience, Higher education, Inquiry learning, Professionalisation of educators, Workplace learning
Interest group: CLOUD 02 - Educators' professional development
Chairperson: Mariola Gremmen, HAN University of Applied Sciences, Netherlands

Teacher feedback literacy as a competence
Keywords: Assessment and evaluation, Continuing professional development in Teachers, Higher education, Professionalisation of educators
Presenting Author: Sylvia Schouwenaars, HZ University of Applied Sciences, Netherlands; **Co-Author:**Henderijn Heldens, Zuyd Hogeschool, Netherlands; **Co-Author:**Martijn Leenknecht, HZ University of Applied Sciences, Netherlands; **Co-Author:**Martje Köhlen, Inholland University of Applied Sciences, Netherlands

Effective feedback processes in higher education are a shared responsibility between teachers and students. Teachers are responsible for designing feedback processes and guiding students throughout, thereby enabling them to take on an active role.
Boud and Dawson developed an empirically derived competency framework to describe what teachers do to foster effective feedback processes. This framework served as a valuable foundation for developing a professional development framework to support the enhancement of teacher feedback literacy (TFL) in Dutch higher education.

With this aim, practitioners and researchers from the Dutch Platform Learning from Assessment (in Dutch:*Platform Leren van Toetsen*) established a small professional learning community (PLC). This group adopted a step-by-step approach to design a practical TFL model for use in teacher professional development.
During the presentation, the practical TFL model and its indicators will be presented, accompanied by examples of concrete teacher interventions and learning activities.

Fold & Reflect Card: A Reflective Tool for Enhancing Teacher Educators' Inquiry-Based Competence
Keywords: Experts by experience, Higher education, Inquiry learning, Professionalisation of educators
Presenting Author: Nanke Dokter, Fontys University of Applied Sciences, Netherlands

Fontys University of Applied Sciences encourages student teachers to develop their inquiry-based competence—essential for navigating today's dynamic educational landscape. Teacher educators play a key role as role models, expected to embody and demonstrate the inquiry-based practices they aim to teach.To support awareness and development of this competence, we developed the Fold & Reflect Card: a reflective tool used by both teacher educators and student teachers. Each reflects on how the educator's inquiry-based competence is made visible in practice, using statements that are based on new learning outcomes. These reflections are then compared and discussed, sparking dialogue about the meaning of the competence and identifying opportunities for growth on both sides. Initial evaluations with bachelor's and master's teacher educators have shown promising results. This ongoing research addresses two research questions: To what extent does the Fold & Reflect Card raise awareness among teacher educators of their inquiry-based competence? Does the card help student teachers to understand what inquiry-based competence entails? From a scientific perspective, the project contributes to the theoretical understanding of teacher educators' modeling roles. Practically, it offers a valuable and accessible tool for higher education professionals to reflect on, develop, and showcase their inquiry-based competence.

PhD project: "Using assessment information to foster teachers' professional learning"
Keywords: Assessment and evaluation, Continuing professional development in Teachers, Professionalisation of educators, Workplace learning
Presenting Author: Linda Jakobs, HAN University of Applied Sciences (UAS), Netherlands; **Co-Author:**Tamara Schilt-Mol, Hogeschool van Arnhem en Nijmegen, Netherlands

This research aims to facilitate teachers' professional learning, through the use of information from assessments. We will conduct four studies to find out how teachers can best use this information for their own learning and make recommendations for teaching practice.Teacher professionalism is crucial to the quality of education. This includes teachers' ability to direct their own professional learning. The evaluation function of assessment is potentially conducive to this, but it is little used. To professionalize teachers in the use of information from assessment for their own professional learning, awareness of beliefs and impact of their actions on the quality of education is needed. In a design-oriented study, initiatives are developed and explored (using literature review, audio diary studies, retrospective interviews and case studies) that lead to the use of information to foster professional learning.

Session G 4

26 November 2025 16:45 - 18:15
Meeting Room 103
Workshop
Vocational education

Professional Doctors @Work

Keywords: Practice-based research (methodology), Problem Solving, Secondary school education, Vocational education
Interest group: CLOUD 11 - Practice-based Research Methodology

Three Dutch Professional Doctorate (PD) Candidates in the domain Learning & Professional Development will present three different cases in which they are actively seeking feedback from EAPRIL participants to refine them further. All three candidates are in the second year of a pilot PD course in the Netherlands. In line with the learning outcomes of the PD, all three cases make use of action research in various educational contexts to create change in practice. One concerns the creation of a role description for Research leads in VET (practoren). Another concerns the implementation of Collaborative Inquiry-Based Working in secondary education. The third concerns a conceptual model that explores Collaborative Learning amongst teachers in secondary education. The participants will, after a short introduction about the PD, be encouraged to choose one of three cases and assist in its further development of refinement by getting actively involved.

Professional Doctors @Work
Presenting Author: Karin van de Lagemaat, Amsterdam University of Applied Sciences (AUAS), Netherlands; **Co-Author:**Sara Albone, Aeres Hogeschool Wageningen, Netherlands; **Co-Author:**Emely Meijerink, Stichting Carmelcollege, Netherlands

Three Dutch Professional Doctorate (PD) Candidates in the domain Learning & Professional Development will present three different cases in which they are actively seeking feedback from EAPRIL participants to refine them further. All three candidates are in the second year of a pilot PD course in the Netherlands. In line with the learning outcomes of the PD, all three cases make use of action research in various educational contexts to create change in practice. One concerns the creation of a role description for Research leads in VET (practoren). Another concerns the implementation of Collaborative Inquiry-Based Working in secondary education. The third concerns a conceptual model that explores Collaborative Learning amongst teachers in secondary education. The participants will, after a short introduction about the PD, be encouraged to choose one of three cases and assist in its further development of refinement by getting actively involved.

Session G 5

26 November 2025 16:45 - 18:15
Meeting Room 6
Workshop
Vocational education

Meaningful triangular conversations within hybrid learning environments in VET

Keywords: Interaction and discourse in education, Social interaction, Vocational education, Workplace learning
Interest group:

This workshop focuses on interaction strategies within triangular conversations in hybrid learning environments (HLOs), where students, teachers, and workplace coaches collaborate at the boundary of school and work in Vocational Education and Training (VET, EQF 1–4). While HLOs are designed to bridge theory and practice, little is known about how interaction in triangular conversations contributes to students' professional development. In our research, we used three complementary perspectives—directive vs. empowering interaction, interpersonal communication, and verbal/non-verbal cues- to explore this interaction. Participants of our workshop will engage in a hands-on analysis of a video-recorded triangular conversation using a structured worksheet based on these perspectives. In small groups, they will identify key interaction moments and explore how different perspectives shape the interpretation of student development. The session concludes with a plenary discussion on practical implications and methodological approaches for studying and enhancing interaction in HLOs. Participants will reflect on how the worksheet can be used as a practical tool to support meaningful triangular conversations in their own practice.

Meaningful triangular conversations within hybrid learning environments in VET
Presenting Author: Kathinka van Doesum, mboRijnland - Practoraat Research Lab, Netherlands; **Presenting Author:**Petra Poelmans, Scalda, Netherlands; **Co-Author:**Franck Blokhuis, MBO Amersfoort (Secondary Vocational Education and Training institute), Netherlands

This workshop focuses on interaction strategies within triangular conversations in hybrid learning environments (HLOs), where students, teachers, and workplace coaches collaborate at the boundary of school and work in Vocational Education and Training (VET, EQF 1–4). While HLOs are designed to bridge theory and practice, little is known about how interaction in triangular conversations contributes to students' professional development. In our research, we used three complementary perspectives—directive vs. empowering interaction, interpersonal communication, and verbal/non-verbal cues- to explore this interaction. Participants of our workshop will engage in a hands-on analysis of a video-recorded triangular conversation using a structured worksheet based on these perspectives. In small groups, they will identify key interaction moments and explore how different perspectives shape the interpretation of student development. The session concludes with a plenary discussion on practical implications and methodological approaches for studying and enhancing interaction in HLOs. Participants will reflect on how the worksheet can be used as a practical tool to support meaningful triangular conversations in their own practice.

Session G 6

26 November 2025 16:45 - 18:15
Meeting Room 102
Workshop
Primary education

Inclusive education: a value-based approach to deepen conversations

Keywords: Communities of Learners and/or Practice, Diversity, Equality / Education for All, Inclusivity
Interest group: CLOUD 08 - Diversity & equality in different contexts

This workshop is about the importance of conducting a value-based dialogue in order to create a deeper meaning-making of themes around inclusive education. Inclusive education is a widely discussed theme that comes with different images. In this interactive session participants will give word to their understanding of inclusive education by providing input from their own experiences and expertise. We will deepen the meaning making with theory and connect it to research results from a professional doctorate trajectory in Dutch primary education. The method used in the workshop is the value-based dialogue itself. In addition, information is collected, shared and valued by means of Padlets.Workshop leaders;Bert van Velthooven. Professional Doctorate candidate “developing inclusive education together”, Marnix Academy, the Netherlands. Wouter Schenke. Professor of applied sciences in value-based leadership, Penta Nova, the Netherlands.

Inclusive education: a value-based approach to deepen conversations
Presenting Author: Wouter Schenke, Penta Nova, Netherlands; **Co-Author:**Bert van Velthooven, Marnix Academie, university of applied siences, Utrecht, Netherlands

This workshop is about the importance of conducting a value-based dialogue in order to create a deeper meaning-making of themes around inclusive education. Inclusive education is a widely discussed theme that comes with different images. In this interactive session participants will give word to their understanding of inclusive education by providing input from their own experiences and expertise. We will deepen the meaning making with theory and connect it to research

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Session G 7

26 November 2025 16:45 - 18:15
Meeting Room 101
Workshop
Higher education

Words in Action: Exploring Language and Inclusion Through Arts-Based Educational Research

Keywords: Creativity, Equality / Education for All, Higher education, Professionalisation of educators
Interest group: CLOUD 08 - Diversity & equality in different contexts

This workshop explores the impact of language on educational thinking and practice, aligning with the conference theme “Words and Deeds.” Focusing on terms like “vulnerable learners” and “underrepresented groups,” participants will critically examine how such labels shape perceptions and behaviors in education. Using an arts-based research (ABR) approach, the workshop facilitates creative inquiry into the connotations of commonly used educational terms through visual and poetic methods such as drawing, collage, and word-mapping. Participants will co-create a conceptual lexicon for inclusive language in education. By engaging both cognitively and sensorially, the workshop enhances awareness of language dynamics and supports inclusive practices in educational contexts.

Words in Action: Exploring Language and Inclusion Through Arts-Based Educational Research
Presenting Author: Reinhilde Pulinx, University College Leuven -Limburg, Belgium; **Presenting Author:**Elke Emmers, Universiteit Hasselt, Belgium; **Co-Author:**Jetske Strijbos, UHasselt, Belgium; **Co-Author:**Liesbet Saenen, Hasselt University, Belgium; **Co-Author:**Luciano Pirson, Hasselt University, Belgium; **Co-Author:**Katrien Hermans, Hasselt University, Belgium; **Co-Author:**Ruth Stevens, Hasselt University, Belgium; **Co-Author:**Lindsay Everaert, Hasselt University, Belgium; **Co-Author:**Sanne Balendonck, UHasselt, Belgium

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Session G 8

26 November 2025 16:45 - 18:15
Meeting Room 5
Workshop
Higher education

Weaving a Shared Vision on Quality of Teacher Education: Storytelling as a Transformative Tool

Keywords: Collaborative Learning, Deep-level and profound learning, Organisational learning, Professional identity
Interest group: CLOUD 01 - Teacher education

High-quality teacher education programmes rely on a collective understanding of what 'quality' means in practice. Yet in many institutions that vision remains fragmented, implicit, or owned by only a few stakeholders. This interactive workshop introduces storytelling as a research-informed strategy for helping teacher educators surface tacit beliefs, negotiate diverse perspectives, and co-construct a robust, shared vision of quality in initial teacher training.Storytelling - 'the study of the ways humans experience the world' through narrative (Connelly & Clandinin, 1990) - is more than an engaging ice-breaker. As a form of narrative inquiry it externalises experiences, makes hidden values discussable, and invites collective meaning-making. Research shows that well-crafted stories align hearts and minds more effectively than data alone (Denning, 2011), while studies in teacher professional development demonstrate that sharing practice-based stories deepens reflection and agency (Rosen, 2018).Participants of this workshop will experience storytelling elements such as 'The Protoganist', 'How the Adventure Began' and 'The Man on the Moon'. Participants will then adapt these techniques to their own contexts. In the end, participants will leave with a draft 'personal quality narrative', some guidelines for facilitating sessions and ideas for an action plan to sustain the process back home.

Weaving a Shared Vision on Quality of Teacher Education: Storytelling as a Transformative Tool
Presenting Author: Bruno Oldeboom, Windesheim University of Applied Sciences, Netherlands; **Presenting Author:**Marie-Jeanne Meijer, Windesheim university of applied sciences, Netherlands

High-quality teacher education programmes rely on a collective understanding of what 'quality' means in practice. Yet in many institutions that vision remains fragmented, implicit, or owned by only a few stakeholders. This interactive workshop introduces storytelling as a research-informed strategy for helping teacher educators surface tacit beliefs, negotiate diverse perspectives, and co-construct a robust, shared vision of quality in initial teacher training.Storytelling - 'the study of the ways humans experience the world' through narrative (Connelly & Clandinin, 1990) - is more than an engaging ice-breaker. As a form of narrative inquiry it externalises experiences, makes hidden values discussable, and invites collective meaning-making. Research shows that well-crafted stories align hearts and minds more effectively than data alone (Denning, 2011), while studies in teacher professional development demonstrate that sharing practice-based stories deepens reflection and agency (Rosen, 2018).Participants of this workshop will experience storytelling elements such as 'The Protoganist', 'How the Adventure Began' and 'The Man on the Moon'. Participants will then adapt these techniques to their own contexts. In the end, participants will leave with a draft 'personal quality narrative', some guidelines for facilitating sessions and ideas for an action plan to sustain the process back home.

Session G 9

26 November 2025 16:45 - 18:15
Meeting Room 4
EAPRIL Cloud Spotlight Session

Cloud 10 - Sharing hopeful approaches within Education for Sustainability

Keywords: Professional Development, Social entrepreneurship, Sustainability, Teaching approaches
Interest group: CLOUD 10 - Education for Sustainability

'Cloud 10: Education for Sustainability' aims to be a platform for project leaders and practitioner-researchers who are interested in education and learning in the field of sustainable development. This networks addresses, among other things, projects and practice-based research related to Social Entrepreneurship Education, Education for Sustainable Development and the integration of SDGs in curricula. These Cloud 10 Spotlight Sessions, as part of the EAPRIL 2025 Conference, explore teacher education practices and research in the field of Education for Sustainability, with a particular focus on education which engages with hope. This might include teaching from a hopeful perspective, teaching to explore hope, or teaching where hope is hard to come by.

Cloud 10 - Sharing hopeful approaches within Education for Sustainability
Presenting Author: Eva Kuijpers, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Benjamin Mallon, Dublin City University, Ireland; **Co-Author:**Stella van der Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands

'Cloud 10: Education for Sustainability' aims to be a platform for project leaders and practitioner-researchers who are interested in education and learning in the field of sustainable development. This networks addresses, among other things, projects and practice-based research related to Social Entrepreneurship Education, Education for Sustainable Development and the integration of SDGs in curricula. These Cloud 10 Spotlight Sessions, as part of the EAPRIL 2025 Conference, explore teacher education practices and research in the field of Education for Sustainability, with a particular focus on education which engages with hope. This might include teaching from a hopeful perspective, teaching to explore hope, or teaching where hope is hard to come by.

Session G 10

26 November 2025 16:45 - 18:15
Meeting Room 2
Case study
Early childhood education, Higher education

Case Study: Building Knowledge and Agency in Teacher Development

Keywords: Authentic learning, Curricula, Early childhood education, Geography education, Initial Teacher Education (Pre-service), Knowledge Building and Development, Professional Development, Teacher thinking
Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development
Chairperson: Maria Dardanou, University of Tromsoe, Norway

Stimulating teacher agency in developing a knowledge-rich curriculum: a preschool case study
Keywords: Curricula, Early childhood education, Professional Development, Teacher thinking
Presenting Author: Michiel Wils, Thomas More, Belgium; **Co-Author:**Maxime Bultheel, Thomas More, Belgium; **Co-Author:**Claudio Vanhees, Thomas More University College, Belgium; **Co-Author:**Jasper Nijlunsing, Thomas More University College, Belgium; **Co-Author:**Tim Surma, Thomas More University College, Belgium

With the rise of AI, the role of knowledge in the curriculum is again subject for debate. At the same time, recent studies have shown the importance of a knowledge-rich curriculum, not only for acquiring complex skills, but also for equitable opportunities.This case study describes the results of an implementation project (ELIAS) that responds to the growing recognition of the importance of knowledge in early education. It comprises a three-year professional development programme that explores the development and implementation of a knowledge-rich curriculum in three preschools in Antwerp, Belgium. The PD-programme aimed to strengthen teachers in effective teaching practices and enhance their agency in curriculum development, underpinned by the principles of a knowledge-rich curriculum (content-richness, coherence, and clarity). Both teachers and school leaders participated in a blended programme, combining an online training course with FTFPD sessions and collaborative networks. The first results from in-depth interviews and focus groups show both benefits and challenges. Teachers considered the programme highly valuable and experienced increased know-how regarding curriculum development, the importance of coherence, and the risk of overload. However, the participants also highlighted some key challenges, including time constraints, the labour-intensive nature of curriculum design, and the difficulty of ensuring full-team participation.

Place-based teacher education field school: design, implementation, & knowledge buiding with alumni
Keywords: Authentic learning, Geography education, Initial Teacher Education (Pre-service), Knowledge Building and Development
Presenting Author: Paula Waatainen, Vancouver Island University, Canada; **Co-Author:**Teresa Farrell, Vancouver Island University, Canada

In 2018, we – two Canadian teacher-educators – designed and implemented a three-day place-based education (PBE) field school, taking education students to a remote, historic canyon, where we explored the landscape and human history with Indigenous Elders, a historian, a retired teacher, and a geographer. We redesigned aspects of the field school for a second cohort of education students in 2019, inviting an archaeologist and in-service teachers, and conducting a research study on student perceptions of the value of the field school. In 2025, we conducted a follow-up study with alumni of these field schools using surveys and interviews. Building on the relationship we had previously built with them, we then invited our alumni to bring us to places in their communities where they had, or wanted to, do PBE with their students. In those places, we engaged in knowledge building as colleagues, to support both their practice and ours. Preliminary analysis of our 2025 study indicates that the field schools have had a lasting impact on our alumni interest in engaging students in authentic learning in *place,* but that school location, administrative support, and time impacted how much PBE they do.

Session G 11

26 November 2025 16:45 - 18:15
Lecture Room 201
Present & Discuss
Higher education, Secondary education

Present & Discuss: Generative AI in Education: Student Experiences, Integrity, and Pedagogical Innovation

Keywords: 21st century learning, Artificial intelligence, Doctoral education (PhD education), Equality / Education for All, Language Education, Practice-based research (methodology), Secondary school education, Teaching approaches, Writing
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Christina Misailidou, National and Kapodistrian University of Athens, Greece

"No one dares to admit they are using it" – Students' experiences with chatbots in school
Keywords: 21st century learning, Artificial intelligence, Equality / Education for All, Practice-based research (methodology)
Presenting Author: Ulrika Bergmark, Luleå University of Technology, Sweden; **Presenting Author:**Magdalena Norén, Piteå Municipality, Sweden; **Presenting Author:**Kristina Viklund, Piteå Municipality, Sweden; **Presenting Author:**Linda Wikström, Piteå Municipality, Sweden; **Co-Author:**Caroline Graeske, Luleå University of Technology, Sweden; **Co-Author:**Maria Karlsson, Piteå Municipality, Sweden; **Co-Author:**Sara Viklund, Umeå University, Sweden

Chatbots are becoming increasingly common in schools, reshaping education and teaching. The aim of this study is to deepen the understanding of students' perspectives on how generative AI, specifically chatbots (e.g., ChatGPT), affects teaching and learning as well as challenges and opportunities students experience. A total of 34 Swedish secondary and upper secondary school students participated in the study, where group interviews were used for data collection. Reflexive thematic analysis was used to process the data. Four themes were identified: *Boundaries between cheating and support*, *Supportive tool*, *Assessment and classroom processes* and *Balancing between trust and mistrust*. The identified challenges primarily concern cheating, the lack of guidelines on chatbot use and the unreliability of chatbots. The potential benefits include their role as a support tool and assistant for students. Based on students' experiences, both teachers and students are aware of chatbots in schools, yet it remains a topic that is rarely discussed openly. The study highlights the importance of fostering dialogue between teachers and students to explore the possibilities of chatbots in education.

AI in education – from cheating to hope for the future
Keywords: 21st century learning, Artificial intelligence, Equality / Education for All, Practice-based research (methodology)
Presenting Author: Sara Viklund, Umeå University, Sweden; **Presenting Author:**Kristina Viklund, Piteå Municipality, Sweden; **Presenting Author:**Maria Karlsson, Piteå Municipality, Sweden; **Co-Author:**Caroline Graeske, Luleå University of Technology, Sweden; **Co-Author:**Ulrika Bergmark, Luleå University of Technology, Sweden; **Co-Author:**Johanna Jonsson, Piteå Municipality, Sweden; **Co-Author:**Linda Wikström, Piteå Municipality, Sweden

Artificial intelligence (AI) and chatbots have become increasingly common in teachers' practice. The urgency became even more acute when the chatbot ChatGPT was launched in November 2022, changing the conditions for teaching and learning in schools. The purpose of the study is to deepen the understanding of how AI and specifically chatbots (e.g., ChatGPT) affect teaching, the teacher's role, and students' learning, as well as the challenges and opportunities that teachers experience. The study involved 15 Swedish teachers from secondary and upper secondary school in focus group interviews on two occasions. These interviews explored experiences with AI and ChatGPT, students' use of ChatGPT, and how ChatGPT has impacted teaching, the teacher's role and the teaching subject. The analysis resulted in five roles that describe teachers' teaching and approaches: The controller, the explorer, the democrat, the observer and the philosopher. Teachers can adopt different roles and move between them depending on the situation. The results show that it is crucial for teachers to move beyond the idea of cheating to also explore the possibilities with AI, while being aware of and managing the problems that may arise when chatbots enter the school environment.

Shaping L2 Feedback Culture with GenAI: A Case Study of Chinese Doctoral Students in Germany
Keywords: Artificial intelligence, Doctoral education (PhD education), Language Education, Writing
Presenting Author: Minyue Wu, University of Göttingen, Germany

This study investigates the experiences of Chinese doctoral students based in Germany, focusing on their sense of agency in L2 academic writing, perceptions of supervisory roles, and engagement with feedback culture in the context of generative AI (GenAI) technologies. It explores how authentic supervisory guidance can be preserved while fostering effective human-AI collaboration in international doctoral education. The research addresses three central questions: (1) How do Chinese doctoral students perceive their agency and the role of supervisors when using GenAI for writing feedback? (2) How does GenAI adoption shape the development of feedback culture within supervisory relationships? (3) What distinct capabilities and roles are attributed to human supervisors compared to GenAI in providing writing feedback? Data were collected through focus group discussions and examples of participants' GenAI prompts, and analyzed using grounded theory methodology. Findings reveal a complex interplay between student agency in L2 academic writing, their engagement with

GenAI-enhanced feedback and its affordances for writing support, and supervisory feedback and roles within the German higher education setting. The study highlights the complementary strengths of students, GenAI, and supervisors, offering practical insights for support strategies that enhance student agency while preserving meaningful human mentoring in international doctoral supervision.

Using AI to facilitate lesson design and making English lessons more task-based.
Keywords: Artificial intelligence, Language Education, Secondary school education, Teaching approaches
Presenting Author: Willem Boom, Driestar Educatief University for Teacher Education, Netherlands; **Co-Author:**Cornée Van der Wind-Ferreira, Driestar University for Teacher Education, Netherlands; **Co-Author:**Piet Murre, Driestar Educatief University for Teacher Education, Netherlands

Preparing effective lessons can be time-consuming, especially when searching for the right materials. Teaching foreign language lessons is no exception, particularly where finding appropriate materials for listening practice is concerned. The purpose of this study was to explore how artificial intelligence (AI) could facilitate reducing preparation time for teachers.One of the most promising language teaching pedagogies is Task-Based Language Teaching (TBLT). This study set out by listing principles for teaching listening from language teaching research and applied these to the Task-Based listening lessons. Subsequently, this study experimented with multiple rounds of AI prompts (based on these principles), the output of which was then tested and compared to specific coursebook material. The findings suggest that AI can be used to write useful lesson plans and create corresponding materials. In comparison with the coursebook material, lessons created with AI were perceived as more meaningful. These lessons also allowed for more exposure to vocabulary and more time for practicing listening. Challenges of AI include that mistakes made by AI need to be corrected, which is still time-consuming. Another drawback of AI is that some of its most useful tools are currently expensive. This may widen the gap between privileged and disadvantaged communities.

Session G 12

26 November 2025 16:45 - 18:15
Aula Magna C
Roundtable
Higher education, Primary education, Secondary education

Roundtable: Classroom Practices, Diversity, and Teacher Identity in Educational Innovation

Keywords: Collaborative Learning, Diversity, Game-based learning / Gamification, Primary school education, Professional Development, Professional identity, Professionalisation of educators, Secondary school education
Interest group: CLOUD 02 - Educators' professional development, CLOUD 05 - HRD & Workplace learning
Chairperson: Yasuhisa Kato, Japan

EmpowerED: effective classroom management – Game on!
Keywords: Game-based learning / Gamification, Primary school education, Professional Development, Professionalisation of educators
Presenting Author: Kristel Stinckens, PXL University College, Belgium; **Presenting Author:**Claudia Lento, Hogeschool PXL, Belgium

The “EmpowerED: effective classroom management - Game On” research project focuses on the following main research question : *How can a serious game broaden and strengthen teachers' evidence-informed classroom management techniques and reflection skills in the face of challenging student behavior in primary schools?*The insights we gained from the practice research EmpowerED taught us that strengthening teachers' relationship and interaction competences requires a gradual approach. There is still considerable need for awareness-raising in terms of classroom and behavior management. In this new research we plan to develop a serious game in which teachers can discuss knowledge and skills about effective classroom management in a small group (under supervision), subsequently strengthen their own actions in the classroom and spread their insights widely among colleagues. We will use the 5 phases of the Design Thinking-methodology in close cooperation with teachers and other educational experts. This way an effective and practically deployable serious game is developed that matches the real needs of teachers and contributes to sustainable improvement of classroom management skills. The game should not only stimulate reflection and perspective taking, but also offer directly applicable tools and didactic tips to reduce disruptive behavior in the classroom.

Powerful dialogue: strengthening Diversity Sensitive Teaching
Keywords: Diversity, Professional identity, Professionalisation of educators, Secondary school education
Presenting Author: Ditte Lockhorst, Oberon research institute, Netherlands; **Presenting Author:**Esther Wijma, Hogeschool Utrecht, Netherlands; **Co-Author:**Martine van Rijswijk, Utrecht University, Netherlands; **Co-Author:**Lotte Henrichs, Utrecht University, Netherlands; **Co-Author:**Monique Verhoeven, Utrecht University, Netherlands; **Co-Author:**Julia Penning de Vries, Utrecht University, Netherlands

In this roundtable discussion we will discuss our research answering the central question *How can professional dialogue between teachers, school trainers, and teacher education programs enhance the collaborative training and professional development of (prospective) teachers on diversity sensitive teaching?*A research team has conducted a cross-case analysis, exploring the work of five action research teams in five different schools for secondary education in an urban area of the Netherlands. The action research teams consist of a coordinating teacher researcher, teachers, school trainers, institute trainers and a researcher from the research team. The teams work on context-specific research questions around diversity sensitive teaching. Preliminary results show the need for a tool that can start a professional dialogue on how stigmas, lack of consciousness and incorrect assumptions play a role in diversity sensitive teaching and how to deal with these. Together, we will discuss the first design of this tool and focus on refining the dialogue starters used within the tool. The input discussed during the roundtable will be incorporated into the redesign of the tool. This session aims to raise awareness about the use of new methods for professional dialogue and introduce participants to a new dialogue starter for inspiration.

Identity Work Among Teachers and Facilitators in Times of Educational Innovation
Keywords: Collaborative Learning, Professional Development, Professional identity, Professionalisation of educators
Presenting Author: Elly van den Berg, CHE, Netherlands; **Presenting Author:**Maarten Hendrik van der Vloed, Christelijke Hogeschool Ede, Netherlands

Our practice based research shows the impact of the narratives educators live within and the stories they live by, not only on their teaching, but also on how they deal with educational innovation and processes of transformation. Still formal professional development courses are focused on knowledge sharing, information, skills or strengthening value driven teaching. Facilitators still focus on teamwork, qualities of the team members, communication skills of teams and team-effort. Both support systems in our university overlooked the identity work of educators for a long time. Identity work is defined in our research by Alvesson, and focus on forming, strengthening or revise professional identity. The concept of professional identity is based in our study on research of Ruijters. We started an narrative inquiry to explore this observed identity work in teams of educators. Based on fieldnotes which are written by the facilitators we explored the phenomenon of identity work. The research question: How do facilitators work alongside teams to support transformational learning and unfold identity work in teams of educators? We like to discuss with participants that identity work is key to sustainable innovation, what needs to change in how we approach teams of educators in order to transformation.

Session H 1

27 November 2025 10:00 - 11:30
Meeting Room 103
Present & Discuss
Higher education, Lifelong learning, Workplace learning

Present & Discuss: Authenticity, Self-Determination, and Program Management in Learning Organizations

Keywords: Continuing professional development in Teachers, Higher education, Leadership development, Leadership styles, Motivation, Philosophy of education, Professional Development, Team Learning, Well-being & engagement, Workforce diversity and equality, Workplace learning
Interest group: CLOUD 05 - HRD & Workplace learning, CLOUD 08 - Diversity & equality in different contexts, CLOUD 12 - Leadership in Education
Chairperson: Michelle Proyer, University of Luxembourg, Luxembourg

The experience of human dignity in culturally diverse teams
Keywords: Leadership development, Professional Development, Well-being & engagement, Workforce diversity and equality
Presenting Author: Danaë Huijser, University of Humanistic Studies, Netherlands

A phenomenological study through a humanistic lens. The research presented in this article is grounded in a hermeneutic phenomenological conceptualization of human dignity, in which meaning is constructed in a social, intersubjective context (Gergen 2009; Adler, 2021). Starting from the humanistic leadership perspective (Lucas, 2015; Hicks, 2018; Lawrence and Nohria, 2002; Pirson, 2017; Adler, 2021), we take a relational approach and zoom in on the micro-context

of intercultural interactions at work. Through 30 semi-structured interviews with team members of four teams in two multinational organizations, we explore the experience of human dignity of culturally diverse team members at work. Although diversity characteristics on the individual team member level influence the experience of human dignity, our findings indicate that the experience of human dignity is related to the fulfillment of universal drives and always relational. We conclude that the experience of human dignity in culturally diverse teams requires a shift in attention from diversity characteristics present in individual team members, to diversity as a pattern of drives and values that vary between team members and different organizational actors.

Toward Collective Self-Determination in Workplace Learning in Hospital and Technology Organizations
Keywords: Leadership development, Motivation, Team Learning, Workplace learning
Presenting Author: Sara Keronen, University of Jyväskylä, Finland

Knowledge-intensive work seen on continuous learning and development requires employees' self-determination at the individual level. However, complex work tasks are rarely completed alone, and employees need to utilize flexibly different teamwork and collective practices. Self-determination should be approached from collective perspective among employees, not only from individually oriented activities. This study explores the nature of collective self-determination (CSD) and its supportive leadership practices in workplace learning in hospital and technology organizations. The research questions were as follows: *1) How is CSD described in workplace learning situations in hospital and technology organizations? 2) How does CSD emerge in workplace learning situations in hospital and technology organizations?* and *3) What kinds of practices support CSD in workplace learning situations in hospital and technology organizations?* The data consist of employees' interviews (N=56), diaries (N=29), and group discussions (N=180 min). A multiple-case study research strategy was utilized, and the data were analyzed using qualitative content analysis, interaction analysis and phenomenographic analysis. Findings show that CSD emerges as social, relational and interactional phenomenon and construct through individual initiatives and collective practices. Although CSD emphasize employees' flexibility, responsibility and autonomy of their own actions, supervisors' coaching practices are needed to support CSD on daily basis.

Integrating the Theory of Qualification with Program Management in Higher Education
Keywords: Continuing professional development in Teachers, Higher education, Leadership development, Professional Development
Presenting Author: Hans Frederik, Vrije Universiteit Amsterdam, Netherlands

Integrating the Theory of Qualification with Program Management in Higher Education The concept of qualification plays a central role in Gert Biesta's (2009) framework for the three functions of education: qualification, socialization, and subjectification. According to Biesta, qualification refers to the acquisition of the knowledge, skills, and dispositions necessary for individuals to function effectively in work and society. While this function is often prioritized in educational policy and institutional discourse, Biesta warns against reducing education solely to this utilitarian aim. He argues for a more balanced understanding that includes the broader personal and societal purposes of education. Sara Franch extends Gert Biesta's work by emphasizing the dimensions of qualification in curriculum-making and teacher practice.

Authentic leadership practice in schools- Keeping it real or unreal?
Keywords: Leadership development, Leadership styles, Philosophy of education, Professional Development
Presenting Author: Anthony Thorpe, University of Roehampton, United Kingdom

Authentic leadership theory in education has used the phrase 'keeping it real' to offer a more effective form of educational leadership, though critics question its utility in practice. This practice-based research about authentic leadership practice in schools asks, first, what insights are provided by authentic leadership theory into the current problems in the practice of educational leadership; and second, in what ways can authentic leadership theory offer guidance to practitioners, researchers and policy makers to improve day-to-day leadership practice and leadership development? The research design adopted a qualitative methodological approach in which semi-structured interviews were conducted with a sample of 16 senior leaders in state funded and independent schools in England. The main findings highlighted tensions between the role of leaders in schools and their authentic self, and identified aspects missing from leadership development such as the building of self-esteem and the understanding of the moral aspects of leadership as important components that need to feature more in development programmes and opportunities for practitioners.

Session H 2

27 November 2025 10:00 - 11:30
Meeting Room 5
Present & Discuss
Higher education, Secondary education

Present & Discuss: Collaborative and Participatory Approaches to Learning and Research

Keywords: Cognitive Skills & Development, Collaborative Learning, Communities of Learners and/or Practice, Cooperative learning, Higher education, Knowledge Building and Development, Organisational learning, Practice-based research (methodology), Vocational education
Interest group: CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being, CLOUD 11 - Practice-based Research Methodology
Chairperson: Michael Holzmayer, University College for Teacher Education, Austria

Teachers and students conducting research together in Vocational Education, what do they learn?
Keywords: Cognitive Skills & Development, Collaborative Learning, Communities of Learners and/or Practice, Vocational education
Presenting Author: Silvia Hoogvorst, mboRijnland, Netherlands; **Presenting Author:**Jaap Kraak, MBO Rijnland, Netherlands; **Presenting Author:**Erica Wijnands, mboRijnland, Netherlands

This study investigates the impact of Communities of Practice (CoPs) in vocational education and training (VET) on the learning and development of participating students, teachers, and educational teams. The central research questions focus on the impact of their CoP participation and the stimulating and impeding factors on these CoPs. Methodologically, the research involved semi-structured interviews with eight CoP leaders, reflective self-reports from participating students, and focus group discussions. Thereafter, template analysis followed to identify themes based on the assessment instrument of value creation in communities (Wenger-Trayner & De Laat, 2011), and additional themes. Results indicate that CoP participation significantly enhances students' self-confidence, educational involvement, research and collaborative skills. CoP participation also fosters teachers' professional development in collaborating with students and conducting research. The findings suggest that the investigated CoPs are good practices for contributing to improved educational quality, advocating for their broader implementation in VET settings.

The application of communities of practice in development projects
Keywords: Collaborative Learning, Communities of Learners and/or Practice, Cooperative learning, Organisational learning
Presenting Author: Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland; **Co-Author:**Sabrina Gallner, University for Teacher Education Lucerne, Switzerland

Research and development projects on a university level create expertise on a topic, but the expertise can also be seen as knowledge islands, on which creativity and praxis-reference may strand. This makes knowledge management an important issue in research and development projects. In this study we want to address the relevance of knowledge management, exemplify it by means of Communities of Practice (CoP) and present data analyses from a multi-university project on digital skills advancement in Switzerland. The guiding questions ask how CoPs are formed, what their goal is, and how they operate. Results show that top-down implementation of development project products counteract to praxis-oriented needs. A stronger link between universities and praxis would help to develop more usable and utilised products for a target group and increase its chances of adoption.

'Strong Living Labs': From a Conceptual Analysis to a Research Agenda
Keywords: Communities of Learners and/or Practice, Higher education, Knowledge Building and Development, Practice-based research (methodology)
Presenting Author: Didi Griffioen, Hogeschool van Amsterdam, Netherlands

Higher education increasingly positions transdisciplinary living labs (TLLs) as social learning environments for academics, professionals, and students. These environments often combine transdisciplinary innovation with student learning. The heterogeneous mix of participants, their knowledge, and interests forms the transdisciplinary ideal for impactful societal innovation. At the same time, balancing these interests is necessary for sustained collaboration and also represents the greatest challenge of transdisciplinary cooperation, as argued in this conceptual paper. This paper focuses on this balance of interests in transdisciplinary innovation and learning and how it can be influenced. The conceptual analysis reveals that the current philosophical and practical toolkit may insufficiently support the interests of participants to enable long-term transdisciplinary collaboration in higher education. By incorporating practice-oriented reasoning and real-world collaboration dynamics, the paper lays a foundation for research that generates actionable knowledge. Sandra Harding's notion of 'Strong Objectivity'

(1992, 1993, 1995) is positioned as a potential direction for improvement. The resulting research agenda is presented for feedback to the EAPRIL audience.

Session H 3

27 November 2025 10:00 - 11:30
Meeting Room 101
Present & Discuss
Higher education, Lifelong learning

Present & Discuss: From Assessment to Inquiry: Supporting Self-Regulated Learning in Education

Keywords: 21st century learning, Assessment and evaluation, Higher education, Inquiry learning, Knowledge Building and Development, Practice-based research (methodology), Professional Development, Self-regulation and self-regulated learning, STEM, Training and Development, Writing
Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being
Chairperson: Leonard Busuttil, University of Malta, Malta

Impact of Summative Assessment on Self-Regulated Learning in Higher Education
Keywords: 21st century learning, Assessment and evaluation, Higher education, Self-regulation and self-regulated learning
Presenting Author: Jeroen van der Linden, HAN University of Applied Sciences, Netherlands; **Co-Author:**Harry Stokhof, HAN University of Applied Sciences, Netherlands

This research investigates the impact of summative assessment environments on the development of self-regulated learning (SRL) skills in higher education students. Using a mixed methods approach, the study combines quantitative surveys and qualitative interviews to explore students' learning behaviours and perceptions.Key findings identify two main goal orientations: passing exams and becoming competent professionals. The research highlights the importance of self-efficacy and deliberate SRL strategies for effective learning. However, there is a significant discrepancy between students' perceptions of assessment and their actual learning behaviours, with many prioritising passing grades due to the structure of summative assessments and lack of formative feedback. Furthermore, , the findings show that teachers often do not focus their feedback on SRL. The study concludes that current summative assessment practices often hinder the development of SRL skills. To address this, suggestions include integrating formative assessments that provide continuous feedback, aligning assessment practices with SRL improvement goals, and training teachers to support SRL through their assessment practices. These strategies aim to shift the focus from simply passing exams to fostering deeper learning and self-regulation, ultimately supporting students to achieve long-term academic success.

Empowering Students Through Feedback-Seeking as a Self-Regulation Strategy in Higher Education
Keywords: Higher education, Self-regulation and self-regulated learning, STEM, Writing
Presenting Author: Baraa Khuder, Chalmers Unviersity of Technology, Sweden

This project introduces a structured pedagogical model for teaching feedback-seeking behaviour (FSB) as a self-regulation strategy in first-year STEM higher education. Grounded in the self-regulation of learning (SRL) framework, the model was implemented over 14 weeks in a project-based academic writing course involving 96 students across 16 groups. Students engaged in feedback monitoring, observing what good practices are, and inquiry, asking questions to improve performance, from both peers and teachers, with activities integrated into each stage of the writing process.The project addressed a growing need in higher education to equip students with feedback literacy and autonomy. By embedding FSB into the curriculum, the model redefined feedback as a student-led, iterative, and multidirectional process. Data from reflections, drafts, and feedback questions revealed that students developed strategic approaches to identifying weaknesses, formulating inquiries, and revising collaboratively.This practice-based research contributes a replicable, theory-informed pedagogical model that transforms feedback from a passive reception process into an active learning tool. It fosters metacognitive skills, autonomy, and resilience—skills vital for academic success and lifelong learning. The approach demonstrates the power of integrating FSB into curricula to enhance engagement and empower students to take ownership of their learning.

From Practice to Principle: Building Professional Knowledge through Guided Self-Observation
Keywords: Higher education, Knowledge Building and Development, Self-regulation and self-regulated learning, Training and Development
Presenting Author: Paula Mayoral Serrat, Ramon Llull University, Spain; **Co-Author:**Juan-José Mena Marcos, University of Salamanca, Spain; **Co-Author:**Eva Liesa, Ramon Llull University, Spain; **Co-Author:**Montserrat Alguacil, Ramon Llull University, Spain

This study investigates how pre-service teachers (PSTs) construct professional knowledge during their practicum through an observational self-assessment tool —the Effective Teaching Behaviour (ETB) guide. Based on a quasi-experimental design, the research analyses the self-reflections of 80 PSTs from a Spanish university who reviewed video recordings of their teaching interventions and completed structured self-reports. Participants were divided into two groups (with and without the ETB guide) and two practicum levels (Beginner and Intermediate). Results indicate that direct teaching experience, as provided in the Intermediate Level Practicum, promotes the generation of more profound, rule-based knowledge. Moreover, the ETB guide supports the transition from narrative reflections (recalls and appraisals) to inferential knowledge (rules and principles), highlighting its potential to enhance reflective thinking. However, the tool did not significantly improve the precision of the reflections, suggesting that this dimension may require explicit training and further scaffolding. The findings underscore the importance of integrating structured self-assessment tools within practicum programmes to foster professional learning. Furthermore, they call attention to the need for targeted pedagogical strategies that develop pre-service teachers' capacity to reflect with clarity, depth and relevance, thus bridging the gap between teaching practice and theory.

Inquiry-based teamwork to foster self-regulated learning in primary and secondary school children
Keywords: Inquiry learning, Practice-based research (methodology), Professional Development, Self-regulation and self-regulated learning
Presenting Author: Jeroen Rozendaal, University of Applied Science Rotterdam Hogeschool Rotterdam, Netherlands; **Co-Author:**Patrick Sins, Rotterdam University of Applied Science, Netherlands

Self-regulating one’s learning is considered of critical importance for students’ academic success. Although there is ample knowledge on how to foster self-regulated learning (SRL), teachers often struggle to translate this into effective classroom interventions. Inquiry-Based Teamwork (IBTW) offers a promising approach to support teachers in this process. In IBTW, participants jointly identify and clarify practice-based challenges, design evidence-informed solutions, test them in practice, and reflect on outcomes–ideally in short, iterative cycles and in collaboration with colleagues, school leaders, and pupils.The MOZAIC Consortium was established as a collaborative initiative consisting of five Teacher Study Groups (TSGs) in primary and secondary education, which engaged in inquiry-based teamwork to enhance students’ SRL. Each TSG was supported by a teacher leader. Experiences of participating teachers were gathered using the ‘wallpaper roll method’ – a dialogical and visual approach to collect reflections over time. Multiple case study of the TSGs interview transcripts yielded practical insights into TSG activities and the importance of horizontal and vertical alignment within schools.This contribution demonstrates what it takes for teachers to tackle local educational challenges in an inquiry-based manner and highlights design considerations for multiple case studies that aim to generate and maintain practical impact besides transferable knowledge.

Session H 4

27 November 2025 10:00 - 11:30
Meeting Room 102
Present & Discuss
Higher education, Secondary education

Present & Discuss: Preparing Teachers and Students for Critical Engagement in the Age of AI

Keywords: Artificial intelligence, Beliefs and conceptions of learning, Biology education, Collaborative Learning, Competence-based education, Continuing professional development in Teachers, Diversity, In-service Teacher Training, Initial Teacher Education (Pre-service), Interaction and discourse in education, Multiculturalism in Education, Philosophy of education, Professionalisation of educators, Secondary school education, Teaching approaches
Interest group: CLOUD 01 - Teacher education, CLOUD 08 - Diversity & equality in different contexts
Chairperson: Marcel Metsaars, Netherlands

Beyond my own beliefs: value-loaded critical thinking on controversial topics through dialogue
Keywords: Diversity, Multiculturalism in Education, Philosophy of education, Teaching approaches
Presenting Author: Ama Amitai, Karel de Grote Hogeschool and Odisee hogeschool, Belgium; **Co-Author:**Laura Van Den Broeck, Odisee University College, Belgium; **Co-Author:**Eef Cornelissen, Odisee University College, Belgium

Navigating value differences in schools poses challenges for teachers, particularly in religion and ethics education, where controversial topics such as gender,

racism, and religious plurality frequently arise. This study investigates the needs of Dutch-speaking religion and ethics teachers in Belgium in addressing these topics and stimulating students' value-loaded critical thinking. Drawing on a needs analysis comprising in-depth interviews (n=19) and a brief survey (n=184), the study shows that teachers regard their subject as a unique dialogue space for discussing value-loaded controversies. They adopt multiple roles—witness, expert, and moderator—to teach about these topics. For example, religion teachers perceive that their witness role enables students' openness on controversial topics, compared to other teachers. However, opportunities for an in-depth dialogue about students' perspectives remain unexploited as teachers do not frequently enact a facilitator role. Teachers also highlight the need for structured exercises that gradually build dialogue skills while creating safe environments. Seven design criteria were formulated for a teaching method with structured dialogue exercises, such as focus on arguments underneath students' perspectives and ensure a dignity-safe space. Inspired by 'Philosophy With Children', the resulting method supports students to explore topics related to identity, justice, and complex moral issues.

Teachers' Professional Development and Confidence in Students' Use of Generative AI for Learning
Keywords: Artificial intelligence, Beliefs and conceptions of learning, Continuing professional development in Teachers, In-service Teacher Training
Presenting Author: Mohammed Rizkallah, Sharjah Education Academy, United Arab Emirates

This study explores the relationship between professional development (PD) and K–12 teachers' confidence in integrating generative AI (GenAI) into classroom practice. Based on a qualitative study conducted in Sharjah, UAE, we present findings from interviews with 15–20 teachers across subject areas and school types. Through open and axial coding of interview data, we found that teachers who had access to AI- or EdTech-related PD demonstrated significantly higher confidence and more nuanced understanding of GenAI's educational potential. In contrast, those without such training expressed ethical concerns, anxiety, and resistance to implementation.The study shows that PD not only imparts technical skills but also shapes teacher identity, fostering openness, ethical reflection, and innovation readiness. This session will offer practical recommendations for designing localized, impactful PD programs that prepare teachers to guide students in the responsible and effective use of GenAI tools.

How do pre-service teachers approach the challenges arising with generative AI in schools?
Keywords: Artificial intelligence, Competence-based education, Initial Teacher Education (Pre-service), Professionalisation of educators
Presenting Author: Christoph Schneider, University of Trier, Germany; **Co-Author:**Lothar Müller, University of Trier, Germany; **Co-Author:**Frederick Johnson, University of Trier, Germany

While tomorrow's teachers, in majority 'Millennials' or 'Gen Z', grew up in and are familiar with a world of digital technology, the sudden availability of generative AI tools is also a new challenge to this cohort. Since the launch of ChatGPT, teachers are inevitably required to come to terms with it. This piece of research, drawing on survey data from 918 pre-service teachers, unveils how digital competences and attitudes which have been acquired all across the life span impact AI-specific perceptions (i.e. attitudes, competence, and intentions to use AI in the classroom). Latent variable structural equation modelling reveals that AI-specific attitudes are only influenced by general digital-related attitudes, but not by perceived competence. AI competences and intentions to use AI, in turn, markedly depend on both attitude and competence. As the mindset in which future teachers approach AI is shaped by prior attitudes and competence relating to digital technology in general, teacher educators are well-advised to draw upon these inside their coursework to have their students reflect on how to incorporate generative AI into their teaching in a meaningful way.

Are you sure? Epistemic dialogues to help students reflect about science in a post-truth world
Keywords: Biology education, Collaborative Learning, Interaction and discourse in education, Secondary school education
Presenting Author: Leen Bisschop, Odisee University College, Belgium; **Presenting Author:**Laura Van den Broeck, Odisee University College, Belgium; **Co-Author:**Dickran De Coster, Odisee University College, Belgium; **Co-Author:**Jelle De Schrijver, Odisee university college & Antwerp University & Ghent University, Belgium

In today's post-truth society, students struggle to evaluate scientific claims amid widespread misinformation. This study explores how epistemic dialogues—structured philosophical conversations—can foster students' epistemic resilience. Using Educational Design Research, we addressed three questions: (1) What challenges do teachers face? (2) What design principles support this pedagogy? (3) How do students respond? Findings show that safe, reflective dialogue fosters critical distinctions (e.g., fact vs. opinion), it may also help students develop epistemic virtues. However, peer interaction remains limited. The study highlights the need for teacher training to help teachers facilitate these dialogues and supports the integration of dialogic methods into science education.

Session H 5

27 November 2025 10:00 - 11:30
Lecture Room 201
Present & Discuss
Higher education, Lifelong learning, Workplace learning

Present & Discuss: From Social Awareness to Distance Learning: Pathways to Student Resilience

Keywords: Cognitive Skills & Development, Distance Education, Educational Effectiveness and quality of education, Emotions and emotional development, Equality / Education for All, History education, Motivation, Practice-based research (methodology), Self-regulation and self-regulated learning, Well-being & engagement
Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 08 - Diversity & equality in different contexts
Chairperson: Lisette Munneke, Utrecht University of Applied Sciences, Netherlands

Supporting self-management and social awareness for adolescents in youth centers in Tunisia
Keywords: Emotions and emotional development, Equality / Education for All, Motivation, Self-regulation and self-regulated learning
Presenting Author: Wiltrud Weidinger, Zurich University of Teacher Education, Switzerland; **Co-Author:**Nada Najjar, Faculty of Humanities and Social Sciences, Tunis, Tunisia

The FOYER project – *Fostering Self-Competences in Tunisian Youth Centers*– aims to enhance the social-emotional development of young people through targeted interventions in youth centers, using the Jdaida Youth Center in Manouba as a pilot site. This qualitative study investigates the impact of an educational intervention on adolescents' social-emotional competencies, particularly focusing on self-management and social awareness as aspects of inclusion especially for individuals from disadvantaged backgrounds. The intervention includes training for tutors in delivering life skills programs and organizing youth activities. Using an action-research approach which applies a mixed-method pre-post-test design, data is collected through participative observation and semi-structured interviews with participants before and after the training (Caracelli & Greene, 1993; McTaggart, 1997, 2006; Popplewell & Hayman, 2012). Through qualitative content analysis insights into the change in strategies of self-management and practices of social awareness are derived using the CASEL framework and its two dimensions "self-management" and "social awareness" (CASEL 2020, 17f; INEE, 2016). The research results after the pre- and post-test will be presented, identifying key elements of effective self-competence training for educators and aiming to build a scalable model of good practice for youth centers across Tunisia.

Emotional Intelligence and Student Well-Being: Why Meeting Psychological Needs Matters
Keywords: Cognitive Skills & Development, Emotions and emotional development, History education, Well-being & engagement
Presenting Author:AIKATERINI VASIOU, University of Crete, Greece; **Co-Author:**ELENI VASILAKI, University of Crete, Greece; **Co-Author:**Konstantinos Mastrothanasis, National and Kapodistrian University of Athens, Greece; **Co-Author:**Evangelia Galanaki, National and Kapodistrian University of Athens, Greece

This study explored the relationship between emotional intelligence (EI), basic psychological needs satisfaction, and university students' happiness. A total of 205 students from the University of Crete completed measures of EI, happiness, and the satisfaction of autonomy, competence, and relatedness. Findings revealed that EI was positively associated with happiness, particularly through the satisfaction of basic psychological needs. The use and regulation of emotions, along with competence and autonomy, significantly predicted happiness. Mediation analyses showed that competence played a central role in linking EI to happiness. The study highlights the importance of fostering emotional intelligence and psychological need satisfaction to promote students' well-being in higher education settings. Universities are encouraged to implement interventions that enhance emotional skills, autonomy, and a sense of competence among students to improve their academic and personal outcomes.

Learning from the Impact of COVID-19: Practical Lessons for Future Distance Learning
Keywords: Distance Education, Practice-based research (methodology), Self-regulation and self-regulated learning, Well-being & engagement
Presenting Author: Valentin Unger, St.Gallen University of Teacher Education, Switzerland; **Presenting Author:**Julian Brauchle, University of Teacher Education St.Gallen, Switzerland

This presentation examines the educational impact of COVID-19-related school closures through several sub-studies within a larger Swiss research-project and derives practical implications for future distance learning. Guided by the question of how to design distance learning in future crises that is both conducive to learning and considers students' well-being, the project employed a mixed-methods approach. Quantitative data from digital learning tools indicated reduced learning gains during the pandemic, with subsequent signs of recovery and increased use of digital tools. Qualitative interviews with 20 teachers highlighted the critical role of family support and student self-regulation in academic success, while well-being was strongly influenced by social interaction and socioeconomic status. A survey of 1,224 students revealed diverse experiences: although students missed social contact and teacher support, many appreciated greater autonomy. Multivariate regression analyses, confirmatory factor analyses, and latent profile analyses underscored the importance of learning behavior, self-regulation, and socioeconomic status, and revealed a moderate correlation (r=.424) between learning success and well-being. Drawing on these findings, a usage model with practical guidelines was developed to inform future crisis-driven distance learning. By emphasizing student well-being, independent learning skills, and purposeful digital media use, this model aims to help schools better prepare for future disruptions.

The impact of students' self-regulation skills on learning success and well-being during COVID-19
Keywords: Distance Education, Educational Effectiveness and quality of education, Self-regulation and self-regulated learning, Well-being & engagement
Presenting Author: Julian Brauchle, University of Teacher Education St.Gallen, Switzerland; **Presenting Author:**Laura Schmidberger, St.Gallen University of Teacher Education, Switzerland; **Co-Author:**Valentin Unger, St.Gallen University of Teacher Education, Switzerland

School closures implemented to contain the COVID-19 pandemic forced students into remote learning environments requiring high levels of independent work. As the research on the impact of self-regulation in distance learning remains limited, this study investigates how students' self-regulation skills influenced both their learning success and well-being during this period, using a multilevel mixed-methods approach. First, semi-structured interviews with N = 16 Swiss teachers revealed strong perceptions of a positive relationship between students' self-regulation and both learning success and well-being. Based on these qualitative findings, hypotheses regarding the role of self-regulation were derived. In a second step, a structural equation model based on survey data from N = 1,224 secondary students from Switzerland and Germany confirmed the hypotheses: self-regulation significantly predicted learning success (β=.516,p

Session H 6

27 November 2025 10:00 - 11:30
Meeting Room 6
Workshop
Vocational education

Are you ready for responsive education? Discover required teacher talents.

Keywords: Collaborative Learning, Continuing professional development in Teachers, Curricula, Vocational education
Interest group: CLOUD 02 - Educators' professional development

Vocational education institutes (VET) and universities of applied sciences (UAS) are challenged to develop educational programs that can flexibly adjust to needs of an increasingly diverse student population, as well as changes and challenges in the labor market and wider society. This involves transitioning from largely one-off, mono-disciplinary, school-dominated approaches to curriculum innovation and enactment, to approaches that are characterized by participative continuous development processes involving multiple actors and disciplines. This adds socio-political complexity, which affects the day-to-day practice of teachers, and the talents they need in order to successfully fulfill their teaching positions. As part of an educational design research (EDR) PhD project, we developed an assessment tool that teachers can use to discover the talents they have and need in order to thrive in this rapidly evolving educational landscape. Are you teacher in the context of (higher) vocational education or do you support teacher(s) (development)? Then this workshop might be interesting for you.

Are you ready for responsive education? Discover required teacher talents.
Presenting Author: Maria Custers, ELAN, University of Twente, Netherlands; **Co-Author:**Susan McKenney, University of Twente, Netherlands

Vocational education institutes (VET) and universities of applied sciences (UAS) are challenged to develop educational programs that can flexibly adjust to needs of an increasingly diverse student population, as well as changes and challenges in the labor market and wider society. This involves transitioning from largely one-off, mono-disciplinary, school-dominated approaches to curriculum innovation and enactment, to approaches that are characterized by participative continuous development processes involving multiple actors and disciplines. This adds socio-political complexity, which affects the day-to-day practice of teachers, and the talents they need in order to successfully fulfill their teaching positions. As part of an educational design research (EDR) PhD project, we developed an assessment tool that teachers can use to discover the talents they have and need in order to thrive in this rapidly evolving educational landscape. Are you teacher in the context of (higher) vocational education or do you support teacher(s) (development)? Then this workshop might be interesting for you.

Session H 7

27 November 2025 10:00 - 11:30
Meeting Room 2
Case study
Higher education

Case Study: Innovative Approaches to Education and Public Engagement

Keywords: 21st century learning, Higher education, Philosophy of education, Research cooperation frameworks, Stakeholder partnerships, Teaching approaches, Training and Development, Well-being & engagement
Interest group: CLOUD 01 - Teacher education, CLOUD 11 - Practice-based Research Methodology
Chairperson: Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Redesigning "Values Education" in Luxembourg's Teacher Training: Insights from Academic Instructors
Keywords: 21st century learning, Higher education, Teaching approaches, Well-being & engagement
Presenting Author: Christian Meyers, University of Luxembourg, FLSHASE, Luxembourg; **Co-Author:**Christophe Watelet, BScE, University of Luxembourg, Luxembourg; **Co-Author:**Gilbert Busana, University of Luxembourg, Luxembourg; **Co-Author:**Yves Kreis, University of Luxembourg, Luxembourg

This case study explores the pedagogical redesign of the "Values Education" within the Bachelor in Education Sciences at the University of Luxembourg. Faced with rising student disengagement and the growing use of generative AI, the Academic instructors reimagined the course to preserve its socio-constructivist roots while fostering creativity, reflection, and emotional engagement. The redesigned course integrates multimodal group projects (visual posters, artistic creations, video reflections) and supports foundational learning through lectures and contemplative practices. AI was critically embedded in the course rather than prohibited, encouraging students to reflect on their digital habits and epistemological assumptions. Despite challenges such as uneven prior knowledge and language diversity, students demonstrated stronger collaboration, deeper emotional investment, and increased engagement. The course now functions as a living laboratory for future-oriented pedagogy that blends structured guidance with creative autonomy, supporting both academic rigor and joyful learning.

Practice-Based Research and Public Engagement: a Science Comedy Training
Keywords: Philosophy of education, Research cooperation frameworks, Stakeholder partnerships, Training and Development
Presenting Author: Kiran Tomas van den Brande, Aeres Group, Netherlands; **Co-Author:**Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands; **Co-Author:**Christian de Kleijn, Aeres University of Applied Sciences, Netherlands; **Co-Author:**Frank de Jong, Open University of the Netherlands, Netherlands; **Co-Author:**Corné Kocks, Aeres University of Applied Sciences, Netherlands; **Co-Author:**Arnoud Evers, Open University of the Netherlands, Netherlands

This case study examines a science comedy training initiative developed for practice-based researchers (PBRs) at a university of applied sciences in the Netherlands. The rationale behind the initiative was to support researchers in designing public engagement (PE) methods that go beyond traditional forms of communication by incorporating creativity and performance. Participants included lecturers, project leaders, and mostly practice based researchers (PBRs) in the green domain (agrifood, biology etc). The training was implemented over four sessions of hours and introduced Hannah Arendt's five principles of action and speaking to support reflection and conceptual development. The case explores how participants valued and integrated these principles into their design of PE methods and which (combination) of principles were used. Key conclusions will be presented as these are still work in progress. The study will end in August 2025 and the results will be presented in this case study. These findings will be relevant for designing PE methods in the context of practice based research.

Session I 1

27 November 2025 11:45 - 13:15
Meeting Room 102
Workshop
Higher education

Learn to Use the Change Lab Methodology: A Systemic Change Approach

Keywords: Collaborative Learning, Creativity, Educational Policy, Innovations in education
Interest group:

Study success profoundly impacts students, educational institutions, and society. However, singular interventions—like selection policies, buddy systems, or assessment reforms—often fail to address deeper systemic frictions. This study focuses on these frictions within the interplay between management, teachers, and students in first-year teacher teams in higher professional education. Using the Change Lab methodology, key systemic frictions were identified, such as a lack of shared vision, insufficient self-regulation support, and weak student-teacher bonding. Grounded in the theory of expansive learning, the team analyzed these frictions, designed targeted interventions, and implemented small-scale experiments. These efforts fostered shared insights and stronger alignment, which are expected to improve study success over time. The findings highlight the critical role of co-creation and teacher team reflection in overcoming systemic challenges. The accompanying workshop introduces the methodology, guiding participants in addressing systemic issues. By engaging with practical tools and exploring solutions collaboratively, participants will leave with strategies applicable to their own educational contexts. Moreover, the workshop offers space to reflect together and contribute to the further refinement of the methodology.

Learn to Use the Change Lab Methodology: A Systemic Change Approach
Presenting Author: Remco Coppoolse, Utrecht University of applied science, Netherlands; **Presenting Author:**Patricia Brouwer, Hogeschool Utrecht Lectoraat Werken in Onderwijs, Netherlands; **Co-Author:**Rick Ikkersheim, Utrecht University of Applied Sciences, Netherlands

Study success profoundly impacts students, educational institutions, and society. However, singular interventions—like selection policies, buddy systems, or assessment reforms—often fail to address deeper systemic frictions. This study focuses on these frictions within the interplay between management, teachers, and students in first-year teacher teams in higher professional education. Using the Change Lab methodology, key systemic frictions were identified, such as a lack of shared vision, insufficient self-regulation support, and weak student-teacher bonding. Grounded in the theory of expansive learning, the team analyzed these frictions, designed targeted interventions, and implemented small-scale experiments. These efforts fostered shared insights and stronger alignment, which are expected to improve study success over time. The findings highlight the critical role of co-creation and teacher team reflection in overcoming systemic challenges. The accompanying workshop introduces the methodology, guiding participants in addressing systemic issues. By engaging with practical tools and exploring solutions collaboratively, participants will leave with strategies applicable to their own educational contexts. Moreover, the workshop offers space to reflect together and contribute to the further refinement of the methodology.

Session I 2

27 November 2025 11:45 - 13:15
Lecture Room 201
Symposium
Higher education, Vocational education

Authentic Learning and Teaching in an AI-Era: Multiple Perspectives

Keywords: Authentic learning, Blended learning, Higher education, Innovations in education, Instructional Design and Instructional Strategies, Interaction and discourse in education, Learning Analytics, Technology Enhanced Learning, Vocational education
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Nick Gee, United Kingdom
Organiser: Suzan van Brussel, Avans university of applied sciences, Netherlands
Organiser: Mariola Gremmen, HAN University of Applied Sciences, Netherlands
Organiser: Jurjen Ophuis, Avans Hogeschool / Avans University of Applied Sciences, Netherlands
Organiser: Chantal Velthuis, Saxion University of Aplied Sciences, Netherlands
Organiser: Tjark Huizinga, Saxion University of Applied Sciences, Netherlands
Organiser: Kim Schildkamp, University of Twente, Netherlands
Organiser: Petra Fisser, ROC van Twente, Netherlands
Organiser: Esther van der Stappen, Avans university of applied sciences, Netherlands
Organiser: Kirsten de Ries, IVA, Netherlands
Discussant: Gert Vanthournout, Belgium

In an era where AI and technological innovation shape education, authenticity remains essential. How can we create authentic learning experiences and student-teacher interactions that are personal, relevant, and meaningful, while also embracing technological opportunities? This symposium explores how three Dutch universities of applied sciences use research and innovation to improve educational practices.All projects aim to enhance students' engagement in education. At the first university of applied sciences, teachers and students co-designed VET education. Secondly, a higher education institute introduced a workshop and microlearning to support formative assessment. At the third higher education institution, learning analytics are implemented in courses to improve study progress. While the interventions differ, each focuses on strengthening teacher impact on students.Each contribution addresses three key aspects:Main characteristics and research/innovation approachResearch findingsEducational impact and implications for teaching and educationThe symposium aims to explore how educational technology can support learning and student-teacher interaction through an evidence-informed approach. To foster interactivity, the chair will engage the audience with online quizzes after each session. The responses to these open questions will be discussed by the referent, making the symposium a fully blended and participatory experience.

Learning Analytics to Support Learning
Presenting Author: Chantal Velthuis, Saxion University of Aplied Sciences, Netherlands; **Co-Author:**Tjark Huizinga, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Kim Schildkamp, University of Twente, Netherlands; **Co-Author:**Petra Fisser, ROC van Twente, Netherlands; **Co-Author:**Irene Visscher, Saxion Hogeschool, Netherlands

Redesigning the LMS as part of the learning environment allows for intentional data collection on student behaviour and their context. This data support teachers gain deeper insights into student learning, progress, and performance, enabling tailored instruction. Despite its potential, Learning Analytics (LA) is not widely used in education. This study explores how teachers in vocational education, universities of applied sciences, and universities integrate LA into their courses and their experiences with it. Seven teachers from three institutions incorporated LA in their courses with educational and technical support. Interviews with teachers revealed their objectives, design choices, and experiences. Students were also interviewed to understand their perspectives. Teachers used LA to gain insights into student preparation and their characteristics (interests, learning approaches). They found LA valuable to gain insight in all students, deepen coaching discussions, and empowering students to control their learning. Direct data collection from existing systems within institutions proved beneficial. Insights from LA were used to improve course design and support teaching decisions. Students consider LA to be an integral part of the provided education and advocate for LA to be meaningful for both teachers and students. We recommend involving students in the LA implementation process.

Co-Designing Learning with Students: Towards Blended and Personalized Vocational Education
Presenting Author: Mariola Gremmen, HAN University of Applied Sciences, Netherlands; **Co-Author:**Kirsten de Ries, IVA, Netherlands

Teachers in vocational education face challenges in designing learning environments that align with students' diversity, autonomy, and individual learning needs. Simultaneously, students often experience a limited sense of agency and voice in their learning process, resulting in a misalignment between educational practices and their capacities, preferences, and motivation. While personalized learning, particularly when enhanced with ICT, holds promises for fostering learner-centered educational practices, concrete methodologies to design education *in co-creation*—with students, teachers, educational specialists, ICT experts, and researchers—remain scarce.This practice-based study explores a co-creative, participatory approach to educational design in vocational education. A pilot study was conducted in one vocational course, where students actively co-designed their learning environment alongside teachers. This collaborative inquiry led to the development of an initial version of a co-design methodology, providing teachers with a practical tool to collaboratively align educational practices with their students' needs, potentially enhancing student engagement, ownership and self-regulated learning. This contribution presents key insights from the pilot study and discusses implications for embedding co-design as a sustainable practice in vocational education to enhance professional learning, student agency and voice and life-long learning competencies in vocational contexts

Empowering Teachers through Formative Quizzing in Blended Higher Education
Presenting Author: Jurjen Ophuis, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Suzan van Brussel, Avans University of Applied Sciences, Netherlands; **Co-Author:**Esther van der Stappen, Avans University of Applied Sciences, Netherlands

This contribution explores how formative quizzing, grounded in the formative assessment cycle (Gulikers & Baartman, 2017), can support teacher development and enhance student learning in blended higher education. As part of a professional development initiative at a Dutch University of Applied Sciences, a low-threshold workshop was developed to support teachers in designing and implementing quizzes across all five phases of formative assessment.

The intervention included interactive video case analyses and a post-workshop microlearning module, enabling participants to revisit key concepts and explore relevant literature at their own pace. This follow-up resource reinforced the workshop content and provided additional theoretical grounding.

Data were collected via pre- and post-intervention surveys, measuring both perceived competence and the frequency of formative assessment actions. Results indicate a growth in perceived competence, especially in clarifying learning goals and providing feedback.

This session will present the design, implementation, and outcomes of the intervention, highlighting practical implications for blended teaching. Interactive polling and a group-based video case discussion will ensure engagement and reflection.

Session I 3

27 November 2025 11:45 - 13:15
Meeting Room 103
Workshop
Higher education

Developing, Prototyping, and Piloting Scenario-based Assessments in the Age of GenAI

Keywords: Artificial intelligence, Assessment and evaluation, Higher education, Technology Enhanced Learning
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

This workshop builds upon the first year R&D of a project to create GenAI enhanced scenario-based assessment (SBA) authoring tools for post-secondary instructors. SBAs place knowledge and skills into a scenario or practical context so that test-takers can be both observers of and active participants in their own performance. This creates the opportunity for a reflective, metacognitive, and self-regulatory loop for learners. Instructors can thus use SBAs formatively while maintaining the psychometric properties necessary to evaluate student success in learning and applying course concepts, as well as monitoring the quality of their instruction. Recent advances in GenAI make it possible to scale-up and democratize SBA development, enabling instructors to design and administer localized, personalized, and discipline appropriate performance assessments, moving beyond traditional multiple choice exams and writing assignments. After providing a brief overview of SBAs, participants will:a) login to try SBA prototypes demos developed collaboratively with course instructors,b) discuss instructional features and results of 2025 piloting in post-secondary courses,c) build their own SBA mock-ups from prototype templates, andd) provide recommendations and formative critical commentary for use by the system designers.

Developing, Prototyping, and Piloting Scenario-based Assessments in the Age of GenAI
Presenting Author: John Sabatini, The University of Memphis, United States; **Co-Author:**Tenaha O'Reilly, Educational Testing Service, United States; **Co-Author:**Paul Deane, Educational Testing Service, United States

This workshop builds upon the first year R&D of a project to create GenAI enhanced scenario-based assessment (SBA) authoring tools for post-secondary instructors. SBAs place knowledge and skills into a scenario or practical context so that test-takers can be both observers of and active participants in their own performance. This creates the opportunity for a reflective, metacognitive, and self-regulatory loop for learners. Instructors can thus use SBAs formatively while maintaining the psychometric properties necessary to evaluate student success in learning and applying course concepts, as well as monitoring the quality of their instruction. Recent advances in GenAI make it possible to scale-up and democratize SBA development, enabling instructors to design and administer localized, personalized, and discipline appropriate performance assessments, moving beyond traditional multiple choice exams and writing assignments. After providing a brief overview of SBAs, participants will:a) login to try SBA prototypes demos developed collaboratively with course instructors,b) discuss instructional features and results of 2025 piloting in post-secondary courses,c) build their own SBA mock-ups from prototype templates, andd) provide recommendations and formative critical commentary for use by the system designers.

Session I 4

27 November 2025 11:45 - 13:15
Meeting Room 101
Workshop
Higher education

Experience the Expedition Map and navigate collectively in innovation processes amid uncertainty

Keywords: Collaborative Learning, Diversity, Innovations in education, Team Learning
Interest group:

Curriculum (re)design is a complex process (Brand-Gruwel, 2019)[1]. Especially if a more iterative approach is used to foster curriculum innovation, such as the ´expedition´ strategy of Williams and Parr (2004, modified by Coppoolse, 2018)[2]. Tools to help teams survive and thrive on such a ´curriculum design expedition´ are scarce. Through Participatory Action Research using a Design Thinking[3] and a Deep Democracy[4] lens, 100+ curriculum designers developed a new 'PABO' curriculum in 3+ years time. To help them, an evidence-informed reflective tool is developed and tested: the expedition map. This workshop lets participants experience the professionally designed map, which helps (multi disciplinary) teams to navigate through iterative curriculum design by reflecting-in-action on processes and outcomes. The aim is to empower the EAPRIL participants to use the tool in their own context and help – students or professionals – to navigate amidst uncertainty during innovation. This workshop will be an embodied, outdoor workshop (if possible). Where participants will visit several places on the map (such as the cave of uncertainty, the mountains of resistance or the know-it-all isle) and have meaningful conversations about their own experiences on such places. Moreover, they will explore the relevance of such places and how to get there.

Experience the Expedition Map and navigate collectively in innovation processes amid uncertainty
Presenting Author: Manon Joosten, Inholland University of Applied Sciences, Netherlands; **Co-Author:**Guido Stompff, Inholland University of Applied Sciences, Netherlands

Curriculum (re)design is a complex process (Brand-Gruwel, 2019)[1]. Especially if a more iterative approach is used to foster curriculum innovation, such as the ´expedition´ strategy of Williams and Parr (2004, modified by Coppoolse, 2018)[2]. Tools to help teams survive and thrive on such a ´curriculum design expedition´ are scarce. Through Participatory Action Research using a Design Thinking[3] and a Deep Democracy[4] lens, 100+ curriculum designers developed a new 'PABO' curriculum in 3+ years time. To help them, an evidence-informed reflective tool is developed and tested: the expedition map. This workshop lets participants experience the professionally designed map, which helps (multi disciplinary) teams to navigate through iterative curriculum design by reflecting-in-action on processes and outcomes. The aim is to empower the EAPRIL participants to use the tool in their own context and help – students or professionals – to navigate amidst uncertainty during innovation. This workshop will be an embodied, outdoor workshop (if possible). Where participants will visit several places on the map (such as the cave of uncertainty, the mountains of resistance or the know-it-all isle) and have meaningful conversations about their own experiences on such places. Moreover, they will explore the relevance of such places and how to get there.

Session I 5

27 November 2025 11:45 - 13:15
Meeting Room 2
Present & Discuss
Higher education, Secondary education

Present & Discuss: Teacher Education, Identity, and Professional Sustainability

Keywords: Beliefs and conceptions of learning, Curricula, In-service Teacher Training, Initial Teacher Education (Pre-service), Innovations in education,

Mathematics Education, Numeracy, Pre-school education / kindergarten, Professional identity, Professionalisation of educators, Self-efficacy
Interest group: CLOUD 01 - Teacher education
Chairperson: Ton Klein, Oberon, Netherlands

Understanding causes, consequences, and measures to address teacher shortages in developed countries
Keywords: In-service Teacher Training, Initial Teacher Education (Pre-service), Pre-school education / kindergarten, Professionalisation of educators
Presenting Author: Hanneke Theelen, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Dave van Breukelen, Fontys University of Applied Sciences, Netherlands

The global teacher shortage is a pressing issue that impacts educational systems across all levels, from primary to tertiary education, also in developed countries. This systematic literature review explores the causes, consequences, and measures of teacher shortages. Key research questions include: What is known about the causes, consequences, and measures of teacher shortages in primary, secondary, vocational, higher, and special education in developed countries since 2007? The review identified 47 studies, revealing that career conditions, classroom issues, demographics, and well-being are leading causes of recruitment and retention challenges. The consequences impact students, teachers, schools, and society. The measures found can be grouped into five categories: workplace support, financial incentives, professional development, teacher recruitment, and stakeholder engagement. Therefore, successfully tackling teacher shortages requires a comprehensive approach, supported by government initiatives and policies, that targets every stage of the teacher career from recruitment to retirement. This research contributes to educational practice by offering insights into how systemic challenges can be addressed to improve teacher recruitment and retention, ultimately enhancing the quality of education.

Characteristics of high performing preservice primary teachers in mathematics
Keywords: Beliefs and conceptions of learning, Initial Teacher Education (Pre-service), Mathematics Education, Numeracy
Presenting Author: Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Michiel Veldhuis, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

This research explores characteristics and motivations of preservice teachers, who are high performing in mathematics, in Dutch primary school teacher education . While much attention is given to preservice teachers who perform less in mathematics, there is little focus on those who are high performing, despite their potential value in education. Analyses of ten semi-structured interviews show that preservice teachers who are high performing in mathematics often have a pre-university education, display a growth mindset, and view mathematics as a challenge. Less affluent preservice teachers tend to avoid mathematics and exhibit a more instrumental view on learning. These findings suggest that preservice teachers who are high performing in mathematics need specific support to fully develop their potential as future teachers.

Balancing between Courage and Care: Paradoxes in Teacher Education Innovation
Keywords: Curricula, In-service Teacher Training, Initial Teacher Education (Pre-service), Innovations in education
Presenting Author: Martin Vos, Fontys University of Applied Science, Netherlands; **Presenting Author:**Bruno Oldeboom, Windesheim University of Applied Sciences, Netherlands

Educational institutions are increasingly driven to innovate their teacher education programs due to societal changes, educational insights, and teacher shortages. However, such innovation processes often encounter paradoxical tensions between radical change and incremental improvements (Schaap, L., & Vanlommel, K. (2024).In this paper a project, in which six Dutch innovative teacher education programs were analysed, is presented. For the project the intended, the implemented and attained curriculum were examined through a longitudinal three-year multiple case study approach. During the project, each case was followed, using group interviews and document analysis. This paper focusses on the implemented curriculum (Thijs & Van den Akker, 2009).The central research questions in this paper focused on identifying implicit change strategies and understanding how paradoxes influence innovation. After the second year, a cross-case analysis took place with a specific focus on change strategies.Analysis showed that radical innovations (a 'courage' strategy) frequently remained isolated, while cautious approaches (a 'care' strategy) kept constrained by existing practices (COMMIT, 1996).Recognizing these paradoxes explicitly enables institutions to navigate tensions productively. The study concludes that successful innovation requires balancing bold experimentation with careful integration, thus informing practical strategies for sustainable educational change (Authors).

The Role of Student Guidance Skills in Teacher Identity and Efficacy: A Study of Japanese Teachers
Keywords: In-service Teacher Training, Initial Teacher Education (Pre-service), Professional identity, Self-efficacy
Presenting Author: Kiho Tanaka, Doshisha University, Japan; **Co-Author:**Hiroyuki Ueda, Osaka Shin-Ai Gakuin University, Japan

This study explores the relationship between student guidance skills, teacher identity, and teacher self-efficacy among junior high school teachers in Japan. Early-career teacher attrition has been increasing, with insufficient student guidance skills identified as a contributing factor affecting teachers' psychological resilience and professional development. To investigate these associations, data were collected from junior high school teachers and analyzed using cluster analysis and variance comparisons. The results suggest that higher levels of student guidance skills may be linked to stronger teacher identity and greater self-efficacy. These preliminary findings underscore the potential importance of student guidance competencies in fostering teacher motivation and career sustainability. Future research should employ longitudinal designs to clarify causal relationships and inform the development of targeted professional development programs.

Session I 6

27 November 2025 11:45 - 13:15
Meeting Room 5
Workshop

Shared and embodied reading with 7-to-19-year-olds for autenthic engagement and reading competence

Keywords: Authentic learning, Creativity, Professional Development, Reading
Interest group:

The project “The Power of Reading” uses action research to identify successful and authentic teaching methods to strengthen students' engagement and competence in reading literature. The project builds on teacher-identified areas of development: primary school students appreciate reading aloud but do not continue with their own reading, Swedish as Foreign Language students are often not accustomed to reading literature, and upper secondary school students find older texts difficult. During the project, teachers implement creative methods to promote the reading of literature, and researchers interview students and teachers. Data collection includes transcripts, artworks, recordings of theatrical performances, and exit tickets. The workshop illustrates two teaching methods tested in the project: *shared reading* and *embodied learning*. Two texts used in classrooms for book talks will be read with the participants and followed by one activity per text: sitting drama, also called hot-seating drama, and making paper dolls representing literary characters, respectively. The activities draw on Gee's (2017) theories about learning in affinity spaces, Felski's (2020) theories about reading fiction, and Mangen's (2013) research on embodied learning. The workshop provides examples of how to successfully work with literary texts that challenge the students, and it is finished by a discussion.

Shared and embodied reading with 7-to-19-year-olds for autenthic engagement and reading competence
Presenting Author: Annbritt Palo, Luleå University of Technology, Sweden; **Presenting Author:**Maria Karlsson, Piteå Municipality, Sweden; **Presenting Author:**Charlotta Melander, Piteå Municipality, Sweden; **Presenting Author:**Linda Wikström, Piteå Municipality, Sweden; **Co-Author:**Lena Manderstedt, Luleå University of Technology, Sweden; **Co-Author:**Maria Löfgren, Umeå University, Sweden; **Co-Author:**Ulrika Bergmark, Luleå University of Technology, Sweden

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Session J 1

27 November 2025 14:15 - 15:45

Meeting Room 3
Case study
Primary education

Case Study: Exploring Pathways to Diversity, Equity, and Inclusion in Communities and Schools

Keywords: Culture and Education, Diversity, Equality / Education for All, Inclusivity, Multiculturalism in Education, Primary school education
Interest group: CLOUD 08 - Diversity & equality in different contexts
Chairperson: Hedia Mhiri Sellami, Tunisia

Reclaiming Space, Reclaiming Authenticity: A Summer Cinema as a Catalyst for Social Inclusion
Keywords: Culture and Education, Diversity, Equality / Education for All, Multiculturalism in Education
Presenting Author: Michael Holzmayer, University College for Teacher Education, Austria; **Co-Author:**Katharina Rosenberger, University College for Teacher Education, Austria; **Co-Author:**Michael Rylko, TU Wien, Austria

This study examines the "Summer Cinema" project, a community cinema initiative aimed at promoting social inclusion and reclaiming public space in a diverse urban environment. The research focuses on how cultural initiatives can foster dialogue, create a sense of belonging for marginalized groups, address diversity and power dynamics, and serve as tools for social transformation.The theoretical framework draws on Pierre Bourdieu's theories of field, habitus, and capital, as well as concepts from Norbert Elias and Paul Willis. The methodology followed qualitative-empirical research principles, employing observations, photographic documentation, and 19 interviews. Data analysis used category-based content analysis with an inductive approach.Key findings include:1. Participation was crucial for the acceptance and relevance of educational programs.2. The project promoted social interactions between typically segregated groups.3. Challenges arose in working with partner schools and communicating with the neighborhood.4. Bourdieu's framework effectively elucidated mechanisms of (self-)marginalization and discrimination.The study concludes that community-based initiatives like "Summer Cinema" offer valuable insights into leveraging technology to enhance authentic human connection and promote critical thinking about social justice issues, particularly relevant in the age of AI and digitalization in education.

Teacher-researcher collaboration on a diversity, equity and inclusion resource for primary school
Keywords: Diversity, Equality / Education for All, Inclusivity, Primary school education
Presenting Author: Sergei Glotov, University of Luxembourg, Luxembourg; **Co-Author:**Sylvie Kerger, University of Luxembourg, Luxembourg; **Co-Author:**Nathalie Atten, Primary School Differdange, Luxembourg

The proposal focuses on a year-long project, which aims to develop a pedagogical resource promoting diversity, equity and inclusion pedagogy for primary school teachers (4-12 years old). The primary classes are becoming more diverse (Blanchard et al., 2018), and researchers have urged schools and teachers to foster children's identities and attitudes to others, by embedding diversity, equity and inclusion into practice (Lang et al., 2014). Recognising this, as well as the increasingly growing classroom diversity within the national context, we developed a pedagogical resource in collaboration with in-service teachers.We approach the project as a case and critically examine teacher-researcher collaboration during the project, reflecting on the ways the research and practice were intertwined across multiplicity of voices. Two university researchers and in-service primary school teachers collaborated together in a way that allows for teachers' expertise, lived experiences, and identities to be recognised and met with care (Potvin et al., 2024). We conclude that open dialogue, solidarity, and shared understanding and responsibility of the final goals are the keys to successful teacher-researcher collaboration. Hence we argue for the importance of including teachers' voices and present strategies for including these when developing resources targeting teachers' practice.

Session J 2

27 November 2025 14:15 - 15:45
Aula Magna C
Roundtable
Higher education, Secondary education

Roundtable: Visualizations, Literacy, and Evaluation: Rethinking Learning in the AI Era

Keywords: Artificial intelligence, Assessment and evaluation, Cognitive Skills & Development, Higher education, Learning / Teacher Management System, Mathematics Education, Technology Enhanced Learning, Writing
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Anthony Thorpe, University of Roehampton, United Kingdom

From Offloading to Ownership: Strengthening AI Literacy in Finance Students
Keywords: Artificial intelligence, Assessment and evaluation, Cognitive Skills & Development, Higher education
Presenting Author: Sylvia Schouwenaars, HZ University of Applied Sciences, Netherlands; **Co-Author:**Kristie de Visser, HZ UAS, Netherlands

Generative AI is transforming higher education, but are students prepared to engage with it responsibly? This pilot study explores how targeted training can shift students from passive consumers to active, critical users of AI. While AI offers opportunities for enhanced learning, it poses risks such as cognitive offloading—where students depend on AI without engaging deeply with the content. In response to the EU AI Act and the UNESCO AI Competency Framework for Students (2024), this study investigates how an AI literacy training, embedded within the curriculum, contributes to the development of students' AI competencies and critical thinking skills. The central research question is: "How does an AI literacy training integrated into the curriculum contribute to the development of AI competencies among students in higher education?" The study follows a pretest-posttest design involving 22 students, using both quantitative and qualitative methods. Surveys aligned with the UNESCO framework measure AI literacy before and after the training, while focus group discussions provide deeper insight into students' perceptions of AI and its impact on their thinking. This roundtable invites educators and researchers to exchange ideas on training design, approaches to measuring critical thinking, and strategies to reduce over-reliance on AI tools in student learning.

Teacher Interpretation of Knowledge Spaces: Analysing different visualization features.
Keywords: Assessment and evaluation, Learning / Teacher Management System, Mathematics Education, Technology Enhanced Learning
Presenting Author: Peter Steiner, University of Teacher Education St.Gallen, Switzerland; **Co-Author:**Fabian Grünig, St.Gallen University of Teacher Education, Switzerland; **Co-Author:**Stephanie Leininger, St.Gallen University of Teacher Education, Switzerland; **Co-Author:**Jan Hochweber, St. Gallen University of Teacher Education, Switzerland; **Co-Author:**Stephan Schönenberger, St.Gallen University of Teacher Education, Switzerland; **Co-Author:**Michael Kickmeier-Rust, University of Teacher Education, Switzerland

To optimally support student learning, teachers need informative assessments of students' current state of knowledge. This contribution investigates teachers' ability of interpreting student assessment data presented through Knowledge Space Theory (KST), an assessment framework that measures students' knowledge states within a network-like structure of competencies. Two research questions (RQ) guide the study: (1) Are assessment results presented in formats typical for KST-based feedback interpretable for teachers in terms of students' current knowledge and next feasible learning steps? (2) Which visual features of feedback enhance teachers' interpretation accuracy? To address these questions, a study with at least 100 in-service and pre-service teachers is planned. To answer RQ1, questions focusing on interpreting knowledge states of fictitious students and identifying next feasible learning steps will be presented (e.g., "Is task XY a next feasible learning step for student AB?"). To answer RQ2, versions of knowledge space representations with and without specific visual features (e.g., color-coded next steps, labelled transitions) will be compared in an experimental design. In addition, open-ended questions will be analysed inductively to explore perceived helpfulness of the visualizations more specifically. Findings will be discussed regarding teachers' ability to interpret KST-based assessment results and potential support based on visual feedback features.

Master thesis evaluation in the times of GenAI
Keywords: Artificial intelligence, Assessment and evaluation, Higher education, Writing
Presenting Author: Daria Bogdanova, KU LEUVEN, Belgium; **Co-Author:**Ana Paklons, KU LEUVEN, Belgium

As generative AI (GenAI) becomes an increasingly prevalent tool among university students, higher education institutions face challenges in assessment, course design, and pedagogical adaptation. While existing research explores GenAI in educational contexts, little attention has been given to its role in master's theses – the capstone work of graduate students. This research explores how master's students and educators perceive GenAI's role in thesis writing and evaluation, highlighting ethical, academic, and practical concerns. It examines the challenges GenAI introduces to traditional assessment methods and considers which aspects may need reevaluation due to this technological shift.

A mixed-methods approach will be used, combining qualitative and quantitative techniques. Online questionnaires will collect large-scale data on GenAI usage

trends and ethical concerns, while semi-structured interviews with students, thesis advisors, and administrators will provide deeper insights into experiences and institutional responses. By bridging theoretical discourse with real-world applications, this study aims to provide practical insights for universities adapting to.

Session J 3

27 November 2025 14:15 - 15:45
Aula Magna A
Roundtable
Higher education, Primary education

Roundtable: Sustainable and Technology-Supported Practices in Teacher Professional Development

Keywords: Collaborative Learning, Creativity, Distance Education, Initial Teacher Education (Pre-service), Primary school education, Professionalisation of educators, Special Educational needs
Interest group: CLOUD 01 - Teacher education
Chairperson: Katarzyna Kärkkäinen, University of Jyväskylä, Finland

Shared expertise for sustainable teacher education, a collaborative approach to course development
Keywords: Collaborative Learning, Creativity, Initial Teacher Education (Pre-service), Special Educational needs
Presenting Author: Marie-Jeanne Meijer, Windesheim university of applied sciences, Netherlands; **Co-Author:**Jantien Gerdes, Windesheim University of Applied Sciences, Netherlands

Teachers face complex student support challenges, yet their training does not always prepare them adequately for these situations. At the same time, special education (SEN) holds a wealth of expertise in differentiated instruction and inclusive pedagogy. The question arises: how can this SEN expertise be effectively translated into teacher education? Using the Change Lab methodology, SEN experts from practice and teacher educators engage in an iterative process to develop education that is rooted in practice. Three research questions guide this co-design process: How can tacit knowledge from special education be surfaced and translated into mainstream teacher education to support beginning teachers? What learning experiences and pedagogical strategies enhance beginning teachers' resilience and capability to address complex student needs? How do professional agency, boundaries, and commitment influence the co-design process and the resulting curriculum? We present an innovation grounded in real-world complexity that will enhance the agency of beginning teachers. We aim to demonstrate how design-based, participatory methods like the Change Lab can lead to sustainable educational change. By integrating diverse knowledge sources and practice insights, this project offers a blueprint for redesigning teacher education in ways that are both inclusive and adaptive.

Real-time remote coaching of classroom management: the role of telepresence and social presence
Keywords: Distance Education, Initial Teacher Education (Pre-service), Primary school education, Professionalisation of educators
Presenting Author: Francois Molin, Open University of the Netherlands, Netherlands; **Presenting Author:**Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands; **Co-Author:**Karel Kreijns, Open University of the Netherlands, Netherlands; **Co-Author:**Jorrick Beckers, Open University of the Netherlands, Netherlands; **Co-Author:**Kamakshi Rajagopal, Stories That Make Us, Belgium

This roundtable addresses the practice of real-time remote coaching in teacher education, focusing on developing classroom management skills of pre-service teachers. Real-time remote coaching is a coaching situation whereby the pre-service teacher is in the classroom and the teacher educator is at another place. It entails using synchronous telecommunication media such as surveillance cameras with accompanying audio equipment to capture livestream classroom video and sounds, and - more specifically - an earbug device to establish a one-way direct audio link with the pre-service teacher. Our current research interests are to investigate how social presence and telepresence influence the effectiveness of remote coaching and how to optimize both when using remote coaching, using a design-based research methodology. The aim of the roundtable is to have a dialogue with the participants on the affordances and constraints of real-time remote coaching for developing classroom management skills. We will also explore how we can optimize social presence and telepresence to bridge the distance between the teacher educator and pre-service teachers during real-time remote coaching and gather input to refine both theory and practice in this domain.

Session J 4

27 November 2025 14:15 - 15:45
Meeting Room 5
Case study
Secondary education

Case Study: Leadership and Support Strategies for Inclusive and Sustainable School Practices

Keywords: Distance Education, Leadership development, Learning and Developmental Difficulties/Disabilities, Primary school education, Professional Development, Secondary school education, Team Learning
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 12 - Leadership in Education
Chairperson: Anne-Marieke van Loon, Fontys University of Applied Science, Netherlands

Developing a feedback tool for school leaders for in-depth dialogues with team members
Keywords: Leadership development, Professional Development, Secondary school education, Team Learning
Presenting Author: Wouter Schenke, Penta Nova, Netherlands; **Presenting Author:**Pieter Buggenhout, GO! Atheneum Unesco Koekelberg, Belgium; **Presenting Author:**Willem van den Kieboom, Merletcollege, Netherlands; **Co-Author:**Loes van Wessum, Windesheim Zwolle, Netherlands

In this interactive session, we will present a research-informed feedback tool designed for school leaders in primary and secondary schools. The feedback tool aims to support school leaders in collecting in-depth feedback from employees in a safe and constructive manner. This tool was developed in response to the limitations of traditional employee satisfaction surveys, which often yield anonymous and general data. While such surveys can highlight overall trends, they rarely encourage open dialogue – asking colleagues about their responses can feel unsafe or intrusive. To address this gap, the feedback tool facilitates more meaningful, trust-based conversations. Two school leaders and two researchers collaborated in developing this feedback tool. The tool offers practical strategies for both school leaders and team members to develop mutual trust and engage in deeper, more authentic feedback exchanges. In this EAPRIL session, we will stimulate dialogues in small groups with a focus on team learning and leadership practices.

Supporting school attendance through online distance education
Keywords: Distance Education, Learning and Developmental Difficulties/Disabilities, Primary school education, Secondary school education
Presenting Author: Ton Klein, Oberon, Netherlands; **Presenting Author:**Petra Poelmans, Rotterdam University of Applied Sciences, Netherlands; **Co-Author:**Ellen Ros, Kennisnet, Netherlands; **Co-Author:**Anke Suijkerbuijk, Oberon, Netherlands; **Co-Author:**Marijn Vleeskens, Oberon, Netherlands; **Co-Author:**Timon de Boer, Dialogic, Netherlands; **Co-Author:**Karen Paardekooper-Lim, O21, Netherlands

School attendance problems (SAPs) are becoming an increasingly significant issue on a global and national scale (OECD, 2020; Balans, 2024). Possible causes of this phenomenon are the consequences of the COVID-pandemic and the influence of social media on adolescents (Suijkerbuijk et. al, 2024). Online distance education offers a valuable opportunity for SAP’s to re-engage in their development. The Dutch Ministry of Education together with Kennisnet launched a thee-year funding scheme called ‘Action program Digital School’ for sixteen regional coalitions, consisting of schools and collaborative partnerships for inclusive education. The activities of these initiatives are monitored and evaluated by a group of researchers. In this case study we will present the first results of our study based on analysis of the different plans and interviews. These results will be explored in more depth by one of the participating coalitions: they will present which theoretical frameworks they draw upon, what outcomes they aim to achieve for the students and the problems they encounter in the implementation of their program.

Session J 5

27 November 2025 14:15 - 15:45
Meeting Room 101
Case study
Higher education

Case Study: Ethics, Policy, and Critical Thinking in Contemporary Education and Organizations

Keywords: 21st century learning, Artificial intelligence, Assessment and evaluation, Cognitive Skills & Development, Curricula, Innovations in education, Professionalisation of educators
Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning
Chairperson: Danaë Huijser, University of Humanistic Studies, Netherlands

From detection to dialogue: The process of developing a fraud prevention policy
Keywords: Artificial intelligence, Assessment and evaluation, Innovations in education, Professionalisation of educators
Presenting Author: Brigit Kolen, Fontys University of Applied Sciences, Netherlands; **Presenting Author:**Coreline Haasakker, Fontys Hogeschool, Netherlands

The emergence of generative AI tools such as ChatGPT has forced an urgent reconceptualization of academic fraud prevention. Traditional plagiarism detection methods have proven inadequate for identifying AI-generated content, especially within a portfolio-based assessment approach which calls for a more holistic integrity framework. This case study details the collaborative development of a new fraud prevention policy that shifts the focus from curative measures like detection and sanctioning to preventive measures like dialogue and prevention. An interdisciplinary team of educational consultants, legal experts, and examination board members led an iterative design process, incorporating stakeholder feedback at each stage. The result is a comprehensive framework that embeds academic integrity into the learning journey while meeting legal and assessment requirements. Our key conclusions illustrate how educational innovation can be balanced with academic integrity in the AI era through transparent design principles and active stakeholder engagement.

Enhancing Critical thinking in AI-Enhanced Learning Environments
Keywords: 21st century learning, Artificial intelligence, Cognitive Skills & Development, Curricula
Presenting Author: Tao Wu, South china Agriculture University, China; **Co-Author:**Xiangen Hu, The Hong Kong Polytechnic University, Hong Kong

Integrating Socratic questioning with a 4E motivational-cognitive model (Effort, Enthusiasm, Expect, Easy), we developed an AI-driven scaffold that transforms passive fact-retrieval into active, reflective inquiry. The Socratic Playground for Learning (SPL), powered by GPT-4, generates personalized prompts, delivers immediate feedback, and analyzes user patterns to adapt Socratic strategies in real time. In a 16-week study (n = 128), SPL users showed significant gains in intrinsic motivation, self-efficacy, metacognitive strategy use, and self-regulation (all $p < 0.001$) compared to non-users. Qualitative improvements in questioning depth suggest that extended deployment may translate into higher-order learning outcomes. We discuss implementation guidelines for curricula, teacher training, and AI platform design, and outline directions for longitudinal, emotion-aware, and cross-cultural studies.

Session J 6

27 November 2025 14:15 - 15:45
Meeting Room 2
Case study
Lifelong learning, Primary education

Case Study: Arts, Culture, and Authentic Practice in Learning

Keywords: Authentic learning, Collaborative Learning, Communities of Learners and/or Practice, Higher education, History education, Inquiry learning, Lifelong Learning, Music & Arts Education
Interest group: CLOUD 04 - Improving learning and well-being
Chairperson: Mohammed Rizkallah, United Arab Emirates

Collaborative Craft: Authentic Practice and Lifelong Learning for Classical Musicians
Keywords: Communities of Learners and/or Practice, Higher education, Lifelong Learning, Music & Arts Education
Presenting Author: Petteri Pitko, University of Helsinki, Finland

As AI becomes increasingly prevalent across all domains of life, the distinct value of socio-emotional skills, critical thinking, and tactile and artistic human practices, such as handcraft or live music-making, becomes increasingly evident (World Economic Forum, 2025). Although digitalization and AI transform education alongside broader societal shifts, authentic situated practices, which digital technologies cannot (yet) replicate, continue to serve as essential learning spaces, beyond the reach of any digital environment. This case study introduces an innovative degree programme designed for professional classical musicians who aim to refine their skills through early music studies. Based at a university of applied sciences, the programme builds on the traditional master-apprentice model, common in the field, expanding it into a framework of guided, reflective participation in situated practice, serving as a space for shared knowledge-building, collaborative learning, meaningful encounters, and a sense of belonging within a community (Lave & Wenger, 1991; Rogoff, 1995; Wenger, 1998). The presentation includes an introduction to the teaching model of the study programme, an ongoing research project, the potential applicability of the concept to other fields, and a discussion on the importance and value of lifelong learning (UNESCO, 2024; REACT, 2021).

Museum Theatre impacts on student engagement and learning
Keywords: Authentic learning, Collaborative Learning, History education, Inquiry learning
Presenting Author: Dianne Aylward, Queensland Department of Education, Australia

Museum Theatre facilitates an immersive learning experience for students by applying inquiry-based learning-by-doing enabling students to create knowledge through actions, mimicking historical and contemporary life. This research aims to evaluate the effect of the Museum Theatre History in a Box Program participation on year 3 student engagement and advocacy for protection of historical sites beyond what could be achieved within the classroom. The data reveals through survey and open-ended questions that 100% of teachers believed that students were highly engaged during the program. There was 100% agreement that program achieved the learning intentions of exploration, interpretation, and analysis of the significance of cultural and historical sites. Analysis of student comments during the program found 100% student engagement, meaning complete immersion and focus on the collective tasks. On average 65% of students demonstrated valuing of history and advocacy for protection of historical sites. Museum theatre inspires continued thinking, deeper and more meaningful interactions with museum content, return visitation by teachers with their classes, and enhances student engagement and advocacy for historical sites, beyond what could be achieved within the classroom.

Session J 7

27 November 2025 14:15 - 15:45
Aula Magna D
Roundtable
Higher education, Vocational education

Roundtable: Collaboration, Meaning-Making, and Innovation in Education and Research

Keywords: Collaborative Learning, Continuing professional development in Teachers, Game-based learning / Gamification, Motivation, Philosophy of education, Practice-based research (methodology), Professionalisation of educators, Self-regulation and self-regulated learning, Stakeholder partnerships, Vocational education
Interest group: CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being, CLOUD 11 - Practice-based Research Methodology
Chairperson: Didi Griffioen, Hogeschool van Amsterdam, Netherlands

Get a Grip on Learning – Enhancing Self-Regulated Learning through Game-Based Learning
Keywords: Game-based learning / Gamification, Motivation, Self-regulation and self-regulated learning, Vocational education
Presenting Author: Charly Boerboom, mboRijnland, Netherlands; **Presenting Author:**Silvia Hoogvorst, mboRijnland, Netherlands

This roundtable presents a planned practice-based study exploring the use of a game-based learning intervention to foster self-regulated learning (SRL) in vocational education. While SRL is vital for lifelong learning and professional development, vocational students often struggle to effectively plan, monitor, and reflect on their learning. To address this challenge, we have developed a classroom game grounded in Zimmerman's cyclical SRL model. The game targets four core domains of SRL—cognitive, metacognitive, behavioral, and motivational—through strategy and challenge cards that prompt students to engage with SRL strategies in authentic learning tasks.Beginning in the 2025–2026 academic year, the game will be implemented in six vocational classes (levels 3 and 4) in healthcare and laboratory programs, involving approximately 120 students and 12 teachers. Data will be collected through interviews, observations, and student

reflections to explore usability, engagement, and SRL development. This roundtable invites critical discussion of our design-based approach, integration of SRL theory into daily practice, and strategies for sustainable implementation. Participants will help refine the research design and explore broader implications for embedding SRL in vocational curricula.

Practoraten as new drivers of collaborative work on educational quality in VET
Keywords: Collaborative Learning, Continuing professional development in Teachers, Professionalisation of educators, Vocational education
Presenting Author: Erica Wijnands, mboRijnland, Netherlands; **Co-Author:**Jeroen Rozendaal, Rotterdam University of Applied Science, Netherlands

Vocational education and training (VET) must prepare students for a dynamic professional world while addressing diverse needs. Research shows that meaningful innovation enhances student learning, but requires collaborative learning among educators and partners, which is still a major challenge in Dutch VET.Practoraten – centres connecting practice-based research, education and professional practice—may help improve quality by supporting teacher professionalization and student learning. However, aligning effectively with educational teams remains difficult.We are preparing a research project that explores how practoraten, together with educators, teams, managers, and external partners (e.g. knowledge institutions and social organizations), can best initiate and develop sustainable collaboration to improve educational quality.Using an appreciative, design- and action-based approach, this multiple case study aims to gather transformative ideas, strategies, and tools to strengthen collaborative learning, based on both theory and professional experience. During this round table, we'll discuss common frictions in collaboration around educational quality and promising or proven approaches to address them. While the focus is on the VET sector, we warmly welcome insights from professionals in other fields facing similar complex challenges.

Hannah Arendt for Public Engagement: Meaning-Making by Practice-Based Researchers
Keywords: Philosophy of education, Practice-based research (methodology), Stakeholder partnerships, Vocational education
Presenting Author: Kiran Tomas van den Brande, Aeres Group, Netherlands; **Co-Author:**Arnoud Evers, Open University of the Netherlands, Netherlands; **Co-Author:**Frank de Jong, Open University of the Netherlands, Netherlands; **Co-Author:**Corné Kocks, Aeres University of Applied Sciences, Netherlands; **Co-Author:**Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands

This session is based on a PhD research project focused on public engagement (PE) in Universities of Applied Sciences (UAS). It explores how practice-based researchers (PBRs) in UAS can engage with the philosophical principles of Hannah Arendt to conceptualize and design PE methods. The roundtable session introduces five principles—Art, Space of Appearance, Power, Promise, and Forgiveness—derived from Arendt's theory of Action and Speaking in The Human Condition (1958),and considers their relevance for PE practices in applied research settings. The project is halfway and combines a conceptual study, a scoping review of PE methods and a case study in this session. The latter study will be completed by September 2025. The goal is not to test the principles but to examine how they "land" with PBRs and what questions or tensions they provoke. The session draws from these studies and invites participants to reflect on the model's applicability in the contexts of the attending PBRs. The reflection will connect Arendt's ideas with typologies of PE practices from the recently finished scoping review, aiming to surface implications for method development and practice. Unlike regular presentations, the facilitators aim to co-create knowledge on their research endeavour through interactive reflection.