

EAPRIL 2024
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BOOK OF ABSTRACTS

EAPRIL 2024 IS JOINTLY
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SCIENCES AND ARTS



Opening Session & Keynote 1

26 November 2024 08:30 - 10:00
Restaurant (PXL NeXT Building D)
Keynote
Vocational education

Building Bridges: Collaborative Approaches to Powerful learning environments in Vocational Education

Keywords: Authentic Learning, Collaborative Learning, Equality / Education for All, Vocational Education

Interest group:

The majority of students in vocational education belong to the most underprivileged section of society in most European countries, and thus, from an equity-minded approach, require the most powerful learning environment (PLE). In contrast, the learning environment at school offers often lower quality learning experiences for students with lower socioeconomic backgrounds compared to the more privileged students. In our research we aim to contribute to equity in education by empowering practitioners to focus collaboratively on learning and teaching in such a way that teacher teams and students — with shared responsibility—can improve effective teaching practices and create powerful learning experiences for every student and, as a consequence, improve student engagement and achievement in vocational education.

Building Bridges: Collaborative Approaches to Powerful learning environments in Vocational Education

Presenting Author:Ingeborg Placklé, Vrije Universiteit Brussel and Hogeschool PXL, Belgium

The majority of students in vocational education belong to the most underprivileged section of society in most European countries, and thus, from an equity-minded approach, require the most powerful learning environment (PLE). In contrast, the learning environment at school offers often lower quality learning experiences for students with lower socioeconomic backgrounds compared to the more privileged students. In our research we aim to contribute to equity in education by empowering practitioners to focus collaboratively on learning and teaching in such a way that teacher teams and students — with shared responsibility—can improve effective teaching practices and create powerful learning experiences for every student and, as a consequence, improve student engagement and achievement in vocational education.

Session A 1

26 November 2024 10:30 - 12:00
Pacioli (PXL NeXT Building D)
Roundtable
Higher education, Vocational education

Enhancing Resilience and Connection in Professional Development

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Deep-level and Profound Learning, Professional Development, Vocational Education, Well-being & Engagement

Interest group: CLOUD 04 - Improving learning and well-being

Chairperson: Kerstin Helker, Eindhoven University of Technology, Netherlands

Strengthening starting youth welfare professionals' resilience through meaning in work

Keywords: Collaborative Learning, Deep-level and Profound Learning, Professional Development, Well-being & Engagement

Presenting Author:Sterre Hoenderop, HZ University of Applied Sciences, Netherlands

The aim of this PhD project is to investigate how resilience based on meaning in work can be strengthened through an educational intervention. The research design consists of four consecutive studies, together answering the central research question: how can youth welfare students' and starting professionals' resilience be developed through learning about meaning in work? The focus for the EAPRIL roundtable will be on the third study, in which an educational intervention will be developed through participatory design-based research. Based on the results of the first and second study, a scoping review and practice-based study respectively, an educational intervention will be designed collaboratively. The action workgroup will consist of youth welfare students, professionals, managers, and education experts. The work group meetings will facilitate participatory action research, promoting transformative learning and durable change. Participatory design-based research will guide the methodological development and implementation of an educational intervention. The EAPRIL roundtable discussion will center around the question: how can an optimal learning environment be created for youth welfare students and starting professionals, in order to elicit transformative learning in relation to resilience through meaning in work? Finally, during the fourth study, the impact of the educational intervention will be assessed.

Reciprocity, interactive learning and social connectedness in interdisciplinary learning communities

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Vocational Education, Well-being & Engagement

Presenting Author:Renée Oosterwijk, Hanze University Groningen. University of Applied Sciences, Netherlands; **Co-Author:**Elvira Coffetti, Hanze University Groningen. University of Applied Sciences, Netherlands; **Co-Author:**Jelly Zuidersma, Hanze University Groningen. University of Applied Sciences, Netherlands

Vocational education consists largely of practice-related activities where students acquire skills and knowledge through learning and working in practice. In the health care and welfare sector in the Northern Netherlands, this is increasingly organized in learning communities. In these integral and interdisciplinary learning communities, students, teachers, and work supervisors learn, research, and work together. Even though learning communities are becoming more popular, challenges arise when it comes to shaping interactive learning and social connectedness in communities where participants follow different educational programs. This research poses that by applying reciprocity conditions, learning communities are better able to shape interactive learning and social connectedness. Through a survey, participants (students, teachers, work supervisors) of learning communities are asked how they experience reciprocity, interactive learning, and social commitment in their community. The data collection is planned until July 2024, the preliminary analyses and results will be shared during the conference.

Session A 2

26 November 2024 10:30 - 12:00
Erllich (PXL NeXT Building D)
Case study
Workplace learning

Innovations in Education and Workplace Learning

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Educational Policy, Organisational Learning, Practice-based Research (methodology), Training and Development, Workplace Learning

Interest group: CLOUD 02 - Educators' professional development

Chairperson: Tuğba Altan, Turkiye

Creating a learning culture by working in learning networks and solving problems together.

Keywords: Collaborative Learning, Organisational Learning, Practice-based Research (methodology), Workplace Learning

Presenting Author:Christy Tenback, RENNA, Netherlands; **Co-Author:**Bernadette Evers, RENNA, Netherlands

RENN4 is an educational organization for special education in the north of The Netherlands. Teachers in more than 25 schools situated in the three northern provinces educate and guide children and youngsters with cognitive disabilities, learning disabilities, severe behavioral problems, and psychiatric disorders. Aim of the board is to develop a learning culture within the organization. From literature we know that social learning or networked learning is a helpful way for teachers to strengthen their knowledge and self-efficacy, and to enhance a learning culture (e.g. Ooghe et al., 2016; Vrieling et al., 2019; Vrieling-Teunter et al., 2021). We started a project to develop learning communities based on common questions. Each community was guided by a network coach and the coaches themselves were also active in their own network group. The groups worked for a year on their questions. Alongside we performed research on these networks by so called value creation (Hoppen et al., 2023; Wenger-Trayner & De Laat, 2011). Data of the second measurement is being collected while submitting our case and can be presented at EAPRIL 2024. Main conclusions are pointing at the direction of a success on the level of immediate value and less on revised value.

Belgian Police Towards Innovation in Collaboration with Mainstream Education

Keywords: Communities of Learners and/or Practice, Educational Policy, Practice-based Research (methodology), Training and Development

Presenting Author: Nele Libbrecht, Federal Police Belgium, Belgium; **Presenting Author:** Tine Van Thielen, Federale Politie, Belgium; **Co-Author:** Ann Massei, Federal Police Belgium, Belgium; **Co-Author:** Astrid Kaisin, Police Force Belgium, Belgium

This case study is centered on enhancing collaboration between the Belgian Police Force and the mainstream education system to maximize the benefits derived from each. In 2023 an experiment was lanced by the tutorial minister of the Belgian Police Force to explore the advantages and disadvantages of collaboration and possible integration of police education into the broader regular educational framework. The pilot project was conducted in October 2023 - October 2024 and identified numerous synergies between the two realms. In total, nine police schools, 11 colleges and 366 inspector trainees participated. Initially, the project started with unease but by building bridges, working together and keeping an open mind both the Belgian Police Force, as well as the colleges acknowledge the advantages of collaboration. For instance, the Belgian Police Force gained insights in didactic support and the colleges acknowledged the opportunity of more practice-oriented teachers at the police force. However, this initial collaboration was characterized by caution and limitations, and focused on mutual acquaintanceship. Now, the challenge lies in establishing and ensuring the long-term sustainability of this cooperation.

Session A 3

26 November 2024 10:30 - 12:00

B012 (PXL NeXT Building B)

Roundtable

Higher education

Designing Effective Pathways: From Secondary to Higher Vocational Education

Keywords: Curricula, Equality / Education for All, Higher Education, Professionalisation of Educators, Qualitative and Quantitative Approaches to Learning and Instruction, Secondary School Education, Vocational Education

Interest group: CLOUD 01 - Teacher education, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Marja Silén-Lipponen, Savonia University of Applied Sciences, Finland

Teachers as designers

Keywords: Curricula, Higher Education, Qualitative and Quantitative Approaches to Learning and Instruction, Secondary School Education

Presenting Author: Elvira Folmer-Annevelink, Hogeschool van Arnhem en Nijmegen (HAN), Belgium; **Presenting Author:** roel grol, HAN, Netherlands

In the Netherlands, national curriculum frameworks offer teachers in primary en secondary education a relatively large degree of freedom to design curricula. This is why teachers need to gain educational design knowledge and develop educational design skills. The foundation for this design expertise can be laid during initial teacher training programs. This study aims to make an inventory of the extent to which teacher training programs prepare their students for this role as designers. The main question is: what are the main characteristics of primary and secondary teacher training programs that aim at the teacher's role of designing education? By studying curriculum documents of the teacher training programs and holding additional interviews with teacher trainers, an analysis was made along the lines of the curricular spider's web. During the roundtable session, we would like to discuss future directions from here in depth.

Improving the transition from intermediate to higher vocational education with high expectations.

Keywords: Equality / Education for All, Higher Education, Professionalisation of Educators, Vocational Education

Presenting Author: martijn peters, HAN, Netherlands; **Presenting Author:** Marijke van Vijfeijken, Koning Willem 1 College, Netherlands; **Co-Author:** marije Spaargaren, HAN University Nijmegen, Netherlands

Internationally, high expectations for all students are regarded as one of the most promising educational interventions to enhance educational equality. Nonetheless, more research is needed into this within the context of intermediate vocational education students who want to make the transition to higher vocational education. These students might experience low expectations from their teachers, which leads to self-fulfilling prophecies, affecting transitions from intermediate to higher vocational education. The central question is: What are experiences of students who make the transition from intermediate to higher vocational education regarding teacher expectations, and how can teachers become more aware of the impact of teacher expectations and be prompted to act based on high expectations? Our research aims to develop a professional development program for intermediate and higher vocational education teachers through a mixed-methods approach, including focus group interviews, questionnaire surveys, and prototype testing. This program will foster an attitude of high expectations for all students and a collective efficacy belief at the team level, offering a promising path towards a more equitable educational system, especially for students with an intermediate vocational education degree who want to transition to higher vocational education.

Session A 4

26 November 2024 10:30 - 12:00

B011 (PXL NeXT Building B)

Roundtable

Higher education

Improving Feedback Literacy and Assessment Practices in Education

Keywords: 21st Century Learning, Artificial Intelligence, Assessment and evaluation, Self-regulation and Self-regulated Learning

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Marcelle Moor, Switzerland

Enhancing Feedback Literacy Through AI-Driven Educational Tools in a Lesson Study Context

Keywords: 21st Century Learning, Artificial Intelligence, Assessment and evaluation, Self-regulation and Self-regulated Learning

Presenting Author: Sylvia Schouwenaars, HZ University of Applied Sciences, Netherlands

General Abstract:

This research investigates the impact of AI-driven feedback tools on feedback literacy in higher education. Central to this study is the question: "How do AI-driven feedback tools influence the development of feedback literacy among higher education students?" Employing a mixed-methods approach, the research assesses the effectiveness of AI tools like FeedbackFruits in cultivating students' ability to process and act upon feedback. It examines trustworthiness in AI (Lin et al., 2022), the potential for AI to enhance feedback literacy as proposed by Carless and Boud (2018), and the contextualization of feedback (Olivera-Aguilar et al., 2022). This study contributes to educational practice by exploring the facilitation of critical feedback engagement through AI integration.

Session A 5

26 November 2024 10:30 - 12:00
Montessori (PXL NeXT Building D)
Case study
Higher education

Co-Creation and Civic Engagement in Higher Education

Keywords: Authentic Learning, Collaborative Learning, Creativity, Higher Education, Innovations in Education, Research-based Learning, Stakeholder partnerships

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: Henk Aversch, Netherlands

Chairperson: Dulci Altorf, The Hague University of Applied Sciences, Netherlands

Chairperson: Carlo Konings, The Hague University of Applied Sciences, Netherlands

Practice what you preach: co-creation

Keywords: Collaborative Learning, Creativity, Higher Education, Innovations in Education

Presenting Author: Miranda de Hei, The Hague University of Applied Sciences, Netherlands; **Presenting Author:** d kuijlenburg, The Hague University, Netherlands; **Presenting Author:** Margriet Lerink-Mulderink, THUAS Haagse Hogeschool The Hague Netherlands, Netherlands; **Co-Author:** Elke Müller, The Hague University of Applied Sciences, Netherlands

In January 2023 we initiated a research group to design, implement and research a new didactic method: co-creation in which workingfield professionals, students and teachers, are equitably collaborating. In co-creation, six researchers developed a plan for this project. The project leader facilitated the meetings of the research group providing different creative collaborative working methods. We explored a definition of co-creation, established conditions for good co-creation processes, formulated research questions, designed research methods and instruments, performed data-analyses and reported results.

When teachers and researchers practise co-creation for educational innovations, this can lead to a deeper level of engagement, a shared sense of partnership and responsibility. In our project, we developed a steady atmosphere in which every group member felt valued and could contribute constructively to the project, and in which we supported each other without being asked to. We achieved this result by practising what we intended to preach: equitable participation, taking the time to get to know each other, to build together an atmosphere of trust, safe and supporting conditions and to collectively reflect on our collaboration. We grew into an energising flow, congruent with what we had in mind for the participants of the co-creation projects we developed.

Integrating a Civic Research Project in a Social Sciences programme

Keywords: Authentic Learning, Higher Education, Research-based Learning, Stakeholder partnerships

Presenting Author: Leen Swinnen, UHasselt, Belgium; **Co-Author:** Jo Pierson, Universiteit Hasselt, Belgium; **Co-Author:** Karin Coninx, Universiteit Hasselt, Belgium; **Co-Author:** Gwendoline Somers, Universiteit Hasselt, Belgium

We integrated a civic research project in collaboration with a municipal administration from the region in our social sciences program. In this case study session we want to provide you with more information about our approach, best practices and lessons learned. The project consisted of a collaboration with a municipal administration on the research question they had on the way they can improve their service towards the target group of intra-European labour migrants. Our students carried out interviews with stakeholders from other municipalities and civil society organisations. In this way, they took part in an authentic learning experience wherein they could train their necessary research skills and apply their learned knowledge in a research project in close collaboration with a municipality.

Session A 6

26 November 2024 10:30 - 12:00
EA 139 (PXL NeXT Building A)
Roundtable
Primary education

Supporting Trajectories and Partnerships for Diverse Learning Needs in Education

Keywords: At-risk Students, Communities of Learners and/or Practice, Primary School Education, Professional Development, Special Educational Needs, Stakeholder partnerships

Interest group: CLOUD 08 - Diversity & equality in different contexts

Chairperson: Rianne van den Berghe, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

How can a process facilitator support trajectories for students with complex needs?

Keywords: At-risk Students, Communities of Learners and/or Practice, Special Educational Needs, Stakeholder partnerships

Presenting Author: Kathleen Bodvin, Karel De Grote University College, Belgium; **Co-Author:** Debbie De Neve, Karel De Grote University College, Belgium

Children and adolescents sometimes require additional support to facilitate their learning and development. This is particularly the case for students in vulnerable situations, who not only face challenges in school but also in the family context. Facilitating support for students facing multifaceted challenges requires collaboration between the school and youth support services. This study aims to enhance interprofessional collaboration among stakeholders in education and youth support services by investigating the potential role of a process facilitator. Through a sequential research design encompassing in-depth interviews, literature review, surveys, document analysis, and case studies, the research investigates the benefits, challenges and requirements for interprofessional collaboration between education and youth support services. Additionally, it examines the facilitator's impact on guiding support processes and stakeholders' experiences. The findings seek to offer practical insights into effective collaboration strategies and the role of process facilitators in supporting students with complex needs.

School-University Partnerships for Responsive Primary Science Education

Keywords: Communities of Learners and/or Practice, Primary School Education, Professional Development, Stakeholder partnerships

Presenting Author: Maiza de Albuquerque Trigo, University of Luxembourg, Luxembourg; **Co-Author:** Christina Siry, The University of Luxembourg, Luxembourg; **Co-Author:** Sara Wilmes, University of Luxembourg, Luxembourg; **Co-Author:** Kerstin te Heesen, University of Luxembourg, Luxembourg

The [blinded] Center serves as a collaborative space where a team of education researchers and collaborating teachers engage in dialogue and foster strategies to co-develop and co-teach professional learning opportunities in primary science education. Hence, this contribution aims to explore this third space (the [blinded] Center) as a case study of a school-university partnership that supports in-service primary teachers in addressing diverse student and teacher needs in science education. By highlighting the emergence of responsive initiatives and professional development offerings, using an interpretive lens reveals a multi-layered process of building communities of practice, shifting towards open-ended teaching approaches, and reflecting on tensions within our evolving contexts. This school-university partnership emphasizes participatory processes, ongoing dialogue, and trust-building relationships. Therefore, a qualitative research approach and interpretive lens will be employed to analyse data from various projects within the [blinded] Center (datasets will include field notes, reflection papers, focus groups, and timeline interviews) and will spotlight the team's efforts to support inquiry-based primary science education and the projects' collaboration structures with a focus on agency, and emergent from a collaboration grounded in 'co-structures' (meaning co-teaching, co-design, and co-development), and built on a process of reflect-dialogue-act. This approach demonstrates a model for transformative science education and responsive school-university partnerships within the European context.

Session A 7

26 November 2024 10:30 - 12:00
B014 (PXL NeXT Building B)
Case study
Higher education, Primary education

Sustainability in Education: From Theory to Practice Across Levels

Keywords: Beliefs and Conceptions of Teaching, Curricula, Higher Education, In-service Teacher Training, Primary School Education, Professional Development, Sustainability, Team Learning

Interest group: CLOUD 10 - Education for Sustainability

Chairperson: Jacob Nouta, Hogeschool Utrecht, Netherlands

From paper to practice: lecturers implementing SDG's in the learning environment

Keywords: Beliefs and Conceptions of Teaching, Curricula, Higher Education, Team Learning

Presenting Author: Bastienne Bernasco, Saxion, Netherlands

Dutch institutes of higher education have embraced the SDG's and are issuing policy guidelines for faculties and departments to manage sustainability performance. Lecturers are responding by reconsidering curriculum and teaching methods, integrating principles of education for sustainable development. This case study describes a cyclical, reflexive action research to enable lecturers to translate sustainability visions into practice. Lecturers of a Dutch hotel management program took part. First findings suggest that a democratic process harvesting all viewpoints is a precondition for lecturers to commit to the challenge of building competences for integrating sustainability in the local teaching context [98 words]

Co-designing Professional Development for Primary Sustainability Education: A classroom pilot

Keywords: In-service Teacher Training, Primary School Education, Professional Development, Sustainability

Presenting Author: Doriana Sportelli, University of Luxembourg, Luxembourg; **Co-Author:** Sara Wilmes, University of Luxembourg, Luxembourg; **Co-Author:** Patricia Muller, École fondamentale Beaufort, Luxembourg

Education for sustainable development (ESD) is recognized as "notoriously complex", prompting a reevaluation of pedagogical goals (Boeve-de Pauw et al., 2022). Murphy et al. (2020) identified barriers to implementing ESD in primary education, including a lack of teaching resources, packed curricula, and a need for supporting teachers in deepening their understanding of sustainability teaching and learning. The presented Way2ESD initiative aims to enhance ESD accessibility for educators through collaborative professional development (PD) that fosters relational, contextually-responsive pedagogical approaches. The proposed case study focuses on one step of the co-development process whereby a teacher-leader implemented a co-generated ESD-related topic and instructional activities in her classroom. The presentation will highlight the teacher's reflection on the classroom implementation phase, documented through teacher journals, student products, and video recorded co-development sessions with a member of the research team. The results show that the co-development approach exceeded its main objective of generating a PD workshop, as collaboration with the project team advanced the teacher in her own PD by serving as a safety net to explore new approaches in her classroom. Implications drawn from the conclusion include highlighting sustainability pedagogical approaches for use with primary students and approaches for developing sustainability PD with teachers.

Session A 8

26 November 2024 10:30 - 12:00
EA 138 (PXL NeXT Building A)
Roundtable
Higher education

Teacher Beliefs and Practices for Self-Regulated Learning

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Continuing Professional Development in Teachers, Higher Education, Innovations in Education, Self-regulation and Self-regulated Learning

Interest group: CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being

Chairperson: Andrea Gergen, Germany

Exploring teacher beliefs and practices in a assessment culture transformation

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Higher Education, Innovations in Education

Presenting Author: Martijn Vlug, Utrecht University of Applied Sciences, Netherlands

Many higher education programs search for new assessment systems to promote more meaningful learning and assessment, and find a possible answer in programmatic assessment. Programmatic assessment is a comprehensive and curriculum spanning form of assessment that encourages developmental and cohesive learning [Bartman et al., 2022], and is designed to shift the focus from assessment of learning to assessment for learning, aimed at student development [Bartman & Quinlan, 2023]. However, programmatic assessment not only requires newly designed assessment systems, but a transformation of assessment culture [Harrison et al., 2017], and many teachers need to adjust their familiar beliefs and practices [Vanlommel, 2021]. Misalignment between teacher beliefs and new assessment approaches can negatively influence the implementation [Schut et al., 2020]. But what teacher beliefs and practices regarding programmatic assessment are and what factors facilitate or hinder their change is still unknown. The research question for this study is: What are teacher beliefs and practices regarding programmatic assessment, and what contextual factors can facilitate or inhibit their development? A scoping review will further conceptualize teacher beliefs and practices regarding programmatic assessment, and identify influencing factors. The conceptual framework resulting from this study will be used to guide future research and support practice.

In the heat of the moment: how to learn to self-regulate learning while becoming a teacher?

Keywords: Beliefs and Conceptions of Learning, Continuing Professional Development in Teachers, Higher Education, Self-regulation and Self-regulated Learning

Presenting Author: Sandra Janssen, Fontys University of applied science, Netherlands; **Co-Author:** Nicole Goossens, Fontys University of Applied Sciences, Netherlands

This research focuses on how technical student teachers develop themselves in regulating their own learning process and how to guide them in this process. We aim to answer the following questions: How can insight into the learning process by student teachers be promoted and how can they develop helpful strategies for self-regulated learning in dealing with challenging situations to improve their learning process? How can teacher educators and teachers be learned to have a dialogue about the learning process of teacher students? To answer these questions four aspects (cognition, motivation/affect, behaviour and context) of self-regulated learning (SRL) are used. Pintrich (2004) is followed using the planning, monitoring, controlling and evaluating phase. We focus on the monitoring and controlling phases. First, a literature study on SRL is conducted. Second, teacher educators are interviewed in four focus groups about current learning behaviour of students during these monitoring and controlling phases. During the third phase student teachers are interviewed about their learning behaviour while encountering an 'error' in their learning process. During the fourth phase tools will be developed by using the qualitative data of the before mentioned phases and in co-creation sessions with teacher educators and student teachers.

Session A 9

26 November 2024 10:30 - 12:00

Corbu (PXL NeXT Building D)

Roundtable

Vocational education

Innovative Learning Environments in Vocational Education

Keywords: Competence-based Education, Higher Education, Instructional Design and Instructional Strategies, Practice-based Research (methodology), Teaching Approaches, Vocational Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 11 - Practice-based Research Methodology

Chairperson: Jo Tondeur, Vrije Universiteit Brussel, Belgium

Improving practical learning in hybrid learning environments through the use of vocational didactics

Keywords: Competence-based Education, Practice-based Research (methodology), Teaching Approaches, Vocational Education

Presenting Author:Ineke Dekker, Scalda, Netherlands; **Presenting Author:**Petra Poelmans, Scalda, Netherlands

This research focuses on promoting the use of vocational didactics during the initial phase of practical learning and the influence of applying vocational didactics on student learning. The central research questions are: How can the developed interventions aimed at strengthening vocational didactics during the initial phase be evaluated? What improvements can be made to enhance the effectiveness of these interventions during the initial phase of practical learning? The methodology employed is action research, which is a cyclical process with a participatory approach (Van der Zouw, 2018). All stakeholders, such as teachers, field supervisors, and students are actively involved in the entire research process. The research aligns with previous studies conducted by the practorate "learning in hybrid learning environments, with a particular emphasis on its initial phase (the first four weeks). Action research provides the opportunity to develop new knowledge, gain insight into what works, and improve practice through an iterative process. During the roundtable, the methodology will be explained, and participants will be invited to share ideas regarding the challenges of implementing this research.

Participatory design research on the co-construction of cross-boundary learning environments

Keywords: Higher Education, Instructional Design and Instructional Strategies, Practice-based Research (methodology), Vocational Education

Presenting Author:Erica Bouw, HU University of Applied Sciences, Netherlands; **Co-Author:**Lisette Munneke, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Thieme Stap, Fontys University of Applied Science, Netherlands; **Co-Author:**Esther Wijma, Hogeschool Utrecht, Netherlands

This round table discussion will explore the challenges and opportunities of participatory design research aimed at uncovering mechanisms for effective co-construction of learning environments at the school-work boundary. We will share experiences of a research project that is being conducted in Dutch vocational education by researchers, practitioners and students from the context of both secondary vocational education (mbo) and higher professional education (hbo). At the table we'll discuss how the concept of 'co-construction' can be applied not only in the context of designing learning environments, but also within research itself, in line with a "practice what we preach" motto.

Session A 10

26 November 2024 10:30 - 12:00

B013 (PXL NeXT Building B)

Roundtable

Primary education

Innovative Practices for Educational Development

Keywords: At-risk Students, Communities of Learners and/or Practice, Educational Policy, Equality / Education for All, Innovations in Education, Knowledge Management for Teaching & Learning, Lifelong Learning

Interest group: CLOUD 02 - Educators' professional development

Chairperson: Kateryna Grabovets, Hanze University of Applied Sciences, Netherlands

Unpacking the problem of teacher shortages: Four perspectives

Keywords: At-risk Students, Educational Policy, Equality / Education for All, Innovations in Education

Presenting Author:Edith Roefs, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Frytskje Simonis, Windesheim University of Applied Sciences, Netherlands

In this round table session we wish to discuss the broader usefulness of a framework that distinguishes four different perspectives on the teacher shortages. We developed this framework based on an interview study among 40 actors in the context of urban education in Almere (the Netherlands). The purpose of the framework is critical consideration and planning of a.) (policy) measures addressing the teacher shortages and b.) practice-based research relevant to informing and investigating these (policy) measures. Choices for policies to address teacher shortages often reflect (political) views on what matters most and on what is considered to be the underlying problem. These views and opinions usually remain implicit. Inspired by the "What's the problem represented to be" (WPR) approach of Bacchi (2009), we aimed to make these perspectives on the teacher shortages explicit. Our research question was: What are the various perspectives of actors in the educational context of Almere (e.g. teachers, school leaders, policy advisors, teacher educators) on the teacher shortages? Data were collected from semi-structured interviews. Theoretical and inductive thematic was used to discern four different perspectives on the teacher shortages, which reflect a connection between particular causes, consequences and (policy) measures.

Teachers as brokers between innovation networks and school development

Keywords: Communities of Learners and/or Practice, Innovations in Education, Knowledge Management for Teaching & Learning, Lifelong Learning

Presenting Author:Henderijn Heldens, Zuyd University of Applied Sciences, Netherlands; **Presenting Author:**Anje Ros, Fontys University of Applied Sciences, Netherlands

Today's challenges in schools, such as providing high quality education for every child are complex. Expertise beyond teaching and learning is needed to develop inclusive learning environments in which pupils with all kinds of educational needs can flourish. Learning and innovation networks at the boundary of schools and school environment become more common. In such networks teachers, professionals in special needs and researchers collaborate on innovative solutions to support learning of all pupils in an inclusive learning environment. Leveraging knowledge from these networks for school improvement, so far, is little successful. Teachers have a unique opportunity to contribute to knowledge utilization from innovation networks in school development when they take-up a role as broker between innovation network and school. With this research we aim to contribute to a better use of the knowledge of brokers in the school for leveraging knowledge from innovation networks in teaching practice by a description of the role(s) of a broker the development of supportive tools to develop this role(s). In the session we discuss the broker role(s) using a prototype of a supportive tool and the setup of the study.

Session A 11

26 November 2024 10:30 - 12:00

Piot (PXL NeXT Building D)

Case study

Secondary education

Curriculum Design for Language Sensitivity and STEM Education in Teacher Training

Keywords: Continuing Professional Development in Teachers, In-service Teacher Training, Initial Teacher Education (Pre-service), School Development, Secondary School Education, STEM

Interest group: CLOUD 01 - Teacher education

Chairperson: Deborah Yapp, Leiden University of Applied Sciences, Netherlands

Designing curricula to educate language sensitive teachers (Ba) and teacher leaders (MEd).

Keywords: Continuing Professional Development in Teachers, In-service Teacher Training, Initial Teacher Education (Pre-service), School Development

Presenting Author: Mirjam Bruijne, Rotterdam University of Applied Sciences (Hogeschool Rotterdam), Netherlands

According to Dutch national educational standards for the contents of teacher education (Vereniging Hogescholen, 2017) and a trans-national language policy framework (Vanhooren & Wulfange, 2020) teachers of all disciplines and educational levels should be aware of the interrelatedness between language skills and development and successful content learning, and, in order to facilitate and stimulate deep subject learning, learn to apply didactic principles of content-and-language-integrated teaching. These standards pose challenges to schools and institutes for teacher education. At [Teacher trainer's institute X], these challenges inspired changes in the initial program for secondary education student teachers at Bachelor level, as well as the development of a new Master program for in-service teachers. Also, new forms of professionalization for teacher training staff were initiated, all directed at creating more language sensitive (future) educators.

In this CASE STUDY session, we would like to present the curricula of the two educational programs in a bit more detail and discuss their design principles, as well as some notable effects on language awareness of students, their internship schools and the teacher trainers institute, itself.

Developing STEM learning materials in networked Teacher Design and Research Teams: case Nanoworld

Keywords: In-service Teacher Training, Initial Teacher Education (Pre-service), Secondary School Education, STEM

Presenting Author: Katrien Vyvey, University College Leuven-Limburg, Belgium; **Presenting Author:** Renaat Frans, University College Leuven-Limburg, Belgium

In the University College Leuven-Limburg, campus Diepenbeek, students of the Teacher Education program develop STEM-projects in so-called networked Teacher Design and Research Teams (nTDRT). These teams consist of typically three pre-service teachers with different STEM content knowledge, one or two in-service teachers and a teacher trainer. The teams develop STEM learning materials according to the COOL methodology for iSTEM, implement these materials in a secondary school and investigate the quality of the implementation by Teacher Research. We will illustrate this training method for (pre-service and in-service) teachers by means of the case 'Nanoworld'. We show how the STEM-project 'Nanoworld' was developed, implemented and investigated by Teacher Research.

Session A 12

26 November 2024 10:30 - 12:00

B031 (PXL NeXT Building B)

Case study

Early childhood education

Strengthening Personalised Learning and Professional Development through Collaboration

Keywords: Communities of Learners and/or Practice, Continuing Professional Development in Teachers, Early Childhood Education, In-service Teacher Training, Professional Development, Technology Enhanced Learning

Interest group: CLOUD 02 - Educators' professional development, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Saar Steverlinck, Hogeschool PXL, Belgium

iXpact: Strengthening personalized learning with ICT as a collaborative knowledge community

Keywords: Communities of Learners and/or Practice, Continuing Professional Development in Teachers, Professional Development, Technology Enhanced Learning

Presenting Author: Wouter Rijke, Hogeschool van Arnhem en Nijmegen (HAN), Netherlands; **Co-Author:** Hilde Cuppen, HAN University of Applied Sciences, Netherlands; **Co-Author:** Manon van Zanten, iXperium Centre of Expertise Teaching and Learning with ICT, Netherlands

The iXpact initiative was launched to establish a cross-sectoral knowledge community of researchers, teacher trainers and practitioners to enhance evidence-informed innovation in education and teacher education regarding digitalization. iXpact focused on three topics: (1) ICT for personalized learning, (2) The organization of personalized education with ICT and (3) fostering digital literacy. Its objectives included gathering and expanding existing knowledge across various education sectors (primary, secondary, vocational, and higher education) and leveraging this knowledge to improve educational practices and teacher training. Across five work packages, iXpact worked on (1) setting up and strengthening the knowledge organization, (2) enhancing the articulation of knowledge needs, sharing knowledge, and utilizing it among educational partners, (3) empowering educational partners to self-direct in knowledge creation, (4) strengthening the role of leaders in articulating needs and utilizing knowledge, and (5) establishing a cross-sectoral infrastructure and community. iXpact successfully created a knowledge infrastructure and community. The community succeeded to collaborate on products, research initiatives and professional development for teachers and supervisors. For successful continuation of iXpact, we identified two main factors. First, physical meetings between community members contribute significantly to the community feeling. Second, to reduce dependency of institutions, a train-the-trainer concept could be implemented.

Teachers-Researchers Collaboration in Designing a Professional Learning Module

Keywords: Communities of Learners and/or Practice, Continuing Professional Development in Teachers, Early Childhood Education, In-service Teacher Training

Presenting Author: Sergei Glotov, University of Luxembourg, Luxembourg; **Co-Author:** Kerstin Te Heesen, University of Luxembourg, Luxembourg

This proposal takes a close look at the collaborative implementation of a professional learning module (onwards PLM) around STEAM. STEAM is an acronym that stands for interdisciplinary teaching/learning of Science, Technology, Engineering, Arts and Mathematics. Researchers have argued that Arts in STEM hold more relevance to children's learning and experiences and emphasises play and creativity in engaging with STEM disciplines (Tippett and Milford, 2017; Johnston et al., 2022). Thus, it is necessary to prepare early childhood educators to utilise and implement the STEAM approach in their practice. Recognising this, we developed a STEAM-focused PLM with early childhood teachers for early childhood teachers that was offered five times throughout 2023. This PLM was codesigned, piloted with children, and cotaught by a team of five in-service teachers and six university researchers. This case study explores and offers a critical reflection on structures of this teachers-researchers collaboration. We highlight the cyclical model of codesign (discuss-pilot-reflect), the practice of coteaching, teaching 'at the elbow of another' (Roth and Tobin, 2002), and structures of trust and togetherness shaped by dialogue. We conclude that merged together these practices ensure a contextually-responsive PLM and the community of teachers and researchers.

Session A 13

26 November 2024 10:30 - 12:00

B032 (PXL NeXT Building B)

Roundtable

Lifelong learning

Addressing Challenges in Mentoring and Educator Professionalisation

Keywords: Continuing Professional Development in Teachers, Diversity, Higher Education, Mentoring, Professional Development, Professionalisation of

Educators, Social Interaction, Work Environments

Interest group: CLOUD 02 - Educators' professional development, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Astrid Ottenheym, Radboud University, Netherlands

Navigating Noise in Functional Group Mentoring Programs: Understanding Challenges and Solutions

Keywords: Diversity, Mentoring, Social Interaction, Work Environments

Presenting Author: Tom De Schryver, Ministerie van Defensie - Nederlandse Defensie Academie, Netherlands; **Co-Author:** Zenobia Homan, King's College London, United Kingdom

In functional group mentoring programs, communication is often impacted by 'noise'. Noise can generally be defined as anything that stands in the way of effective communication. Both mentors or mentees might not be able or willing to exchange information required for meaningful interaction. In an international security context, mentoring programs suffer severely from noise. Participants from different countries may not have the freedom to fully express themselves. Instead, they may engage with mentoring programs because they want to learn as much as possible from the other participants without disclosing any first-hand information of their own. Hence, they strategically disclose information. While this position is a purely rational and optimal strategy for an individual state, it will have a detrimental impact on the communication dynamics and on the goals functional mentoring programs aim to achieve. To address this situation, noise requires priority in the instructional design of mentoring programs. Accordingly, in order to give practical advice to mentors on how to navigate noise in functional group mentoring programs, we draw on different models of communication. In particular, we compare situations in which experiences are considered complementary — with situations where past experiences lead to conflicting worldviews. We compare how communication problems are framed and contrast the solutions between scenarios.

Navigating Complexities Of Educator Professionalization: Implications on Program Design & Evaluation

Keywords: Continuing Professional Development in Teachers, Higher Education, Professional Development, Professionalisation of Educators

Presenting Author: Elke Emmers, Universiteit Hasselt, Belgium; **Co-Author:** Tom De Schryver, Ministerie van Defensie - Nederlandse Defensie Academie, Netherlands

At UHasselt, inclusiveness is an important norm that permeates the daily work of our higher education institution. Educators need to be aware of the norm and develop the skills to ensure inclusivity in their educational practice. Therefore, an intervention has been developed that aims to increase awareness, competence, and behavioural change towards more inclusive education for educators. This intervention has been developed that aims to increase awareness, competence, and behavioural change towards more inclusive education for educators. This intervention fits into a more general trend that calls for expanding the professional toolbox of responsible educators (e.g., Hauser, 2020). However, previous research has shown that these interventions are not always effective (Johnson et al., 2018). While there is a clear need for these types of interventions, potential implementation issues lead us to focus on the mechanics of a professionalisation intervention, as opposed to the typical focus in educational research on the rationale for such interventions or professionalisation programmes. It is imperative to pay more attention to the 'how' than to the 'why'. This presentation serves as a starting point for how to evaluate (practice perspective) and research (academic perspective) interventions aimed at increasing the toolkit of educators for inclusive education.

Session A 14

26 November 2024 10:30 - 12:00

Pierre Cox (PXL NeXT Building D)

Case study

Higher education

Enhancing Student Engagement: Community Service Learning and Syllabus Redesign

Keywords: 21st Century Learning, Artificial Intelligence, Higher Education, Internships, Project-based Learning, Teaching Approaches, Writing

Interest group:

Chairperson: Daniel Muijs, Queen's University Belfast, United Kingdom

Addressing societal and educational needs through Community Service Learning internship projects

Keywords: Artificial Intelligence, Higher Education, Internships, Project-based Learning

Presenting Author: Christina Stabourlos, UHasselt, Belgium; **Co-Author:** Jo Pierson, UHasselt, Belgium; **Co-Author:** Leen Swinnen, UHasselt, Belgium

The Social Sciences bachelor programme of a civic university engages students to facilitate social impact through a Community Service Learning (CSL) internship. The internship project aims to foster impactful learning experiences for students by enhancing their understanding of real-world contexts in an environment where they can grow in their role of social scientist and change making professionals. Students are able to choose a wide range of placement opportunities across various sectors such as non-profits, government agencies, media, culture, and social economy, with a focus on projects that provide societal value. Such organisations can foster positive change by engaging with (local) communities, leveraging resources and expertise. Directly and indirectly they play an important role in addressing societal needs and challenges. The CSL internship projects are in line with the university's commitment to regional development and civic engagement. In the academic year of 2024-2025 the first generation of third year students will take up the internship as part of the obligatory curriculum. The case study session will focus on the development of the internship as a mandatory course unit within the curriculum, student experiences, challenges and a preliminary impact assessment.

Syllabus Redesign Post Chat-GPT: A Case Study in Enhancing Student Engagement and Authenticity

Keywords: 21st Century Learning, Project-based Learning, Teaching Approaches, Writing

Presenting Author: Randa Bou-Mehdi, American University of Sharjah, United Arab Emirates

In response to the emergence of AI tools like ChatGPT, I redesigned the syllabus for my academic writing course to promote authentic student engagement and deter academic dishonesty. The course began with students developing a research proposal on a topic specifically relevant to them, focusing on issues related to teenagers. Students were asked to identify a problem in their surroundings and propose solutions, writing their papers in a problem-solution format. Additionally, students explored how ChatGPT can and cannot aid in the research process, enhancing their understanding of AI tools. Emphasizing information literacy throughout the semester, students were prepared to write a comprehensive research paper that required synthesizing multiple sources. This synthesis process added complexity, making it harder for AI tools to complete the task for them. Additionally, students created multimodal assignments—either a video or podcast—allowing them to explore their topics creatively and deeply. At the end of the semester, students reflected on their learning journey, providing valuable insights into their experiences. This case study discusses the rationale, implementation, and outcomes of these changes, highlighting the successes and challenges encountered. The redesigned syllabus successfully promoted student engagement and creativity, while ensuring the authenticity and integrity of their work.

Session A 15

26 November 2024 10:30 - 12:00

Blackbox (PXL NeXT Building D)

Workshop

Higher education

We Upgrade Together – The Professional Identity Game

Keywords: Higher Education, Motivation, Professional Development, Professional identity

Interest group: CLOUD 04 - Improving learning and well-being

In this workshop you will play the "We Upgrade Together" game. The game is designed for students at a University of Applied Sciences who are doing internships and is aimed at making their development of professional identity explicit. Through collaborative reflection on personal and professional identity, knowledge and skills, role models and experiences, students are tying this to who they aim to be in the future. At the end of the game students have decided on next steps to take to further their development. By participating in this workshop you will get to know the professional identity game and how different elements can affect professional identity development.

We Upgrade Together – The Professional Identity Game

Presenting Author: HZ University of Applied Sciences Kristie de Visser, HZ University of Applied Sciences, Netherlands

In this workshop you will play the "We Upgrade Together" game. The game is designed for students at a University of Applied Sciences who are doing internships and is aimed at making their development of professional identity explicit. Through collaborative reflection on personal and professional identity, knowledge and skills, role models and experiences, students are tying this to who they aim to be in the future. At the end of the game students have decided on next steps to take to further their development. By participating in this workshop you will get to know the professional identity game and how different elements can affect professional identity development.

Session B 1

26 November 2024 13:00 - 14:30

B012 (PXL NeXT Building B)

Workshop

Workplace learning

Game-Based Learning to Elicit and Improve Value Creation in Learning Communities

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Lifelong Learning, Stakeholder partnerships

Interest group: CLOUD 05 - HRD & Workplace learning

Recent advances in digital technologies profoundly influence our daily lives and work. While enabling solutions to societal issues, these technologies also demand new knowledge and skills from professionals. An increasingly common way for organizations to address this issue is to set up learning communities as a space in which (future) professionals of different backgrounds can work, learn, and innovate together. The CLIC-IT project explores how public-private learning communities can foster learning, collaboration, and innovation among participants and develop supportive methods and tools. One challenge faced by learning communities is making value creation and impact visible and enhancing it. To facilitate a dialogue on value creation and the mechanisms that produce value, we developed a serious board game. The game allows learning community participants to identify individual and collective mechanisms of value creation and fosters discussion on the collaboration's value. The workshop includes a brief introduction, followed by gameplay to experience the game's potential firsthand. Subsequently, the game experience will be discussed, and feedback will be collected to use for further refinement. Participants will walk away with an increased sense of the underlying mechanisms for value creation in interorganizational collaborations and new ideas to advance value creation in their own projects.

Game-Based Learning to Elicit and Improve Value Creation in Learning Communities

Presenting Author: Eelco Braad, Hanze University of Applied Sciences, Groningen, Netherlands; **Presenting Author:** Marieke Veltman, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** Peter Bos, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Danny Plass, Saxion University of Applied Sciences, Netherlands; **Co-Author:** Sjoerd de Vries, Saxion University of Applied Sciences, Netherlands

Recent advances in digital technologies profoundly influence our daily lives and work. While enabling solutions to societal issues, these technologies also demand new knowledge and skills from professionals. An increasingly common way for organizations to address this issue is to set up learning communities as a space in which (future) professionals of different backgrounds can work, learn, and innovate together. The CLIC-IT project explores how public-private learning communities can foster learning, collaboration, and innovation among participants and develop supportive methods and tools. One challenge faced by learning communities is making value creation and impact visible and enhancing it. To facilitate a dialogue on value creation and the mechanisms that produce value, we developed a serious board game. The game allows learning community participants to identify individual and collective mechanisms of value creation and fosters discussion on the collaboration's value. The workshop includes a brief introduction, followed by gameplay to experience the game's potential firsthand. Subsequently, the game experience will be discussed, and feedback will be collected to use for further refinement. Participants will walk away with an increased sense of the underlying mechanisms for value creation in interorganizational collaborations and new ideas to advance value creation in their own projects.

Session B 2

26 November 2024 13:00 - 14:30

EA 139 (PXL NeXT Building A)

Workshop

Early childhood education

How short observations of small talkers can significantly improve their chances to speak at school

Keywords: Continuing Professional Development in Teachers, Early Childhood Education, Interaction and Discourse in Education, Pre-school Education / Kindergarten

Interest group: CLOUD 02 - Educators' professional development

In this workshop we present a method to first observe the chances to speak children have in kindergarten and primary school, and second how to improve those chances. Teachers and parents are familiar with the fact that some children are very talkative, while others tend to remain silent for most of the day in school contexts. Reasons may vary: character traits (being extrovert or introvert), being fluent (or not) in the school language, being a confident or less confident child etc. Research has shown that oral language skills at a young age can predict school outcomes in later life (Giguere & Hoff, 2024; Kieffer 2012). Moreover, taking chances to express your thoughts, to participate in what is happening around you, is also key for developing social skills. Therefore, it is of the utmost importance to give all children in the classroom enough space and time to talk. We use video fragments in combination with an observation form to pay close attention to the chances that are offered to children. On the basis of those observations, we set up a plan of action to improve language interactions, both for teacher-child interaction and peer interaction.

How short observations of small talkers can significantly improve their chances to speak at school

Presenting Author: Sara Verbrugge, Odisee, Belgium

In this workshop we present a method to first observe the chances to speak children have in kindergarten and primary school, and second how to improve those chances. Teachers and parents are familiar with the fact that some children are very talkative, while others tend to remain silent for most of the day in school contexts. Reasons may vary: character traits (being extrovert or introvert), being fluent (or not) in the school language, being a confident or less confident child etc. Research has shown that oral language skills at a young age can predict school outcomes in later life (Giguere & Hoff, 2024; Kieffer 2012). Moreover, taking chances to express your thoughts, to participate in what is happening around you, is also key for developing social skills. Therefore, it is of the utmost importance to give all children in the classroom enough space and time to talk. We use video fragments in combination with an observation form to pay close attention to the chances that are offered to children. On the basis of those observations, we set up a plan of action to improve language interactions, both for teacher-child interaction and peer interaction.

Session B 3

26 November 2024 13:00 - 14:30
EA 138 (PXL NeXT Building A)
Workshop
Primary education

Play the inclusion game: integrating different types of education in The Netherlands.

Keywords: Beliefs and Conceptions of Teaching, Inclusivity, Special Educational Needs, Teacher Thinking

Interest group: CLOUD 08 - Diversity & equality in different contexts

Within the multi-track system of The Netherlands, there is a trend of different types of special schools working together towards one integrated school for specialized education. In the last three years, we conducted research on the development of these integrated schools and the benefits and pitfalls for teachers, teaching assistants, pupils, and parents. In this workshop, we'd like to play a reflection game that we developed as part of a toolbox to share knowledge gained in the study with the work field. In our workshop participants will learn about their attitude towards inclusion, their concerns, and the importance of cooperation within the school. Together with the participants, we would like to reflect on this and share knowledge on the subject of sharing knowledge from research.

Play the inclusion game: integrating different types of education in The Netherlands.

Presenting Author:Christy Tenback, RENNA, Netherlands; **Co-Author:**Anke de Boer, RENNA, Netherlands

Within the multi-track system of The Netherlands, there is a trend of different types of special schools working together towards one integrated school for specialized education. In the last three years, we conducted research on the development of these integrated schools and the benefits and pitfalls for teachers, teaching assistants, pupils, and parents. In this workshop, we'd like to play a reflection game that we developed as part of a toolbox to share knowledge gained in the study with the work field. In our workshop participants will learn about their attitude towards inclusion, their concerns, and the importance of cooperation within the school. Together with the participants, we would like to reflect on this and share knowledge on the subject of sharing knowledge from research.

Session B 4

26 November 2024 13:00 - 14:30
B011 (PXL NeXT Building B)
Workshop
Higher education

Creating your learning pathway as a practice-based researcher in a landscape of possibilities

Keywords: Higher Education, Practice-based Research (methodology), Professional Development, Training of Young Researchers

Interest group: CLOUD 11 - Practice-based Research Methodology

What does practice-based research entail and how can practice-based researchers be supported in their development? In this workshop, participants can work on creating their own learning pathway and identify development steps as a practice-based researcher. This will be done using the growth roadmap for practice-based researchers, an inspiration and discussion tool developed at Utrecht University of Applied Sciences that can provide insight into the various themes to deal with as a practice-based researcher (from junior to expert). The roadmap is intended to inspire practice-based researchers to think about or initiate a conversation (for example, with a fellow researcher or supervisor) about their own development. In addition, the roadmap can also be interesting at the team level, to start the conversation about where you stand as a team and in what direction you would like to develop. This interactive workshop not only gives participants the opportunity to work out their own learning pathway, but also offers opportunities to engage in a dialogue with other professionals about the possibilities to develop as a practice-based researcher.

Creating your learning pathway as a practice-based researcher in a landscape of possibilities

Presenting Author:Belinda Ommering, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Liesbeth Boers, HU University of Applied Sciences Utrecht, Netherlands

What does practice-based research entail and how can practice-based researchers be supported in their development? In this workshop, participants can work on creating their own learning pathway and identify development steps as a practice-based researcher. This will be done using the growth roadmap for practice-based researchers, an inspiration and discussion tool developed at Utrecht University of Applied Sciences that can provide insight into the various themes to deal with as a practice-based researcher (from junior to expert). The roadmap is intended to inspire practice-based researchers to think about or initiate a conversation (for example, with a fellow researcher or supervisor) about their own development. In addition, the roadmap can also be interesting at the team level, to start the conversation about where you stand as a team and in what direction you would like to develop. This interactive workshop not only gives participants the opportunity to work out their own learning pathway, but also offers opportunities to engage in a dialogue with other professionals about the possibilities to develop as a practice-based researcher.

Session B 5

26 November 2024 13:00 - 14:30
Pacioli (PXL NeXT Building D)
Workshop
Higher education

Mind your role! Creating more role awareness for boundary crossers

Keywords: Higher Education, Innovations in Education, Professionalisation of Educators, Workplace Learning

Interest group: CLOUD 05 - HRD & Workplace learning

Dutch universities of applied sciences invest in the development of learning communities in which higher education professionals collaborate intersectorally with partner organizations to address complex societal issues. These learning communities are becoming more and more important for innovative work based learning (iWBL) to enable students to actively engage in changing practices. As such iWBL organizes boundary crossing between school and society, education and research and different professional domains. Boundary crossing encourages stakeholders involved to leverage the differences and diversity they encounter, turning potential barriers into powerful learning opportunities. A decade of experimenting with learning communities in our own universities, learns that the role of the boundary crossers is pivotal but needs support. We designed several interventions to support the development of boundary crossers. Because the role of a boundary crosser is new, complex and process-oriented and the fact that boundary crossers find their identity in the university as well as the work practices, role awareness is one of the key aspects in these interventions. In this workshop, participants will gain increased awareness of the requirements and challenges of the boundary crossing role. Further, participants are invited to engage in learning activities that support professional development in this role.

Mind your role! Creating more role awareness for boundary crossers

Presenting Author:Aimee Hoeve, HAN University of Applied Sciences, Netherlands; **Presenting Author:**Marielle Taks, Fontys Hogescholen, Netherlands; **Co-Author:**Lotte Bus, HAN University of Applied Sciences, Netherlands; **Co-Author:**Jeroen Bovens, Fontys University of Applied Sciences School of Sport Studies, Netherlands; **Co-Author:**Nard van den Langenberg, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Loes Vos-Strijbos, HAN University of applied sciences Nijmegen, Netherlands

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partner organizations to address complex societal issues. These learning communities are becoming more and more important for innovative work based learning (iWBL) to enable students to actively engage in changing practices. As such iWBL organizes boundary crossing between school and society, education and research and different professional domains. Boundary crossing encourages stakeholders involved to leverage the differences and diversity they encounter, turning potential barriers into powerful learning opportunities. A decade of experimenting with learning communities in our own universities, learns that the role of the boundary crossers is pivotal but needs support. We designed several interventions to support the development of boundary crossers. Because the role of a boundary crosser is new, complex and process-oriented and the fact that boundary crossers find their identity in the university as well as the work practices, role awareness is one of the key aspects in these interventions. In this workshop, participants will gain increased awareness of the requirements and challenges of the boundary crossing role. Further, participants are invited to engage in learning activities that support professional development in this role.

Session B 6

26 November 2024 13:00 - 14:30

B031 (PXL NeXT Building B)

Workshop

Higher education

Working with UDL-design tool INclics

Keywords: Diversity, Inclusivity, Instructional Design and Instructional Strategies, Self-regulation and Self-regulated Learning

Interest group: CLOUD 01 - Teacher education

During this workshop you will have an opportunity to acquaint yourself with the prototype of the UDL design tool INclics. Universal Design for Learning (UDL) is an educational framework that supports designing flexible learning environments and instructional materials to accommodate the diverse needs, preferences, and abilities of all learners. After a short interactive presentation about the research phases that have led to the prototype you will get to work actively with the prototype. INclics can be used as an evaluation tool but also as a feed-forward instrument during the design phase of new educational material; during the workshop you will have the opportunity to explore both functions of the tool to discover if and how, in the future, the free tool may help you make your education more inclusive. The workshop will consist of a short interactive introduction via Nearpod, followed by a semi-structured hands-on workshop, during which participants will apply the tool to evaluate exemplary materials and/or courses of their own. The session will be rounded off with a short feedback round, the results of which will contribute to the prototyping research for this project.

Working with UDL-design tool INclics

Presenting Author: Roelien Wierda, NHL Stenden university of Applied Sciences, Netherlands; **Co-Author:** Ronald Barendsen, NHL Stenden University of Applied Sciences, Netherlands

During this workshop you will have an opportunity to acquaint yourself with the prototype of the UDL design tool INclics. Universal Design for Learning (UDL) is an educational framework that supports designing flexible learning environments and instructional materials to accommodate the diverse needs, preferences, and abilities of all learners. After a short interactive presentation about the research phases that have led to the prototype you will get to work actively with the prototype. INclics can be used as an evaluation tool but also as a feed-forward instrument during the design phase of new educational material; during the workshop you will have the opportunity to explore both functions of the tool to discover if and how, in the future, the free tool may help you make your education more inclusive. The workshop will consist of a short interactive introduction via Nearpod, followed by a semi-structured hands-on workshop, during which participants will apply the tool to evaluate exemplary materials and/or courses of their own. The session will be rounded off with a short feedback round, the results of which will contribute to the prototyping research for this project.

Session B 7

26 November 2024 13:00 - 14:30

Piot (PXL NeXT Building D)

EAPRIL Cloud Spotlight Session

CLOUD 11: Future directions and endeavors for cloud 11

Keywords: Practice-based Research (methodology), Professional Development, Research Cooperation Frameworks, School Development

Interest group: CLOUD 11 - Practice-based Research Methodology

Cloud 11, practice-based research methodology, has in recent years gained insights in the quality of practice-based research through reflection on and investigation of dilemmas faced by researchers and practitioners in practice-based research. Insights that we believe are worth taking further. What direction this can take and what exactly is worth investigating further is an important question for us. In this session we want to explore with the participants what applications and new directions of research are for our insights. We will do this by providing an overview of our recently submitted article presenting the insights and by offering and discussing our own suggestions for applications and follow-up research. To do so we use an appreciative feedback method that is rapidly emerging in several fields: the critical response process method.

CLOUD 11: Future directions and endeavors for cloud 11

Presenting Author: Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands; **Presenting Author:** Lisette Munneke, Utrecht University of Applied Sciences, Netherlands; **Co-Author:** Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands

Cloud 11, practice-based research methodology, has in recent years gained insights in the quality of practice-based research through reflection on and investigation of dilemmas faced by researchers and practitioners in practice-based research. Insights that we believe are worth taking further. What direction this can take and what exactly is worth investigating further is an important question for us. In this session we want to explore with the participants what applications and new directions of research are for our insights. We will do this by providing an overview of our recently submitted article presenting the insights and by offering and discussing our own suggestions for applications and follow-up research. To do so we use an appreciative feedback method that is rapidly emerging in several fields: the critical response process method.

Session B 8

26 November 2024 13:00 - 14:30

B032 (PXL NeXT Building B)

Workshop

Workplace learning

Video for deconstruction & reconstruction: building mental models through collaboration and dialogue

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, In-service Teacher Training, Initial Teacher Education (Pre-service)

Interest group: CLOUD 02 - Educators' professional development

The workshop focuses on recent research from Ambition Institute (2024) about the importance of teachers being able to use deconstruction of teaching techniques and how also giving teachers the opportunity to reconstruct strategies helps them build better models.

The workshop will focus on how we can use video film clubs to do this, as an effective model of collaborative professional development.

The aims of the workshop are to bridge the gap between research and practice with a practical strategy. It will be delivered through a structure using the four areas of what makes effective professional development. To begin with, there will be some knowledge building, with a short input on the key findings of the research. This will be followed by a short introduction to the IRIS Connect film club and how it links to the research. The two presenters will then model what a film club might look like, before giving attendees the chance to rehearse by taking part in an interactive film club deconstructing and reconstructing the practice. The final part will involve them creating an action plan of how they might use the strategy in their own settings.

Video for deconstruction & reconstruction: building mental models through collaboration and dialogue

Presenting Author: Haili Hughes, IRIS Connect, United Kingdom; **Co-Author:** Vesna Belogaska, IRIS Connect, United Kingdom

The workshop focuses on recent research from Ambition Institute (2024) about the importance of teachers being able to use deconstruction of teaching techniques and how also giving teachers the opportunity to reconstruct strategies helps them build better models.

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Session B 9

26 November 2024 13:00 - 14:30

Pierre Cox (PXL NeXT Building D)

EAPRIL Cloud Spotlight Session

Lifelong learning

CLOUD 10: Session 1 - Gaining perspective on and within Education for Sustainability

Keywords: Communities of Learners and/or Practice, Research-based Learning, Sustainability, Teaching Approaches

Interest group: CLOUD 10 - Education for Sustainability

How to care about the future? Different perspectives on Education for Sustainability. We face many complex and significant local and global challenges in the field of sustainable development. Learners need to develop the values, knowledge, skills, and attitudes to care about the future and to meet the challenges we are facing. In Cloud 10, the main question addressed is how to support students in this challenging task. In this first Cloud 10 spotlight session several Cloud members will share different perspectives on Education for Sustainability, and we will discuss these perspectives, based on a number of provocative statements. Using participatory and dialogical approaches, this spotlight session will support participants to reflect on their own Education for Sustainability practices, and to consider alternative or complimentary perspectives.

CLOUD 10: Session 1 - Gaining perspective on and within Education for Sustainability

Presenting Author: Stella van der Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:** Benjamin Mallon, Dublin City University, Ireland

How to care about the future? Different perspectives on Education for Sustainability. We face many complex and significant local and global challenges in the field of sustainable development. Learners need to develop the values, knowledge, skills, and attitudes to care about the future and to meet the challenges we are facing. In Cloud 10, the main question addressed is how to support students in this challenging task. In this first Cloud 10 spotlight session several Cloud members will share different perspectives on Education for Sustainability, and we will discuss these perspectives, based on a number of provocative statements. Using participatory and dialogical approaches, this spotlight session will support participants to reflect on their own Education for Sustainability practices, and to consider alternative or complimentary perspectives.

Session B 10

26 November 2024 13:00 - 14:30

Erlich (PXL NeXT Building D)

EAPRIL Cloud Spotlight Session

Workplace learning

CLOUD 05: Emotions and Workplace Learning

Keywords: Emotions and Emotional Development, Lifelong Learning, Professional Development, Workplace Learning

Interest group: CLOUD 05 - HRD & Workplace learning

AbstractCloud 5 Workplace Learning and HRD spotlight session: **Emotions and Workplace Learning.** Arnoud Evers & Sirpa Laitinen-Väänänen Emotions at the workplace has mainly been neglected previously; the general focus until now being rational and behavioral aspects in workplace learning (e.g. Hökkä, et al., 2020; Ashkanasy & Humphrey, 2011). However, in recent years studies on emotions at the workplace has attracted increasing research attention by several scholars (e.g., Ashkanasy & Kay 2023; Peterson et al. 2015). When we turn the focus on learning at workplaces, we emphasize both informal and formal learning, considering learners to be the employees, the employers, and the students who are conducting their learning periods at workplaces. In this Cloud 5 Workplace Learning and HRD spotlight session, which is organized as a symposium, the focus will be on research findings on the emotions involved in workplace learning especially emphasizing the employees' perspective. One aspect under our consideration is whether the shift from in-person work to online environments has affected employees' emotions, or are there other aspects in workplace learning that affect emotions?

CLOUD 05: Emotions and Workplace Learning

Presenting Author: Sirpa Laitinen-Väänänen, JAMK University of Applied Sciences, Finland; **Presenting Author:** Arnoud Evers, Open Universiteit, Netherlands

AbstractCloud 5 Workplace Learning and HRD spotlight session: **Emotions and Workplace Learning.** Arnoud Evers & Sirpa Laitinen-Väänänen Emotions at the workplace has mainly been neglected previously; the general focus until now being rational and behavioral aspects in workplace learning (e.g. Hökkä, et al., 2020; Ashkanasy & Humphrey, 2011). However, in recent years studies on emotions at the workplace has attracted increasing research attention by several scholars (e.g., Ashkanasy & Kay 2023; Peterson et al. 2015). When we turn the focus on learning at workplaces, we emphasize both informal and formal learning, considering learners to be the employees, the employers, and the students who are conducting their learning periods at workplaces. In this Cloud 5 Workplace Learning and HRD spotlight session, which is organized as a symposium, the focus will be on research findings on the emotions involved in workplace learning especially emphasizing the employees' perspective. One aspect under our consideration is whether the shift from in-person work to online environments has affected employees' emotions, or are there other aspects in workplace learning that affect emotions?

Session B 11

26 November 2024 13:00 - 14:30

B013 (PXL NeXT Building B)

Workshop

Higher education

Mastering a formative assessment culture through team collaboration in participatory action research

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Higher Education, Practice-based Research (methodology)

Interest group: CLOUD 01 - Teacher education

A significant shift has occurred in higher education (HE) from summative to formative assessment (FA), necessitating the need for HE teachers to engage in continuous professional development (PD) regarding FA. In this study, a teacher's team at a university of applied sciences investigated the implementation of FA and how this collaborative exploration contributes to professional growth. Additionally, from this study, insights can be gained regarding the process of seamless integration of research in our everyday work environment. We examined three key areas: a) the feasibility of implementing FA in the curriculum, b) the impact of the implementation process on the team's professional growth, and c) the role of participatory non-intrusive action research as a means to promote PD. The project adopted an emergent design approach and used art-based instruments and rapid analysis methods. The preliminary results offer insights into how inclusive and rapid research methods can resolve the discrepancy between urgent operational processes and the slower pace of research in the workplace. In the workshop we aim to collaboratively explore how this type of action research fosters professional development and how inclusive and rapid research methods can bridge the gap between 'fast and slow' processes in multiple contexts.

Mastering a formative assessment culture through team collaboration in participatory action research

Presenting Author:Jantien Gerdes, OSOF, Netherlands; **Co-Author:**Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Jeanet van Dam, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Peter Toorneman, Windesheim University of Applied Sciences, Netherlands;

Co-Author:Nikée Hogenboom, Windesheim University of Applied Sciences, Netherlands

A significant shift has occurred in higher education (HE) from summative to formative assessment (FA), necessitating the need for HE teachers to engage in continuous professional development (PD) regarding FA. In this study, a teacher's team at a university of applied sciences investigated the implementation of FA and how this collaborative exploration contributes to professional growth. Additionally, from this study, insights can be gained regarding the process of seamless integration of research in our everyday work environment. We examined three key areas: a) the feasibility of implementing FA in the curriculum, b) the impact of the implementation process on the team's professional growth, and c) the role of participatory non-intrusive action research as a means to promote PD. The project adopted an emergent design approach and used art-based instruments and rapid analysis methods. The preliminary results offer insights into how inclusive and rapid research methods can resolve the discrepancy between urgent operational processes and the slower pace of research in the workplace. In the workshop we aim to collaboratively explore how this type of action research fosters professional development and how inclusive and rapid research methods can bridge the gap between 'fast and slow' processes in multiple contexts.

Session B 12

26 November 2024 13:00 - 14:30

Montessori (PXL NeXT Building D)

Present & Discuss

Secondary education

Exploring Diversity and Equity in Secondary Education

Keywords: Diversity, Educational Policy, Equality / Education for All, Language Education, School Development, Secondary School Education, Work Environments

Interest group: CLOUD 08 - Diversity & equality in different contexts

Chairperson: Astrid Ottenheim, Radboud University, Netherlands

RichArt - Multilingualism as Richness and Art in secondary education

Keywords: Diversity, Equality / Education for All, Language Education, Secondary School Education

Presenting Author:Liesbeth Martens, University Colleges Leuven-Limburg (UCLL), Belgium; **Co-Author:**Reinhilde Pulinx, University College Leuven -Limburg, Belgium; **Co-Author:**Liesbeth Spanjers, UCLL, Belgium; **Co-Author:**Floor Klerkx, UCLL, Belgium; **Co-Author:**Laure Uyttenhove, UCLL, Belgium

In this project, we want to investigate whether bringing together and simultaneously tackling the three pillars of sustainable inclusion – being insight/culture, vision and didactics – leads to a fundamental change in dealing with the multilingual reality at school and in the classroom and thus contributes to high-quality education and equal educational opportunities for all children. To this end, we are implementing in four Flemish schools during two school years the RichArt intervention consisting of a professional learning community; the mapping of the languages present at school and the perception of multilingualism in the classroom and at school by teachers and pupils; and the implementation of a Lesson Study cycle. This study is ongoing research that will be completed in August 2025. At the conference we will present the main findings regarding the professional learning community on the one hand and the language mapping on the other. We will link these findings to policy recommendations at secondary school level and at Flemish policy level.

Predicting Teacher Attrition at the Secondary School Level

Keywords: Educational Policy, School Development, Secondary School Education, Work Environments

Presenting Author:Neline de Jong, Open Universiteit Nederland, Netherlands; **Co-Author:**Stefan Robbers, Open University Netherlands, Netherlands; **Co-Author:**Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands; **Co-Author:**Marjan Vermeulen, Heerlen Open Universiteit, Netherlands

Teacher attrition is a worldwide phenomenon and many teachers leave the profession before retirement. Teacher behaviour, such as developing an intention to leave, is influenced by individual and contextual (school) factors. A (theoretical) model explaining teacher behaviour at the school level can help, as on this level, organisational improvements can be implemented. The Self-Determination Theory, Integrated Model of Behaviour Prediction and a combination were compared with a survey among Dutch teachers (n=199) to identify their explaining value for teacher attrition. Significant variables were found in both models (Autonomy, Competence, Self-Determined Motivation, Attitude and Perceived norm), and the strongest correlations between Attitude and Perceived norm and teacher attrition were found in the Integrated Model of Behaviour Prediction, both leading to recommendations at the school level.

Session B 13

26 November 2024 13:00 - 14:30

Blackbox (PXL NeXT Building D)

Workshop

Higher education

Timeline tool: supporting the collaboration between educators, parents and youth care professionals

Keywords: Communities of Learners and/or Practice, Higher Education, Practice-based Research (methodology), Research-based Learning

Interest group: CLOUD 02 - Educators' professional development

Child Education and development depend on factors related to the characteristics of students, as well as their family, school and neighborhood contexts.

Achieving educational partnerships requires collaboration of those involved in students' lives at home and school. Collaboration between parents, schools, and youth care professionals is essential to provide appropriate support for children and their families. This collaboration allows the integration of varying perspectives on child education and development. It also enables the reciprocal reinforcement of parental and professional knowledge and skills. School staff and youth care professionals regularly feel challenged to involve parents in a constructive dialogue, especially in complex situations requiring specific support in education and development. We developed the Timeline tool to support the collaboration between schools, parents, and youth care professionals. In the workshop, participants learn to use the tool to map child education and development occurrences, the family setting, the history of support provided, and the collaboration with parents. Using the tool visualizes the different perspectives of parents and professionals relevant to making a declarative analysis and a subsequent integrated student support plan.

Timeline tool: supporting the collaboration between educators, parents and youth care professionals

Presenting Author:Mirjam Heemskerk, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Anne Steenbakkers, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Marion v.d. Sande, The Hague University of Applied Sciences, Netherlands

Child Education and development depend on factors related to the characteristics of students, as well as their family, school and neighborhood contexts. Achieving educational partnerships requires collaboration of those involved in students' lives at home and school. Collaboration between parents, schools, and youth care professionals is essential to provide appropriate support for children and their families. This collaboration allows the integration of varying perspectives on child education and development. It also enables the reciprocal reinforcement of parental and professional knowledge and skills. School staff and youth care professionals regularly feel challenged to involve parents in a constructive dialogue, especially in complex situations requiring specific support in education and development. We developed the Timeline tool to support the collaboration between schools, parents, and youth care professionals. In the workshop, participants learn to use the tool to map child education and development occurrences, the family setting, the history of support provided, and the collaboration with parents. Using the tool visualizes the different perspectives of parents and professionals relevant to making a declarative analysis and a subsequent integrated student support plan.

Session B 14

26 November 2024 13:00 - 14:30

B014 (PXL NeXT Building B)

Present & Discuss

Higher education

Collaborative Learning in Higher Education

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Distance Education, Higher Education, Initial Teacher Education (Pre-service), Inquiry Learning, Well-being & Engagement

Interest group: CLOUD 01 - Teacher education, CLOUD 04 - Improving learning and well-being

Chairperson: Anniek Orye, Belgium

Learning from big issues: a study on learning communities in various higher education contexts

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Higher Education, Inquiry Learning

Presenting Author:Greta de Wit - Rademaker, Christelijke Hogeschool Ede, Netherlands; **Co-Author:**Gert Jan Veerman, Christelijke Hogeschool Ede, Netherlands; **Co-Author:**Caroline Oosterwijk, Christelijke Hogeschool Ede, Netherlands

The graduation phase of Bachelor's degree programmes ideally lends itself to learning together with the professional field from complex issues within a Learning Community (LC). In this participatory research design, we worked together with lecturers from a medium-sized university of applied sciences to identify design principles for LCs based on four key concepts: (1) major issues, (2) student ownership, (3) participation of work field partners and (4) embedding in curriculum. What are typical statements in different contexts? Furthermore, how can context-specific factors be taken into account when encouraging LCs within a university of applied sciences? Through a cross-case analysis of practices across eight different programmes, differences and similarities with regard to four key concepts surrounding LCs were identified.

Initial analyses of interviews and products from working sessions show, among other things, that programmes that only have experience with homogeneous LCs particularly emphasise the student's freedom of choice and autonomy as a reason to be reluctant to work on issues linked to a knowledge agenda. By contrast, programmes that have been working in heterogeneous LCs with the professional field for an extended period, show student ownership based on outcomes and appreciation (pride in the result, contributing to practice improvement).

Micro-network teaching in reducing theory-practice gap in Norwegian teacher education

Keywords: Collaborative Learning, Higher Education, Initial Teacher Education (Pre-service), Inquiry Learning

Presenting Author:Minjeong Son, UiT The Arctic University of Norway, Norway; **Presenting Author:**Tove Holmbukt, Department of teacher education and pedagogy, Norway; **Co-Author:**Begnt Haugseth, Dept. of Education and Pedagogy, Norway

This study addresses the perennial theory-practice gap in teacher education (TEd) and investigates how the theory-practice gap is reduced through implementing micro-network teaching in the subjects, English and Music, in a Norwegian TEd program. The micro-network teaching is situated in an authentic classroom under a school-university partnership in which pre-service teachers try out theory (e.g., language teaching methods) and receive feedback on their teaching performance in a collegial reflection session where students, university teachers, and schoolteachers are all present. The micro-network teaching thus resembles the concept of "third-space" which has gained its popularity in teacher education research with an endeavor to strengthen the connection between theory and practice in TEd. Our findings from reflection sessions, students' reflection notes, and focus-group interviews indicate that micro-network teaching contributes to enhancing the theory-practice connection in teaching trials and students' reflection on their teaching performance. We further show that in order to foster students' understanding of the important interplay between theory and practice in the development of their teaching competence, certain conditions should be met when designing and implementing micro-network teaching, such as recycling of teaching strategies to be able to modify and improve teaching and concrete theoretical concepts to be tested in teaching trials.

How to support students during online group work? Co-creating the support with students and teachers

Keywords: Collaborative Learning, Distance Education, Higher Education, Well-being & Engagement

Presenting Author:Sabrina Hassane, 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:**slavi stoyanov, Open University of the Netherlands, Netherlands

Successful collaborative learning is not always guaranteed as it is associated with many issues, specifically those related to social-emotional challenges. Therefore, students need support during their group work to prevent or deal with these specific issues. The research question is: How can we support students in addressing socio-emotional issues during online group learning? The Group concept mapping (GCM) method was used to answer this question. The analyses resulted in a conceptual map containing six themes for group work support, namely: training of collaborative skills, group emotion regulation, socializing and evaluating, course design, online supporting tools, and teacher moderation. Training of collaborative skills and course design were the most important and most feasible themes according to the participants. In conclusion, the conceptual model forms a basis for a co-creational design that is based on students' and teachers' perspectives to support online group work.

Session C 1

26 November 2024 14:45 - 16:15

Piot (PXL NeXT Building D)

Poster Presentation

Primary education

Innovative Strategies for Enhancing Learning in Primary Education

Keywords: Assessment and evaluation, Continuing Professional Development in Teachers, Emotions and Emotional Development, Language Education, Learning Styles / Approaches, Mathematics Education, Numeracy, Practice-based Research (methodology), Primary School Education, Research-based Learning, STEM

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: Christina Misailidou, National and Kapodistrian University of Athens, Greece

Learning the Multiplication Table Facts using Retrieval Practice

Keywords: Mathematics Education, Practice-based Research (methodology), Primary School Education, Research-based Learning

Presenting Author:Fieke Ophuis-Cox, Open University of the Netherlands, Netherlands; **Co-Author:**Leen Catrysse, Open Universiteit, Department of Online Learning and Instruction, Belgium; **Co-Author:**Gino Camp, Open Universiteit, Department of Online Learning and Instruction, Netherlands

Fluently retrieving simple multiplication facts leads to an improvement of overall math scores. In the current study, we investigated how to best reach this fluency in an authentic elementary school setting. We compared the short-term and long-term effects of the learning strategies retrieval practice (using flashcards) to a restudy control condition (chanting multiplication facts out loud) on multiplication fact fluency. Forty-eight second grade pupils received an instruction lesson and attended three spaced practice sessions per learning strategy. The learning strategies were counterbalanced across two different sets of multiplication tables in a within-subjects design. A pre-test, a five-minute delay post-test and a one-week delay post-test were administered. Compared to restudy, retrieval practice led to a stronger short-term and long-term increase in the fluency of retrieving multiplication facts. This study demonstrates the effectiveness of retrieval practice on gaining multiplication fact fluency in an authentic classroom setting using original course materials.

Testing Science Differentiation Practices in Primary School

Keywords: Continuing Professional Development in Teachers, Learning Styles / Approaches, Primary School Education, STEM

Presenting Author:sien coenen, Karel De Grote University College, Belgium

TIMSS 2019 showed a widening discrepancy between higher and lower scoring students in Flanders, accompanied by a general decline in results. A deliberate focus on differentiation practices becomes crucial. Consequently, our research question emerges: How can we implement suitable differentiation practices for science education in schools? Our methodology involved several steps. 1) In-depth interviews were conducted to identify thresholds, good practices, and needs related to differentiation in science education. 2) Subsequently, focus groups were organized where thresholds were translated into actions that can be implemented in class. Notably, one such action aimed to enhance student motivation. Teachers tailored their teaching approaches based on student interests. In a history class, students were given the autonomy to choose a specific time period for their presentations. The success of this approach was evident, as all teachers acknowledged that they had not previously focused on differentiation in sciences—instead, their attention had primarily been directed toward differentiation in mathematics and Dutch. Importantly, the act of participating in this study and translating thresholds into actions motivated teachers to embrace differentiation in science classes. This research contributes to the ongoing discourse on effective science education and underscores the significance of tailored approaches to meet diverse student needs.

Language and emotional skills in pre-primary classes: A language-integrated emotion intervention

Keywords: Assessment and evaluation, Emotions and Emotional Development, Language Education, Primary School Education

Presenting Author:Christin Tekath, Universität Siegen, Germany; **Co-Author:**Irene Corvacho del Toro, University of Siegen, Germany; **Co-Author:**Miriam Hansen, Goethe-Universität Frankfurt, Germany; **Co-Author:**Arianne Andreas, Goethe-Universität Frankfurt, Germany; **Co-Author:**Mirjam Menz, Goethe-Universität Frankfurt, Germany

The BMBF-funded SEM project aims to enhance language and emotional skills among children with heterogeneous needs in pre-primary classes in Hesse to facilitate their transition to regular schooling. Despite the existence of pre-primary classes since 1953, research on children's learning development in these classes has been scarce. Language skills are crucial for educational participation and emotional development, influencing various areas such as emotional knowledge and regulation. The SEM study employs a pre-post follow-up design with an intervention group and a waiting control group with alternative treatment, focusing on language, emotional, and mathematical skills. The language-integrated emotion intervention, conducted by pre-primary teachers over twelve weeks, targets emotional perception as well as identification, expression, and regulation of emotions alongside relevant vocabulary. Preliminary results indicate a significant improvement in emotional skills following the intervention. Language skills were below average at the initial measurement point, highlighting the necessity for language support. While the language-integrated emotion intervention appears promising, a final evaluation awaits completion of all measurement points. This study underscores the importance of early intervention to enhance language and emotional skills among pre-primary and early primary children, facilitating their educational success.

Applying the multimedia and signalling principle to computer-based math word problems.

Keywords: Assessment and evaluation, Mathematics Education, Numeracy, Primary School Education

Presenting Author:Tamara Schleepen, Open Universiteit, Department of Online Learning and Instruction, Netherlands

With the advent of technological innovations over the past years, computer-based testing (CBT) is increasingly used in education. Compared to paper-based testing, an advantage of CBT is that text-only questions can be easily enriched with multimedia such as pictures. Yet, in contrast to multimedia learning, research on multimedia testing is still in its infancy. Therefore, the present study investigated how two evidence-informed multimedia learning principles (i.e. the multimedia principle and the signaling principle), increases item performance in CBT in math word problems. Data collection is still ongoing. Participants are 11-12 year-old children who will be administered twelve math word problems presented via a digital assessment tool. There are three different conditions of each math word problem (i.e. within-subject factor test item design): 1) math word problems designed according to the multimedia principle, 2) math word problems designed according to the signaling principle, 3) original math word problems without multimedia. Participants are randomly assigned to one of the three conditions. Dependent variable is item difficulty. The data will be analyzed by means of a repeated measures analysis. The results of this study will provide important insights for the design of CBT in education using pictures.

Session C 2

26 November 2024 14:45 - 16:15

Blackbox (PXL NeXT Building D)

Poster Presentation

Primary education

Resilience and Collaboration in Education: Strategies for Growth and Engagement

Keywords: Communities of Learners and/or Practice, Early Childhood Education, Educational Effectiveness and Quality of Education, Emotions and Emotional Development, Equality / Education for All, In-service Teacher Training, Learning and Developmental Difficulties/Disabilities, Professional Development, Teaching Approaches, Well-being & Engagement

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being

Chairperson: Ning Ding, Hanze University of Applied Sciences, Netherlands

Building adolescents' resilience: Evaluating the impact of a 20-week inner-city program

Keywords: Educational Effectiveness and Quality of Education, Emotions and Emotional Development, Equality / Education for All, Well-being & Engagement
Presenting Author: yuhan hu, Erasmus University Rotterdam, Netherlands; **Co-Author:** Ruth Van der Hallen, Erasmus University Rotterdam, Netherlands; **Co-Author:** Brian P. Godor, Sport Impacx, Netherlands; **Co-Author:** Marloes Nederhand, Erasmus University Rotterdam, Netherlands; **Co-Author:** Guus Smeets, Erasmus University Rotterdam, Netherlands

Abstract: Adolescence constitutes an important phase in human development, characterized by accelerated growth and intense psychological changes. However, for adolescents living in inner-city environments, positive development may be especially difficult. They are more likely to experience sedentary lifestyles, encounter academic dysfunction, and suffer from socio-emotional difficulties due to adverse ecological factors, such as a lack of resources or exposure to violence. The current study conducted a 20-week program to enhance the resilience of these adolescents and evaluate whether this program can effectively improve their resilience. A total of 134 adolescents from inner-city schools in Rotterdam, the Netherlands, participated in the program (58% male; $M_{age} = 11.20, SD = 1.04$). Two MANCOVA analyses were performed to assess the program's effectiveness, either among all adolescents or among lower-scoring adolescents. School, age, and gender were included as covariates. Using the Resiliency Scales for Children & Adolescents (RSCA), the results indicate that this program significantly enhanced adolescents' Sense of Relatedness ($p < .001$), particularly for the subgroup of adolescents with low resilience at T0. Taken together, these findings provide preliminary evidence of the effectiveness of our program in enhancing resilience among inner-city adolescents, in particular, adolescents with low resilience.

Ecosystem awareness through teachers' multiple-perspective-taking handling disruptive behavior

Keywords: Educational Effectiveness and Quality of Education, Learning and Developmental Difficulties/Disabilities, Professional Development, Teaching Approaches

Presenting Author: Astrid Ottenheim, Radboud University, Netherlands; **Co-Author:** Marion van Hattum, HAN University of Applied Sciences, Netherlands; **Co-Author:** Hanna Swaab, Leiden University, Netherlands; **Co-Author:** Wouter Staal, Radboud University Nijmegen, Netherlands

Despite the network of interactions in the open learning environment, teachers often interpret student behavior in a reductionistic way with minimal consideration of the context. Furthermore, teachers generally find disruptive classroom behavior demanding; it can bias their interpretation of the behavior, possibly with a self-fulfilling down-cycle effect on both the student and the teacher. Multi-perspective-taking seems to stimulate awareness of biases and see student behavior within the pedagogical ecosystem. This study explored the effect of teacher training in multiple-perspective-taking on teachers' self-efficacy, perspective of student behavior and interaction with the student, and the application of perspective-taking in student reports. It used a mixed-method design, and 29 teachers participated with their chosen 57 dyad students with disruptive behavior in multiple measurements before and after the training. This relatively new approach showed opportunities for research and teaching practice. It observed positive effects on teachers' beliefs about student behavior and teachers' capacities. The teachers said that the training differed from what they were used to, but it helped them broaden their insight into handling student behavior. Also, the study revealed limitations and contains suggestions for improving teachers' interactions with disruptive behavior.

Cultivating Teacher Communities: Enhancing Science Education through Collaborative Practices

Keywords: Communities of Learners and/or Practice, Early Childhood Education, In-service Teacher Training, Professional Development

Presenting Author: Melanie Jorge, University of Luxembourg, Luxembourg; **Co-Author:** Christina Siry, The University of Luxembourg, Luxembourg

The following Project, which is part of a teaching center, focuses on enhancing primary science education through collaborative and innovative practices. This presentation provides an overview of the project's objectives, methodology, and initial findings. By fostering a community of practice among in-service primary school teachers and science education specialists, the project aims to analyze the impacts of co-teaching and collaborative development on teacher learning. Through qualitative research methods including interviews, observations, and reflective analysis, the project explores how these cooperative environments influence teaching methodologies and contribute to teachers' professional growth. The insights gained from this project have the potential to inform and improve science education practices globally.

Session C 3

26 November 2024 14:45 - 16:15
Montessori (PXL NeXT Building D)
Poster Presentation

Early childhood education, Lifelong learning, Primary education, Secondary education

Fostering Inclusivity and Sustainability in Education

Keywords: Bilingual Education, Inclusivity, Lifelong Learning, Practice-based Research (methodology), Pre-school Education / Kindergarten, Primary School Education, Professionalisation of Educators, Project-based Learning, Secondary School Education, Self-efficacy, Sustainability, Technology Enhanced Learning
Interest group: CLOUD 08 - Diversity & equality in different contexts, CLOUD 10 - Education for Sustainability

Chairperson: Karen Reekmans, Hogeschool PXL, Belgium

Teacher & healthcare professional on a path to more inclusive education

Keywords: Inclusivity, Primary School Education, Professionalisation of Educators, Secondary School Education

Presenting Author: Lies Lockefeer, HoGent, Belgium; **Co-Author:** Britt Zaman, HoGent, Belgium

The research project concerns an intervention study on the effect of using a practice-based tool in complementary co-teaching between teachers and trainee care professionals. The trainee care professionals are students from the bachelor's programs in orthopedagogy or occupational therapy who are deployed in the classroom. The tool, called a "Routeplanner", focuses on both the conditions of co-teaching and on action-oriented work with a class. The research questions central to this project are: 1. How does the "Routeplanner" facilitate the role of the trainee care professional as a co-teacher in a classroom? 2. Two focus groups with the trainee care professionals b. Two focus groups with the supervisors at the college of the trainee care professionals

During the period of April to June 2024. What impact does the "Routeplanner" have on teacher skills for effective teaching? a. One semi-structured interview with the teachers after the trainee care professional's internship

In June 2024 3. Is this impact sustainable? a. One semi-structured interview with the teachers after a period without co-teaching with the trainee care professional

In September-October 2024 Currently, there are no research results available. However, these results, along with (preliminary) insights for educational practice, will be available at the conference in November 2024.

An analysis of transformations accomplished through transformative learning within school practices.

Keywords: Primary School Education, Project-based Learning, Secondary School Education, Sustainability

Presenting Author: TOMONORI ICHINOSE, National University Corporation Miyagi University of Education, Japan

Recently, there has been a growing emphasis on transformative learning in the field of education. To what extent are students expected to contribute to this social transformation? What forms of commitment to social transformation are observed? Data were collected from 20 cases presented at the UNESCO ASPnet school local meeting in Japan in 2022, 2023. The observed patterns of transformative action include students expressing their transformed awareness to others, teaching younger students to promote behavior change, presenting ideas at local festivals, demonstrating physically at recitals, creating and displaying posters to advocate for social change, and participating in community board meetings to voice opinions. These actions signify students' evolving consciousness through

learning and their efforts to inspire change in others. Additionally, transformative actions involve developing sustainable products, apps, new materials, and scientific methods aimed at altering the environment. These initiatives reflect students' transforming awareness and their proactive development of innovative solutions to drive societal transformation. Social transformation cannot be achieved within the timeframe of project-based learning. Therefore, the experience of committing to social transformation over time is crucial. Teachers should focus on and evaluate the process of students' transformative learning.

Including the elderly through digital empowerment coming from connecting generations

Keywords: Inclusivity, Lifelong Learning, Practice-based Research (methodology), Self-efficacy

Presenting Author: Ildiko Van Rillaer, UC Leuven-Limburg, Belgium

BETA project (Bridges for Intergenerational Approach) aims to foster the digital inclusion of the elderly through intergenerational activities that increase their digital skills. Seniors are often regarded as digitally vulnerable people (Digital Inclusion Barometer, 2022) while children are seen as digital natives, though they also often lack digital confidence (Digital Inclusion Barometer, 2022). Seniors with low digital literacy also risk social exclusion (Seifert, Cotten & Xie, 2020). We conducted a survey in 4 countries to ask seniors about their digital habits, needs, challenges and interests, not only to design and develop intergenerational activities but also to build an informative and entertaining platform for seniors. We also looked at initiatives in 5 European countries that facilitated digital knowledge transfer between children or young adults and seniors during planned group activities. The answers we received were in some cases very similar across the participating countries, in other cases very different. For example, smartphones were equally popular, however, the digital confidence of seniors varied. Based on our results we proposed intergenerational activities that are currently being tested in Cyprus, Italy and Greece and we are building a platform for seniors.

Babel bear: A tool for supporting newcomers and young multilingual children

Keywords: Bilingual Education, Inclusivity, Pre-school Education / Kindergarten, Technology Enhanced Learning

Presenting Author: Rianne van den Berghe, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:** Charikleia Sparou, Radboud University, Netherlands; **Co-Author:** Elma Blom, Utrecht University, Netherlands

The Babel-bear project, starting in September 2024, is aimed at developing and evaluating a tool to support multilingual children in schools. The project is a collaboration between Dutch kindergartens, a teacher training college, the national research lab AI and a university. The kindergartens involved in the project see an influx in children who are learning Dutch and face language barriers. The goal of the project is to develop a tool that supports children during such situations and increases their participation in classroom activities. The project will consist of three phases, in which 1) insight into the challenges newcomers and multilingual children face in schools will be gathered, 2) a prototype will be developed in co-creation with the kindergarten teachers, and 3) the prototype will be evaluated. Any feedback on the design on the project and the prototype that is to be developed, is welcomed.

Session C 4

26 November 2024 14:45 - 16:15

Corbu (PXL NeXT Building D)

Poster Presentation

Higher education

Enhancing Self-Regulation and Collaboration in Higher Education

Keywords: 21st Century Learning, At-risk Students, Collaborative Learning, Cooperative Learning, Educational Attainment & Achievement, Higher Education, Learning and Neuroscience, Mentoring, Peer Interaction / Learning, Self-regulation and Self-regulated Learning, STEM

Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Daniel Muijs, Queen's University Belfast, United Kingdom

STEM Drop-Outs: The Role of Executive Functions and Self-Regulated Learning in Higher Education

Keywords: Higher Education, Learning and Neuroscience, Self-regulation and Self-regulated Learning, STEM

Presenting Author: Bianca Claus, Avans University of applied science, Netherlands; **Co-Author:** Celeste Meijs, Open University, Netherlands; **Co-Author:** Peter Verkoeljen, Avans Hogeschool, University of Applied Sciences, Netherlands; **Co-Author:** Renate de Groot, Open University of the Netherlands, Netherlands

First year drop-out rates in higher education are high. For STEM-courses (Science, Technology, Engineering, Mathematics) this is worrisome because of the growing yearly gap of approximately 9.5% between supply and demand in the labor market. Since successful studying in higher education requires proper development of self-regulation (SRL) and the potentially underlying executive functions (EF), it is important to investigate (1) the predictive value of the development of the EF (inhibition, working memory, cognitive flexibility) in the use of SRL for students in higher education, corrected for sex, age and STEM vs non-STEM and (2) how this is associated with drop-out to ultimately develop successful interventions. This study has a longitudinal observational design. At baseline (start academic year) EFs are assessed using the BRIEF-Adult and SRL using the SRL-O. Data regarding age, sex, and STEM vs. non-STEM are collected. At follow-up (start second academic year) drop-out data are collected. 137 students from universities of applied sciences are included in the study. During the poster presentation the results from research question 1 are presented. The ultimate goal is to adjust educational didactics to the development of EFs and SRL and herewith to reduce drop-out rates, especially in STEM-studies.

Mapping and supporting self-regulatory skills of first-year professional bachelor students

Keywords: At-risk Students, Educational Attainment & Achievement, Higher Education, Self-regulation and Self-regulated Learning

Presenting Author: Charlotte Malengier, HoGent, Belgium; **Co-Author:** Nathalie Schepens, HoGent, Belgium; **Co-Author:** Sonia Labeau, HoGent, Belgium

Self-regulated learning is the cyclical process in which learners direct their behaviour, thoughts, feelings and motivation in order to achieve their learning goals. Students starting higher education are expected to have a high degree of independence in terms of study planning, and in processing and applying learning content. However, not every student already fully possesses the thereto required self-regulatory skills. Numerous studies result in the recommendation that teachers should focus on supporting their further development. The primary aim of this currently ongoing quantitative study is to map the (evolution of) self-regulatory skills of first-year professional bachelor students at HOGENT by inviting an as large as possible convenience sample to complete a newly developed self-reporting measuring scale at three moments throughout the academic year. The validity and reliability of the instrument will be assessed based on the data obtained. We additionally aim to contribute to supporting the development of students' self-regulated learning skills by administering an intervention, specifically developed for this project and based on the combination of direct instruction, an online student diary, and motivational messages, to a randomised sample of first-year professional bachelor students Social Education Care Work. The effectiveness of the intervention will also be investigated.

Do engineering students actively opt to engage in multidisciplinary collaboration?

Keywords: 21st Century Learning, Collaborative Learning, Cooperative Learning, Higher Education

Presenting Author: Margot Ploumen, Avans University of applied science, Netherlands; **Co-Author:** Elisabeth Roskam - Pelgrim, Avans University of Applied Sciences, Netherlands

At Avans University of Applied Sciences, students engage in various collaborative activities, but it's unclear whether they actively seek out interdisciplinary experiences. This research explores students' views on collaboration, focusing on their intentions and outcomes. Through qualitative research with third and fourth-year students in multidisciplinary minors, we investigate their evolving attitudes. Preliminary findings suggest an initial preference for technical projects, but students increasingly value collaboration with peers from diverse backgrounds, intending to apply these skills in future endeavors.

Collaborative learning in peer mentoring in digital collaboration spaces.

Keywords: Collaborative Learning, Higher Education, Mentoring, Peer Interaction / Learning

Presenting Author: Florian Müller, TH Rosenheim, University of Applied Sciences, Germany; **Presenting Author:** Andrea Gergen, Technische Hochschule Rosenheim, Germany; **Co-Author:** Edeltraud Botzum, TH Rosenheim, Germany; **Co-Author:** Madeleine Dörr, TH Rosenheim, Germany

This interactive poster is intended to present the possibilities of using digital tools (e.g. Zoom whiteboard) in collaboration rooms for digital university teaching. The starting point is the teaching research project "digi.peer" at TH Rosenheim, in which students in the social work course use digital peer mentoring to prepare their BA thesis. The focus of the project, funded by the "Innovation in University Teaching" (STIL) foundation, is testing and doing research on collaborative learning and work processes in university didactics and methodology, with the shared learning process at the center. This means that the concept of digital collaborative learning goes beyond the conventional understanding of collaboration.

Session C 5

26 November 2024 14:45 - 16:15

Erlich (PXL NeXT Building D)

Poster Presentation

Higher education, Secondary education

Integrating Skills and Well-Being in Higher and Secondary Education

Keywords: 21st Century Learning, Blended Learning, Collaborative Learning, Culture and Education, Curricula, Educational Policy, Medical & Health Education, Secondary School Education, STEM, Well-being & Engagement

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Tom De Schryver, Netherlands

Integrating future skills in a co-creation process into education in Nepal - Preliminary Results

Keywords: 21st Century Learning, Collaborative Learning, Culture and Education, Curricula

Presenting Author:Eila Burns, JAMK University of Applied Sciences, Jyväskylä, Finland; **Co-Author:**Usha Acharya, Nepal Open University, Nepal; **Co-Author:**Kalpana Gyawali, Tribhuvan University, Nepal

Our research in Nepal, a country facing many educational challenges, particularly for women and ethnic minorities, aims to improve pedagogical quality and access to higher education. Our ongoing small-scale research, conducted as part of the Developing Pedagogy for 21st Century Skills in Nepal project, explores the impact of co-creation of new educational programmes in two universities. We are investigating, firstly, if this approach enhances pedagogical quality in integrating future skills in new education courses. And secondly if the created programmes improve access for disadvantaged groups in Nepal. At the time of writing, quantitative feedback of the courses was collected digitally and was analysed using the IBM SPSS Statistics programme. A key observation is the slow transition between traditional teacher-led learning culture, and a digital student-centred approach. This observation was noted in terms of excessive number of tasks and reading materials relative to course credits. Some increase in number of females was notified from remote areas participating in the programme. However, a more comprehensive analysis will be conducted once more data is collected by the Nepalese partners in late spring 2024. This research contributes to the broader goal of enhancing education in one of the world's poorest countries.

PhD-project: prevention of and response to sexual violence in Flemish secondary schools

Keywords: Collaborative Learning, Medical & Health Education, Secondary School Education, Well-being & Engagement

Presenting Author:Renske Geens, Vrije Universiteit Brussel, Belgium; **Co-Author:**Els Consuegra, Vrije Universiteit Brussel, Belgium

This poster will present a PhD-project. The project seeks to achieve two main objectives: assessing the effectiveness of a multiple-session sexual health education intervention in early adolescence within Flemish secondary schools, and exploring collaborative approaches between schools and external stakeholders to respond to sexual violence experienced by students. This project aims to design, implement, and assess the effectiveness of a sexual health literacy program that is responsive to the diverse needs of students in culturally diverse secondary schools. This will be evaluated through a quasi-experimental design with a previously validated pretest to assess the baseline and post-test to determine if the intervention program enhances sexual health literacy. Our project aims to establish a network surrounding the school to facilitate multi-disciplinary and multi-stakeholder responses to sexual violence via a multiple case study to investigate the factors that facilitate and hinder the collaboration of multiple stakeholders in responding to sexual violence experienced by a student within or outside of the school. This project advances an underexplored research area that integrates literature on sexual violence and gender-based violence, aligning with the dual approach: emphasizing and enhancing the competencies of youngsters while adapting structures and reinforcing the skills of teachers and other key stakeholders.

Unlocking Opportunities: Integrating NOS Education into the Flemish High School Science Curriculum

Keywords: Curricula, Educational Policy, Secondary School Education, STEM

Presenting Author:Lotte Boven, University of Antwerp, Belgium; **Co-Author:**Rianne Pinxten, University of Antwerp, Belgium; **Co-Author:**Peter Van Petegem, University of Antwerp, Belgium

Nature of science education is crucial for enhancing science literacy among students. As Flanders is experiencing a decline in science literacy among adolescents, focusing on better Nature of Science education seems evident. Despite its significance, integrating Nature of Science education within the Flemish high school lessons remains a challenge due to its absence in the governmental science curriculum. The timing of this study is particularly pertinent as Flanders has recently finalized a curriculum reform. Therefore, this research aims to identify opportunities for integrating Nature of Science education within the current Flemish high school science curriculum and to look for changes in discourse on Nature of Science when comparing the current and the former curriculum. Through qualitative content analysis of the curriculum using a framework based on the family resemblance model of Nature of Science, theme switches between the two curriculums will be displayed, and avenues for incorporating Nature of Science education in the current curriculum will be explored. The study will offer practical suggestions for teachers to integrate nature of science aspects into their lessons, aligning with official curriculum requirements. This research provides insights for educators seeking to enhance science literacy despite curriculum constraints.

A model for Blended STEM Didactics in Teacher Educator Programs

Keywords: Blended Learning, Collaborative Learning, Secondary School Education, STEM

Presenting Author:Iris Stiers, Vrije Universiteit Brussel (VUB), Belgium; **Co-Author:**Renaat Frans, University Colleges Leuven Limburg, Belgium; **Co-Author:**Lies Noppen, Vrije Universiteit Brussel (VUB), Belgium; **Co-Author:**Jo Tondeur, Vrije Universiteit Brussel, Belgium; **Co-Author:**Ilse Ooghe, Brightlab, Belgium; **Co-Author:**Katrien Vyvey, University Colleges Leuven Limburg, Belgium

*There is a growing need for an educational approach that effectively combines integrated STEM with blended learning. This demand stems from a labor market that increasingly seeks individuals with STEM skills who are able to apply their knowledge across multiple domains to tackle current societal challenges. Our aim is to equip teachers and teacher educators with effective strategies for blended STEM education. To address this, we developed the LOB-STEM model (in Dutch: *Leraren Opleiden in Blended STEM*), which merges the benefits of blended learning with the principles of integrated STEM education. The model consists of three key components: STEM knowledge, blended learning, and teacher research. In this framework, pre- and in-service teachers collaborated in Teacher Design Teams (TDT) to (re)design ICT-rich STEM materials. They also explored the implementation of these materials through teacher research. The result is the interactive website, "Blended STEM," which features a suite of blended learning materials, findings from the teacher research, and practical assignments for use in teacher education programs.*

Session C 6

26 November 2024 14:45 - 16:15

Pierre Cox (PXL NeXT Building D)

Poster Presentation

Secondary education, Vocational education

Fostering Understanding and Collaboration in Secondary and Vocational Education

Keywords: Beliefs and Conceptions of Learning, Communities of Learners and/or Practice, Equality / Education for All, Instructional Design and Instructional Strategies, Learning and Developmental Difficulties/Disabilities, Peer Interaction / Learning, Professionalisation of Educators, Secondary School Education, Self-efficacy, Special Educational Needs, Vocational Education

Interest group: CLOUD 02 - Educators' professional development, CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: Sibel Inci, Turkiye

Attitudes and knowledge of secondary school teachers on learning disabilities

Keywords: Beliefs and Conceptions of Learning, Learning and Developmental Difficulties/Disabilities, Professionalisation of Educators, Special Educational Needs

Presenting Author:Lien Peters, HoGent, Belgium; **Co-Author:**Charlotte Pauly, HoGent, Belgium; **Co-Author:**Delphine Sasanguie, HoGent, Belgium

Approximately 10% of the student population has learning disabilities requiring specific educational needs (SEN). Teachers who received specific training show more positive attitudes towards inclusive education (see e.g., Avramidis & Kalyva, 2007; Pijl & Minnaert, 2012), which is crucial to the success of students with learning disabilities. However, the majority of secondary school teachers in Flanders is not specifically schooled in educational needs or inclusive education.

This research project hence aims to contribute to the professionalization of teachers on their knowledge and attitudes towards learning disabilities. First, we will measure secondary school teachers' knowledge and attitudes using an online survey. Subsequently, an evidence-informed, in-person professionalization workshop on SEN related to learning disabilities will be offered to a subset of respondents. Finally, the questionnaire will be re-administered after the workshop to gauge potential changes in knowledge and attitudes on learning disabilities. We will optimize the content of the workshop depending on feedback received from participants and aim to offer sessions of the program as professionalization opportunities for secondary school educators, to help improve the academic success rates of students with learning disabilities.

Physics Lesson for Fostering Deep Understanding: Focusing on spontaneous diagrams use and belief

Keywords: Beliefs and Conceptions of Learning, Equality / Education for All, Instructional Design and Instructional Strategies, Secondary School Education

Presenting Author:Kotaro TAKAHASHI, The University of Tokyo, Japan; **Co-Author:**Yuri UESAKA, The University of Tokyo, Japan

Many high school students tend not to deeply understand but merely memorize physics due to its complexity. To foster deep understanding, we focused on spontaneous diagram use and proposed an intervention where regular physics lessons in high school could support the use of diagrams based on previous studies. This intervention consisted of (1) allowing students to explain what the teacher explained using diagrams to their peers, (2) providing problems where students used diagrams, and (3) letting them attribute their problem-solving success to the use of diagrams. This study practically investigated the effects of such intervention. Eight 11th graders from Sonobe High School, where the first author served as a physics teacher during this period, participated in this intervention. In a test given after 26 physics lessons, many students solved the problems with diagrams, even though they were not asked to make diagrams. Results suggested that the current intervention may have promoted the spontaneous use of diagrams. In the poster presentation, we will intend to present actual lessons, such as those focusing on acceleration or Newton's third law, and engage in discussions.

Towards a collective learning culture with teenagers in challenging educational contexts.

Keywords: Beliefs and Conceptions of Learning, Peer Interaction / Learning, Self-efficacy, Vocational Education

Presenting Author:Els Schoubs, UCLL, Belgium; **Co-Author:**tinne van camp, UCLL, Belgium; **Co-Author:**Ilse Aerden, UCLL, Belgium

Teachers in challenging educational contexts, for example vocational education, remark that programs on effective teaching, self-regulation or cooperative learning are not adapted to their needs. Demotivation and negative peer groups are counterproductive towards a student's learning behavior. Creating an optimal learning culture with a teenager group is thus an important task for teachers. In a collaborative research project with teachers from three secondary schools, the aim is to gain insight into the possibility to work on 'collective student efficacy' (CSE) in challenging contexts. In a Professional Learning Community, we first explore the meaning of CSE in depth. Linked concepts and inspirational practices are reflected on, with extra attention on learning needs of students living in vulnerable situations. This reflections leads to customized action plans, implemented through Action Research. The Photovoice Method is used to involve students actively. Considered initiatives are taken and reflected on. Interviews are planned to get a picture of the beliefs of pupils and teachers about CSE. By using Qualitative Analysis, we aim to understand the means to create a culture in which students become both independent and inter-dependent learners. We aim to formulate conditions needed in the context and ingredients to work with as a teacher.

Community & Competition: Battle or Boost? A scoping review in the context of honors education

Keywords: Communities of Learners and/or Practice, Equality / Education for All, Special Educational Needs, Vocational Education

Presenting Author:Leontien Kragten, ROC Midden Nederland, Netherlands; **Co-Author:**Annegien Langeloo, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Marca Wolfensberger, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Cok Bakker, Utrecht University, Netherlands

To ensure each student fulfils their full potential may require additional challenges beyond the standard curriculum. In Dutch secondary vocational education, education for talented students is therefore organized in two prevalent ways, both enhancing students' learning capacity: (1) participation in honors programs where community with peers is central, and (2) participation in professional competitions. As building a community *with* others and wanting to *win over* others seem to contradict each other, the question arises of how these concepts interact and can be combined to create optimal learning environments for talented students. This leads to the research question: 'What is the role and meaning of community building and competition in honors education and how do they relate to each other?' To answer this question, we conducted a scoping review including 101 studies. Six overarching themes were identified: 1) Significance, (2) Developing, (3) Characteristics & Conditions, (4) Collaboration, (5) Membership & the Role of Actors, and (6) Enhanced Learning & the Role of Actors. Preliminary findings confirm the potential benefits of both community and competition for honors education. However, there is a literature gap concerning the combination of community and competition in (honors) education.

Session D 1

26 November 2024 16:45 - 18:15

Erlich (PXL NeXT Building D)

Case study

Higher education, Secondary education

Enhancing Student Performance through Technology

Keywords: 21st Century Learning, Authentic Learning, Deep-level and Profound Learning, Game-based Learning / Gamification, Innovations in Education, STEM, Technology Enhanced Learning

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Aimee Hoeve, HAN University of Applied Sciences, Netherlands

Impact of technology enhanced learning on student performance

Keywords: Authentic Learning, Deep-level and Profound Learning, Innovations in Education, Technology Enhanced Learning

Presenting Author:Karen Reekmans, Hogeschool PXL, Belgium

In this case study, I discuss innovative ways of teaching incorporating technology enhanced learning and retrieval practice in meaningful and varied ways. My aim was to explore if continuous assessment in an online learning platform offered realistic and achievable support to pre-service teachers to become well

qualified teachers of French in a primary school. Data was collected from a cohort of students who assigned for the course of French didactics in the second year of their Bachelor Teacher Training: Primary Education during the period 2017-2024. The innovative approach ensured deep learning and had a positive impact on the learning outcome.

EXPERIMENT2ESCAPE4EDUCATION: With a Rush of Adrenaline through the Educational Escape Room

Keywords: 21st Century Learning, Game-based Learning / Gamification, Innovations in Education, STEM

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

The project 'Experiment2escape4education' aims at developing and implementing an educational high-tech instrument escape room (EHIER) as an active STEM learning environment to foster students' knowledge and 21st century skills in Swiss secondary schools. The innovation of the project is the unique combination of real-world high-tech instruments from cutting-edge industries for hands-on experiments and vibrant multimedia journals with videos, motion comics and animations as a platform for mind-on brainteasers. To monitor the success of immersion and learning impact, an evaluation in the form of a mixed-method approach with interviews and questionnaires, briefings and debriefing will accompany the project. An escape room (ER) is a live-action team-based game in which a team must solve numerous challenges in a limited amount of time to fulfill a mission. In 'Experiment2escape4education', alternating hands-on and mind-on challenges animate students to constantly make decisions. By this, they experience great self-efficacy and a rush of adrenaline that has a great potential for inspiring a lifelong love for learning. In this case study, we detail and discuss the challenges of creating an immersive holistic learning experience. Based on the experiences from the 2-day workshop with a secondary school class we show how we align game mechanics, particularly hands-on and mind-on activities, and pedagogical approaches.

Session D 2

26 November 2024 16:45 - 18:15

B014 (PXL NeXT Building B)

Case study

Higher education, Primary education

Exploring Authentic Learning in Mathematics and New Teaching Principles

Keywords: Authentic Learning, Continuing Professional Development in Teachers, Higher Education, Mathematics Education, Primary School Education, Problem Solving, Professionalisation of Educators, School Development

Interest group: CLOUD 07 - Research impact on school development

Chairperson: Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

«Mathematics is all around us»: Teaching Mathematics Inside and Outside the Classroom

Keywords: Authentic Learning, Mathematics Education, Primary School Education, Problem Solving

Presenting Author: Christina Misailidou, National and Kapodistrian University of Athens, Greece; **Co-Author:** Vasiliki Kousouli, National and Kapodistrian University of Athens, Greece

We present a teaching proposal for the mathematical concept of «area» which we claim that could alleviate the misconceptions documented in the literature as well as being attractive for primary school children. The design of the teaching sequence was based on sociocultural theories of learning but also on connecting the classroom activities with activities in the school yard. The results were encouraging. The children participated with enthusiasm and solved the «area» problems successfully. Additionally, the linking between the inside and outside space of the school is considered to have helped the educational process by emphasizing a strong element of the mathematics' identity: its connection with the children's everyday lives. Key words: The «area» concept, calculating «area», outdoors education in mathematics

Growing new Learning Principles of Teaching and Learning at Aeres UAS (Agro-food)

Keywords: Continuing Professional Development in Teachers, Higher Education, Professionalisation of Educators, School Development

Presenting Author: Kiran Tomas Brande, Aeres Group, Netherlands; **Co-Author:** Liesbeth Meijer, Aeres University of Applied Sciences, Netherlands

This presentation shows the transformative journey of Aeres University of Applied Sciences (UAS) (Dronten, Netherlands) towards fostering a future-ready learning environment. Led by the Head of Educational Vision Development and the Project Leader of Lifelong Learning, the initiative aimed to revamp the educational landscape in response to the dynamic demands of the agro-food sector. Through collaborative efforts and stakeholder engagement, the project culminated in the development of a comprehensive educational vision and the establishment of a Teaching and Learning Centre (TLC). The case presentation will delve into the rationale behind the change, the key stakeholders involved, the implementation process, and the main conclusions drawn from the project. Although the project has concluded this academic year, plans are underway to further advance the new vision on education and enhance the TLC's capabilities.

Session D 3

26 November 2024 16:45 - 18:15

P107 (PXL NeXT Building D)

Case study

Primary education

Fostering 21st Century Learning: Art and Future Thinking in Education

Keywords: 21st Century Learning, Collaborative Learning, Cooperative Learning, Primary School Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: roel grol, HAN, Netherlands

Art as the center of the educational process in interdisciplinary projects: A case study

Keywords: 21st Century Learning, Collaborative Learning, Cooperative Learning, Primary School Education

Presenting Author: Juliana Abra Olivato, ISPA-Instituto Universitário (CIE - Center for Research in Education), Portugal

Given the importance that interdisciplinary has in an updated pedagogical practice, and the benefits showed by evidences in the literature that enhances creativity, critical thinking and collaboration, this case study explored the potential of interdisciplinary activities with elementary school students. It occurred in a catholic private school funded in 1872 in Lisbon area (Portugal), with students (n=13) from the 2nd grade. The project emphasized the artistic activities integrated with the sciences in an interdisciplinary way, and was implemented by a PhD student and educational researcher, the classroom teacher and the assistant teacher. Using a qualitative and exploratory methodology, the research sought to answer what were the difficulties and potentialities of implementing interdisciplinary activities in an educational context that does not prioritize this type of work, how did the process go and why. The project was proposed by the researcher and accepted by the school management. In 3 sessions, an exploratory didactic sequence was worked on the theme of water, something the class had already seen in a previous project. Exploratory activities were carried out on the sound of water, water measurements and environmental studies concepts, linking music, science and mathematics. The data analysed comes from participant observation, informal interviews with the teachers and the students' reflections and registries on the activities implemented. The students response was positive, with everyone interacting and contributing. The data analysis shows that the students view interdisciplinary activities naturally and openly, not limiting themselves to one discipline, building bridges beyond the disciplines barriers.

Session D 4

26 November 2024 16:45 - 18:15
B031 (PXL NeXT Building B)
Workshop
Higher education

How to foster authentic learning for both students and teachers in assessment practices

Keywords: Assessment and evaluation, Higher Education, Peer Interaction / Learning, Writing

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

In today's assessment practices, greater emphasis has come to lie on sharing assessment ownership. Whereas earlier a single teacher was entirely responsible for the quality and the learning opportunities within assessments, researchers and practitioners believe that engaging others in assessments is meaningful. As a result, more and more schools in higher education reach out to colleagues or external examiners (e.g., for assessments of internships) or include students in *assessment as learning* practices (e.g., peer assessment). However, networking with colleagues or students in assessment practices sometimes remains a mathematical activity, by assessing individually and calculating mean scores afterwards. Nevertheless, the learning opportunities for both assessors and students can increase by turning assessment into a collaborative task. Comparative judgement is a highly and reliable assessment method for complex assessment (e.g., assessment of internship), which draws upon the views of multiple assessors. As a result, the method provides opportunities for learning, both in the data the method produces (e.g., for assessors) and in the judgement tasks (e.g., for students). In this workshop on comparative judgement, you will dive into the opportunities and benefits of comparative judgement for collaboration in an assessment setting. For an optimal and smooth experience of comparative judgement, the online tool Comproved will be used.

How to foster authentic learning for both students and teachers in assessment practices

Presenting Author: Maarten Goossens, University of Antwerp, Belgium

In today's assessment practices, greater emphasis has come to lie on sharing assessment ownership. Whereas earlier a single teacher was entirely responsible for the quality and the learning opportunities within assessments, researchers and practitioners believe that engaging others in assessments is meaningful. As a result, more and more schools in higher education reach out to colleagues or external examiners (e.g., for assessments of internships) or include students in *assessment as learning* practices (e.g., peer assessment). However, networking with colleagues or students in assessment practices sometimes remains a mathematical activity, by assessing individually and calculating mean scores afterwards. Nevertheless, the learning opportunities for both assessors and students can increase by turning assessment into a collaborative task. Comparative judgement is a highly and reliable assessment method for complex assessment (e.g., assessment of internship), which draws upon the views of multiple assessors. As a result, the method provides opportunities for learning, both in the data the method produces (e.g., for assessors) and in the judgement tasks (e.g., for students). In this workshop on comparative judgement, you will dive into the opportunities and benefits of comparative judgement for collaboration in an assessment setting. For an optimal and smooth experience of comparative judgement, the online tool Comproved will be used.

Session D 5

26 November 2024 16:45 - 18:15
Pacioli (PXL NeXT Building D)
Workshop
Higher education

Sherlock in a Shoebox: searching for clues via inclusive participatory research

Keywords: Diversity, Equality / Education for All, Practice-based Research (methodology), Research-based Learning

Interest group: CLOUD 08 - Diversity & equality in different contexts

In this workshop, we provide a collection of tools for conducting collaborative and inclusive practice-based research. The toolbox includes research activities, background information, and training materials that make conducting practice-based research easily accessible, enjoyable, and engaging. The toolbox provides hands-on suggestions throughout the research process, from theme exploration to research goals and questions, data collection, collaborative analysis, impact pathways, and sharing of results. It also consists of sets of creative artifacts for creative research activities, investigation games, background information, and suggestions for further exploration. This toolbox is based on the theoretical underpinnings of inclusive research and arts-based and nonintrusive methodologies. The toolbox is a valuable resource for conducting collaborative action research with diverse groups such as students, children, overworked teachers, town committee members, and researchers. Our goal is to demonstrate that research is accessible to anyone, embracing multiple perspectives, and, above all, that research is not the burden it has become in some cases but, rather, an exciting endeavor that helps us improve our different contexts. During this workshop, we will use the shoebox tool for rapid prototyping of inclusive research and will incorporate participant feedback for further development.

Sherlock in a Shoebox: searching for clues via inclusive participatory research

Presenting Author: Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Presenting Author:** Jantien Gerdes, OSOF, Netherlands;

Presenting Author: Merel Satimin-Meijers, Windesheim University of Applied Sciences, Netherlands; **Presenting Author:** martijn willemse, Windesheim University of applied sciences, Netherlands; **Co-Author:** Tisja Korthals Altes, Windesheim University, Netherlands

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Session D 6

26 November 2024 16:45 - 18:15
B032 (PXL NeXT Building B)
Workshop

Art Based Methods: the Educational Field as a Colourful System

Keywords: Continuing Professional Development in Teachers, Creativity, Innovations in Education, Practice-based Research (methodology)

Interest group: CLOUD 11 - Practice-based Research Methodology

In this workshop participants take part in a colourful activity to get acquainted with a form of art based research methodology. We collaboratively reflect on this activity with findings and show cases from our three year research project Expedition Teacher Agenda. We discuss with the participants the value of the method used in the workshop, which was designed to investigate system awareness in a creative and dialogical way. System awareness seems important for educational professionals in order to keep up with educational change (Lockhorst et al., 2023) in a field that is a complex system defined by open boundaries,

and interpretative interactions recurring in all its parts (e.g., Biesta, 2022). In this workshop, we shortly present a definition of system awareness and hypothesize its value for educational professionals. The aims of the workshop are sharing our ideas on system awareness, and raising a methodological discussion on the importance of dialogical research, both in light of an increasingly networked reality.

Art Based Methods: the Educational Field as a Colourful System

Presenting Author:Bregje de Vries, VU University, Netherlands; **Presenting Author:**Wouter Schenke, Penta Nova, Netherlands; **Presenting Author:**Ditte Lockhorst, Oberon research institute, Netherlands; **Co-Author:**Amber Walraven, Radboud University, Department of TEacher education, Netherlands

In this workshop participants take part in a colourful activity to get acquainted with a form of art based research methodology. We collaboratively reflect on this activity with findings and show cases from our three year research project Expedition Teacher Agenda. We discuss with the participants the value of the method used in the workshop, which was designed to investigate system awareness in a creative and dialogical way. System awareness seems important for educational professionals in order to keep up with educational change (Lockhorst et al., 2023) in a field that is a complex system defined by open boundaries, and interpretative interactions recurring in all its parts (e.g., Biesta, 2022). In this workshop, we shortly present a definition of system awareness and hypothesize its value for educational professionals. The aims of the workshop are sharing our ideas on system awareness, and raising a methodological discussion on the importance of dialogical research, both in light of an increasingly networked reality.

Session D 7

26 November 2024 16:45 - 18:15

EA 139 (PXL NeXT Building A)

Workshop

Higher education

Facilitation of co-creation

Keywords: Collaborative Learning, Creativity, Higher Education, Innovations in Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Co-creation in Higher Education is a valuable pedagogic method to diminish the gap between learning and working for students, a necessary addition to the professionalization of teachers and it provides suggestions for solutions for problems that the professional field is dealing with. The chances for effective co-creation leading to these three outcomes are enlarged by good facilitation of the process. In this workshop, participants will learn about the characteristics of good facilitators, activities the facilitator can initiate in order to guide the co-creation process and to guard equitable contributions of each of the participants. You will experience different working methods to facilitate co-creation. Furthermore, you will reflect on your competencies as a facilitator using a reflection tool we developed in our co-creation research group. We will provide information about the different phases of co-creation, and how diverging, reverging and converging in each phase will support the collaborative search for solutions for issues arising from the professional field. Co-creation as we propose, can be implemented in any vocational or higher educational programme.

Facilitation of co-creation

Presenting Author:Miranda de Hei, The Hague University of Applied Sciences, Netherlands; **Presenting Author:**Dulci Altorf, The Hague University of Applied Sciences, Netherlands; **Presenting Author:**d kujlenburg, The Hague University, Netherlands; **Presenting Author:**Margriet Lerink-Mulderink, THUAS Haagse Hogeschool The Hague Netherlands, Netherlands; **Presenting Author:**Carlo Konings, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Elke Müller, The Hague University of Applied Sciences, Netherlands

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Session D 8

26 November 2024 16:45 - 18:15

EA 138 (PXL NeXT Building A)

Workshop

Higher education

Promoting Inclusive Learning: Embracing Cultural Responsiveness in Higher Education

Keywords: Culture and Education, Diversity, Higher Education, Multiculturalism in Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

In this interactive workshop, participants will delve into the practical application of culturally responsive pedagogy (CRP) within the context of higher education. Drawing on insights from an international practice-based research project between Belgium and Ecuador, participants will explore hands-on strategies for creating inclusive learning environments that honor students' diverse cultural backgrounds.

Through demonstrations, case study analysis, guided reflection, creative exercises, and group discussions, this workshop will initiate the enhancement of your intercultural competencies.

Promoting Inclusive Learning: Embracing Cultural Responsiveness in Higher Education

Presenting Author:Anniek Orye, PXL University of Applied Sciences and Arts, Belgium; **Co-Author:**Andrea Basantes-Andrade, Universidad Técnica del Norte, Ecuador; **Co-Author:**Miguel Naranjo Toro, Universidad Técnica del Norte, Ecuador; **Co-Author:**Luz Marina Pereira Gonzalez, Universidad Técnica del Norte, Ecuador; **Co-Author:**Karina Mayra Pabón Ponce, Universidad Técnica del Norte, Ecuador; **Co-Author:**Andres Guillermo Benavides Piedra, Universidad Técnica del Norte, Ecuador

In this interactive workshop, participants will delve into the practical application of culturally responsive pedagogy (CRP) within the context of higher education. Drawing on insights from an international practice-based research project between Belgium and Ecuador, participants will explore hands-on strategies for creating inclusive learning environments that honor students' diverse cultural backgrounds.

Through demonstrations, case study analysis, guided reflection, creative exercises, and group discussions, this workshop will initiate the enhancement of your intercultural competencies.

Session D 9

26 November 2024 16:45 - 18:15

B013 (PXL NeXT Building B)

Workshop

Higher education

Stimulate your students' agency with the Student Agency Toolkit for higher education

Keywords: Curricula, Higher Education, Innovations in Education, Lifelong Learning

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Agency refers to the ability to intentionally and reflectively steer one's learning process and influence one's learning environment. To support study programmes in higher education in stimulating their students' agency, we developed a Student Agency Toolkit. The aim of this toolkit is to study the perceptions of students and teachers on the agency resources in a study programme, and to facilitate the dialogue about how to stimulate student agency in this programme. The toolkit has already been used in ten different study programmes in three Dutch Universities. The aim of this workshop is to present the development of our toolkit, and to perform an interactive working method of the toolkit. To discuss the application of this toolkit in higher education, we will interview one of the teachers that applied our toolkit about the practical implications and insights in what they have learned about the agency resources in their study programme. In the workshop we will combine the scientific knowledge of our study with interactive working methods from the toolkit. Hopefully we will inspire others and learn how to develop this toolkit further.

Stimulate your students' agency with the Student Agency Toolkit for higher education

Presenting Author:Janine Haenen, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Bob Gotte, Inholland University of Applied science, Netherlands; **Co-Author:**Sabine van Dijken, Inholland, Netherlands

Agency refers to the ability to intentionally and reflectively steer one's learning process and influence one's learning environment. To support study programmes in higher education in stimulating their students' agency, we developed a Student Agency Toolkit. The aim of this toolkit is to study the perceptions of students and teachers on the agency resources in a study programme, and to facilitate the dialogue about how to stimulate student agency in this programme. The toolkit has already been used in ten different study programmes in three Dutch Universities. The aim of this workshop is to present the development of our toolkit, and to perform an interactive working method of the toolkit. To discuss the application of this toolkit in higher education, we will interview one of the teachers that applied our toolkit about the practical implications and insights in what they have learned about the agency resources in their study programme. In the workshop we will combine the scientific knowledge of our study with interactive working methods from the toolkit. Hopefully we will inspire others and learn how to develop this toolkit further.

Session D 10

26 November 2024 16:45 - 18:15

B011 (PXL NeXT Building B)

Workshop

Higher education

Workshop on critical digital literacy for teacher educators

Keywords: Higher Education, Initial Teacher Education (Pre-service), Professionalisation of Educators, Technology Enhanced Learning

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

This workshop on critical digital literacy aims at stimulating (teacher) educators' deeper understanding of how digital technologies affect educational processes and practices, gaining better insight into ethical aspects involved in using digital educational technologies, and increasing their competencies to foster their students' critical understanding of digital platforms in education. Such critical literacy is highly relevant given the increasing amount of digital (platform) technologies in (primary school) classrooms (Cone, 2023) and teachers' lack of knowledge, skills and competences to critically and responsibly attend to how these technologies reshape their educational practices and influence how they act and make decisions (Kerssens & De Haan, 2022). We will discuss dilemmas to increase educators' own critical digital literacy and provide guidance on how to foster critical digital literacy in their students.

Workshop on critical digital literacy for teacher educators

Presenting Author:Rianne van den Bergh, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Niels Kerssens, Utrecht University, Netherlands; **Co-Author:**Marco Geenen, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Monique Leygraaf, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**André Nusselder, Marnix Academie, Netherlands

This workshop on critical digital literacy aims at stimulating (teacher) educators' deeper understanding of how digital technologies affect educational processes and practices, gaining better insight into ethical aspects involved in using digital educational technologies, and increasing their competencies to foster their students' critical understanding of digital platforms in education. Such critical literacy is highly relevant given the increasing amount of digital (platform) technologies in (primary school) classrooms (Cone, 2023) and teachers' lack of knowledge, skills and competences to critically and responsibly attend to how these technologies reshape their educational practices and influence how they act and make decisions (Kerssens & De Haan, 2022). We will discuss dilemmas to increase educators' own critical digital literacy and provide guidance on how to foster critical digital literacy in their students.

Session D 11

26 November 2024 16:45 - 18:15

Blackbox (PXL NeXT Building D)

Workshop

Primary education

The complex job of the facilitator. Developing tools for facilitators of learning networks

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Continuing Professional Development in Teachers, Leadership Development

Interest group: CLOUD 12 - Leadership in Education

Professional learning networks (PLN) are groups of professionals who engage in collaborative learning with others outside of their everyday community of practice; with the aim of improving outcomes for children (Poortman, et al, 2022). PLNs are successful, but even more successful when guided by a facilitator (De Vries et al, 2017; Schipper et al, 2017) or a community level leader (VanGrieken et al. 2017). In this workshop we will build on our research concerning facilitator moves. Our research shows that facilitating PLNs is a complex job. Since little is known about the facilitator job (Perry & Booth, 2021), we have limited this to facilitator moves contributing to developing two important interacting components of PLNs: the development of mutual trust and a psychological safe learning environment and the development of collaborative enquiry. The goal of our workshop is to collect ideas for developing practical tools for facilitating PLNs. After presenting our results and answering questions, participants will work in smaller groups on ideas, using two learning design study methods (Maurits & Slaats, 2019). We will end our workshop by reflecting on the most important suggestions for developing practical tools and lessons learned.

The complex job of the facilitator. Developing tools for facilitators of learning networks

Presenting Author:Loes van Wessum, Windesheim Zwolle, Netherlands; **Co-Author:**Martine Broekhuizen, Utrecht University, Netherlands

Professional learning networks (PLN) are groups of professionals who engage in collaborative learning with others outside of their everyday community of practice; with the aim of improving outcomes for children (Poortman, et al, 2022). PLNs are successful, but even more successful when guided by a facilitator (De Vries et al, 2017; Schipper et al, 2017) or a community level leader (VanGrieken et al. 2017). In this workshop we will build on our research concerning facilitator moves. Our research shows that facilitating PLNs is a complex job. Since little is known about the facilitator job (Perry & Booth, 2021), we have limited this to facilitator moves contributing to developing two important interacting components of PLNs: the development of mutual trust and a psychological safe learning environment and the development of collaborative enquiry. The goal of our workshop is to collect ideas for developing practical tools for facilitating PLNs. After presenting our results and answering questions, participants will work in smaller groups on ideas, using two learning design study methods (Maurits

& Slaats, 2019). We will end our workshop by reflecting on the most important suggestions for developing practical tools and lessons learned.

Session D 12

26 November 2024 16:45 - 18:15

Corbu (PXL NeXT Building D)

Workshop

Vocational education

The Competency Game. Competences of teachers en field supervisors in hybrid learning environments.

Keywords: Game-based Learning / Gamification, Professionalisation of Educators, Team Learning, Vocational Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

For those seeking insight into the competencies required of teachers and field supervisors in hybrid learning environments and tools to guide their professional development, this workshop will be fine! We commence with a presentation of our Group Concept Mapping research, a comprehensive study that identified seven competency clusters crucial for teachers and field supervisors in hybrid learning environments. Each cluster's significance and mastery are delineated, offering valuable insights for the professional growth of educators and supervisors. To facilitate this, we have devised a game that participants can engage in to explore these insights. In the last part of the workshop, we convert these insights to a support plan for teams of educators and/or field supervisors in hybrid learning environments.

The Competency Game. Competences of teachers en field supervisors in hybrid learning environments.

Presenting Author:Monique Hoogesteger, Scalda, Netherlands; **Co-Author:**Petra Poelmans, Scalda, Netherlands

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Session D 13

26 November 2024 16:45 - 18:15

B012 (PXL NeXT Building B)

Workshop

Higher education

The European Syllabus for teacher education - Bring your perspectives on 5 cross-cutting themes

Keywords: In-service Teacher Training, Initial Teacher Education (Pre-service), Multiculturalism in Education, Sustainability

Interest group: CLOUD 01 - Teacher education

In this interactive workshop, we invite teachers and teacher educators to bring their perspectives on the European syllabus for teacher education. We identified five cross-cutting themes in teacher education: education for sustainability, democratic education, gender sensitive teaching, linguistic and cultural diversity, and digitalization of learning environments. These themes can be overlooked during teacher education, yet they are highly present in everyday life at school. In the workshop, we use the world café method to share the results of the project and collect participants' perspectives on the syllabus. We encourage participants to discuss the syllabus and give feedback based on the system and practices in their own countries. The participants get a chance to analyze the open educational resources on the themes, which can be applied immediately in their teaching practice.

The European Syllabus for teacher education - Bring your perspectives on 5 cross-cutting themes

Presenting Author:Megumi Iwata, University of Oulu, Finland; **Presenting Author:**Kati Mäkitalo, University of Oulu, Finland; **Co-Author:**Juan-Miguel Diaz Castro, University of Oulu, Finland; **Co-Author:**Sari Harmoinen, University of Oulu, Finland

In this interactive workshop, we invite teachers and teacher educators to bring their perspectives on the European syllabus for teacher education. We identified five cross-cutting themes in teacher education: education for sustainability, democratic education, gender sensitive teaching, linguistic and cultural diversity, and digitalization of learning environments. These themes can be overlooked during teacher education, yet they are highly present in everyday life at school. In the workshop, we use the world café method to share the results of the project and collect participants' perspectives on the syllabus. We encourage participants to discuss the syllabus and give feedback based on the system and practices in their own countries. The participants get a chance to analyze the open educational resources on the themes, which can be applied immediately in their teaching practice.

Session D 14

26 November 2024 16:45 - 18:15

Montessori (PXL NeXT Building D)

EAPRIL Spotlight Session

Educational Leadership Network Europe (ELNE) and EAPRIL

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Educational Policy, Innovations in Education

Interest group:

This spotlight session aims to present the Educational Leadership Network Europe (ELNE) and its ambition to break the silos of the education and training sector while becoming a hub for dialogue between educational leaders, practitioners, academics, parents, students, policymakers and more. The presentation will include a roadmap of the work of the Network in its first year of life (2023-2024) under the overarching theme *Transforming Schools into Learning Communities*, and a look into the future for the upcoming ELNE Year under the theme *Dimensions of Collaborative leadership – exploring together*. Building on the ELNE policy recommendations of 2024, ELNE is looking to further promote and support the enactment of research and the strengthening of synergies between research, practice, and policymaking; and to encourage practitioners and researchers to showcase their work and engage with others to establish a culture of Collaborative Leadership in Education. This speech will highlight the opportunities for collaboration between ELNE and EAPRIL.

Educational Leadership Network Europe (ELNE) and EAPRIL

Presenting Author:Silvia Pesini Escartín, European Federation of Education Employers, Belgium

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Keynote 1

27 November 2024 09:00 - 10:00
Restaurant (PXL NeXT Building D)
Keynote

A Blended Collaborative Constructive Participation Model

Keywords: 21st Century Learning, Blended Learning, Collaborative Learning, Innovations in Education

Interest group:

I would present a model is called Blended Collaborative Constructive Participation (BCCP) and it is based on the Triological Learning Approach (Paavola ET AL., 2012; Sansone et al., 2016). The model combines various educational strategies, ranging from traditional lecturing to socio-constructivism educational approaches. The core of this model can be summarized around the following five elements (Ligorio & Sansone, 2014):

1) Structuring the educational content. 2) Organizing the groups 3) Organizing the contamination between the learning context and other contexts, interesting and interested to the learning activities. 4) Defining activities. 5) Organizing the digital environment to support communication and content sharing.

A Blended Collaborative Constructive Participation Model

Presenting Author: Maria Beatrice Ligorio, University of Bari, Italy

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1) Structuring the educational content. 2) Organizing the groups 3) Organizing the contamination between the learning context and other contexts, interesting and interested to the learning activities. 4) Defining activities. 5) Organizing the digital environment to support communication and content sharing.

Award Session 1

27 November 2024 10:30 - 12:00
Pacioli (PXL NeXT Building D)
Best Practice-Based Research Award
Higher education

Best Practice-Based Research Award Session

Keywords: At-risk Students, Continuing Professional Development in Teachers, Educational Effectiveness and Quality of Education, In-service Teacher Training, Initial Teacher Education (Pre-service), Practice-based Research (methodology), Professional Development, Teacher Thinking, Technology Enhanced Learning, Well-being & Engagement

Interest group: CLOUD 01 - Teacher education

Te(A)chThink Project

Keywords: Initial Teacher Education (Pre-service), Practice-based Research (methodology), Teacher Thinking, Technology Enhanced Learning

Presenting Author: Ottavia Trevisan, University of Padova, Italy; **Co-Author:** Filippo Marcato, University of Padova, Italy, Italy

The Te(A)chThink Project addresses the imperative for educators to navigate educational digitization effectively, preparing future teachers to foster critical thinking and meaningful learning experiences through technology integration. Rooted in Ritchhart's concept of a Culture of Thinking, the project sought to cultivate an environment where educators and students engage in deep learning, making thinking visible and prioritizing student-centred approaches. Implemented in a European initial teacher education (ITE) course, the project aimed to investigate how a Culture of Thinking could manifest in a large student cohort setting. The blended course structure included weekly face-to-face and remote sessions, integrating theoretical frameworks and practical case studies. Key components included team-based online debates and peer reviews, fostering collaboration and critical reflection. Analysis of student participation revealed sustained engagement, increasing debate and review scores, and positive feedback on course structure and materials. Lessons learned underscore the need for scaffolding in transitioning to a Culture of Thinking, ongoing formative assessment strategies, and the feasibility of peer-to-peer learning in large cohorts. The project's sustainability lies in its accessible resources, including a teacher scenario sandbox, a database of educational technology resources, and a curated website, ensuring continued impact and dissemination of best practices in teacher education.

Building a support network within school-university partnerships with the Teacher Resilience Toolkit

Keywords: At-risk Students, In-service Teacher Training, Initial Teacher Education (Pre-service), Well-being & Engagement

Presenting Author: Gerbert Sipman, Marnix Innovation Centre Utrecht, Netherlands; **Co-Author:** Miranda Timmermans, Marnix University of applied sciences, Netherlands

Becoming and being a teacher demands resilience and the covid 19 crisis stressed the importance to support (future) teachers' resilience. Through research in which pre-service teachers participated low-threshold tools for supporting resilience of (future) teachers in school-university partnerships were designed and tested. Guided by the professional, emotional, motivational and social dimension of teacher resilience, the challenges/needs and leads related to supporting the resilience of (future) teachers were investigated through interviews and research workshops for both pre-service as well as starting in-service teachers and school as well as institute based teacher educators. The results formed a base for designing prototypes, using a format incorporating instructions for both the user (pre- or in-service teachers) the teacher educators (school or institute based) for supporting the user. In an iterative process the tools were refined, leading to a set of 21 tools with supporting materials on an accompanying website. Besides this Teacher Resilience Toolkit the project refined knowledge on the challenges pre-service as well as starting in-service teachers meet that require resilience and the lack of tools supporting how to deal with these challenges. Moreover, ways to translate conceptual approaches into low-threshold tools were found.

Navigating educational change: a crystallized view on adaptive expertise

Keywords: Continuing Professional Development in Teachers, Educational Effectiveness and Quality of Education, Practice-based Research (methodology), Professional Development

Presenting Author: Ditte Lockhorst, Oberon research institute, Netherlands; **Co-Author:** Patricia Brouwer, Hogeschool Utrecht Lectoraat Werken in Onderwijs, Netherlands; **Co-Author:** Monika Louws, Utrecht University, Netherlands; **Co-Author:** Leonie Middelbeek, Oberon research institute, Netherlands; **Co-Author:** Wouter Schenke, Penta Nova, Netherlands; **Co-Author:** Annemie Struyf, University Utrecht, Netherlands; **Co-Author:** Bregje de Vries, VU University, Netherlands; **Co-Author:** Amber Walraven, Radboud University, Netherlands

Working in the field of education means constantly seeking balance between keeping things going and managing change. Expedition Lerarenagenda set out to explore the adaptive expertise that seems to be necessary to be able to do this. A varied team of researchers representing different research organizations and educational expertise travelled to the unknown futures of educational change with the paradigm of crystallization in their luggage: a view on research which strives to produce rich and crystallized insights to cover complex matters. They translated crystallization into seven research methods ranging from literature review and field studies to art-based methodology. All methods were applied in co-creation with stakeholders. The outcomes of the Expedition can be presented as a crystal revealing three processes central to adaptive expertise: collective sense-making, decision-taking and enactment. Professional identity, system and future awareness were found to positively influence the adaptive expertise. Besides gaining insight into the theory and practices of adaptive expertise, the Expedition brought to light the value of a crystallized research approach and its inclusion of art-based methods. The project contributes to the empowerment of educational professionals as change agents emphasizing professional dialogue as key to practice-based research.

Session E 1

27 November 2024 13:00 - 14:30

B031 (PXL NeXT Building B)

Roundtable

Secondary education

Teacher Induction and Language Learning with Digital Tools

Keywords: Language Education, Mentoring, Motivation, Professional Development, Secondary School Education, Technology Enhanced Learning, Well-being & Engagement

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 11 - Practice-based Research Methodology

Chairperson: Kateryna Grabovets, Hanze University of Applied Sciences, Netherlands

Teachers boost: optimizing teacher induction programs

Keywords: Mentoring, Professional Development, Secondary School Education, Well-being & Engagement

Presenting Author: Silke Hellebaut, University of Ghent, Belgium

The transition from teacher education to teaching in schools presents significant challenges for beginning teachers (BTs). Teacher induction programs (TIP) are recognized as pivotal in enhancing BTs' job satisfaction and performance. These programs vary in structure and involve support from various members of the school team, forming collegial support networks. Previous studies have shown that support from multiple actors positively impacts BTs' well-being and job satisfaction, yet there is limited understanding of the most effective ways to utilize these networks during TIP. Through the lens of Self-Determination Theory (SDT), we aimed to understand how actors in the collegial support network contribute to supporting or frustrating BTs' basic psychological needs. Based on two qualitative studies on BTs' need-based experiences during the received TIP and on how the collegial support network think about TIP, we now want to design a starter package for BTs (0-3 years of experience) in which they can shape their TIP themselves. This might include workshops, contact moments with a mentor, classroom observations by subject colleagues, and reflection sessions with the school leader. We would like to develop this package through a co-creation process involving BTs and different actors and evaluate the starter package in an intervention study.

Improving conversational skills in modern foreign language with digital technology

Keywords: Language Education, Motivation, Secondary School Education, Technology Enhanced Learning

Presenting Author: Annemieke de Jong, HAN University of Applied Sciences (UAS), Netherlands

In this planned design research, a learning arrangement for conversational skills in Modern Foreign Languages will be designed and tested. This learning arrangement will make use of Technology Mediated Task-based Learning and a spoken chatbot. During the research the following main research question will be answered: How can the use of a task-based spoken chatbot contribute to improving foreign language conversational skills in secondary schools? This participatory iterative design research consists of five sub-studies, and will be carried out in two iterations: after problem analysis, it will be designed through co-creation, then the learning arrangement will be implemented and simultaneously presented to the expert group (co-reflection). The analyses from each iteration will feed into the next round of design. Testing of the design is carried out at several secondary schools. Before designing the learning arrangement through co-creation, a realistic literature synthesis is carried out, which includes theoretical and empirical studies to explore theory and practice (Van Turnhout & Lusse, 2023), in order to identify the existing relationships between the variables. Furthermore surveys, document analyses, structured observations and narrative interviews will be used as methods to collect data.

Session E 2

27 November 2024 13:00 - 14:30

B012 (PXL NeXT Building B)

Roundtable

Primary education

Primary Teacher Education

Keywords: Beliefs and Conceptions of Teaching, Initial Teacher Education (Pre-service), Knowledge Building and Development, Morality & Religious Education, Music & Arts Education, Primary School Education, Professional identity

Interest group: CLOUD 01 - Teacher education

Chairperson: Miranda de Hei, The Hague University of Applied Sciences, Netherlands

The impact of the teacher's personal worldview on lesson preparation in primary education.

Keywords: Beliefs and Conceptions of Teaching, Morality & Religious Education, Primary School Education, Professional identity

Presenting Author: Henk Aversch, Viaa Christian University of Applied Sciences, Netherlands

During daily lesson preparation, teachers make choices regarding content, classroom management, etc. These choices reflect (consciously or unconsciously) the teacher's personal worldview. Awareness of the influence of this personal worldview on the choices leads to a stronger underpinning of the choices. The research aims to develop a lesson preparation practice that heightens awareness of the influence of personal worldview in lesson preparation in such a way that it leads to stronger accountability and underpinning of the lessons. Research questions concern the choices teachers make and how personal worldview influences them, how to design a lesson preparation system that increases teachers' awareness, and how use of that lesson preparation system leads to stronger accountability and underpinning of lessons. Through a designed framework, teachers are questioned about the choices they make in lesson preparation and how personal worldview plays a role in it. Subsequently, in an educational design study, a lesson preparation system is developed aiming to increase teachers' awareness of their choices and the influence of their personal worldview. In daily practice, the study examines how this lesson preparation system leads to stronger accountability and underpinning of lessons.

Wisdom of Practice revisited: role of Lee Shulman's essays in today's teacher training programs

Keywords: Initial Teacher Education (Pre-service), Knowledge Building and Development, Music & Arts Education, Primary School Education

Presenting Author: Marcelle Moor, University of Teacher Education (HEP-BEJUNE), Switzerland, Switzerland

The academic concept of *pedagogical content knowledge* (PCK) is sometimes referred to as the 'American version' of didactics among French-speaking researchers. This concept has been appropriated in many research papers from the 1990s onwards, spawning its own subcategory of scientific literature. A current research project initially aimed to use the academic concept of PCK in parallel with other academic concepts belonging to the French-speaking didactics framework. However, closer study of PCK revealed the futility of considering this concept as a standalone, and the final data treatment plan implemented a coding system using the aforementioned didactics framework, Shulman's complete knowledge base of teaching (including PCK) and his model of pedagogical reasoning and action. Results clearly show the complementary nature of these frameworks, but the question remains: to what extent are Shulman's writings still relevant to and integrated into current primary teacher training programs? The role and pertinence of Shulman's writings in today's primary teacher training programs is unclear. This roundtable session seeks to facilitate the sharing of current ideas, practices and references in the teacher-training domain in order to clarify the above questions, or at the least, generate leads for follow-up in order to increase the robustness of future research design.

Session E 3

27 November 2024 13:00 - 14:30

B032 (PXL NeXT Building B)

Roundtable

Higher education

Digital Literacy and Game-Based Learning in Language Education

Keywords: 21st Century Learning, At-risk Students, Game-based Learning / Gamification, Geography Education, Higher Education, Reading

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Marieke Veltman, Windesheim University of Applied Sciences, Netherlands

Using StoryMaps to integrate digital literacy in language-oriented natural science education

Keywords: 21st Century Learning, Geography Education, Higher Education, Reading

Presenting Author: Daphne Rijborz, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:** Rianne Van den Berghe, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Due to declining reading skills of students in primary schools in the Netherlands, there is an increasing demand for a different approach to support reading, using rich texts in meaningful contexts. The natural sciences (e.g. geography, history, biology) can play an important role in providing such contexts. Moreover, using digital stories in the natural sciences provides primary students with the opportunity to not only learn deep reading and gain more knowledge of the world around them, but to also increase their digital literacy. The digital tool StoryMaps is highly suitable for functioning on the interface of digital literacy, reading, and knowledge of the natural sciences. However, teachers have little experience with working with (digital) stories to support this type of integrated education and even less experience in using StoryMaps. The aim of this research project is to find out what knowledge and skills (pre-service) teachers need to develop and implement integrated education with the use of StoryMaps. Pre-service teachers at IPABO University of Applied Sciences will be taught how to use StoryMaps and implement them in their education. We will collect field notes and results from them and their students.

Using game-based learning to improve second language reading skills in higher education students

Keywords: At-risk Students, Game-based Learning / Gamification, Higher Education, Reading

Presenting Author: Deborah Yapp, Leiden University of Applied Sciences, Netherlands

English is increasingly used worldwide for scholarly research purposes, placing enormous demands on second language (L2) academic reading skills for higher education students. Reading strategy interventions can help, but, students entering higher education from vocational education are often insufficiently exposed to L2 academic reading for interventions to improve their skills adequately. However, a digital game-based learning (DGBL) reading intervention with explicit reading strategy training can help boost poor reading skills, because, besides *flow*, DGBL motivates new skill learning. DGBL may especially benefit poor readers as video-gamers seem to possess exceptional L2 reading skills compared to non-gamers. Moreover, DGBL has been successfully applied to mathematics and science within primary education. However, there has been little investigation of its application in L2 reading within higher educational contexts. The research question guiding this project is: To what extent can an explicitly designed digital game-based learning L2 reading intervention improve the L2 academic reading skills of higher education students? To answer this question a DGBL reading intervention would be developed, implemented over three identical consecutive treatment periods and tested using a quasi-experimental pretest – posttest design, for its effect in improving L2 academic reading skills in higher education students, especially those with poor reading skills.

Session E 4

27 November 2024 13:00 - 14:30

B013 (PXL NeXT Building B)

Roundtable

Secondary education, Workplace learning

Evaluating Collaborative Tools and Teaching Perspectives in Education

Keywords: Internships, Problem Solving, Professional Development, Professionalisation of Educators, Teacher Thinking, Teaching Approaches, Team Learning, Workplace Learning

Interest group: CLOUD 05 - HRD & Workplace learning

Chairperson: Anu Lehtikko, University of Lapland, Finland

Assessing the Efficacy of the Network Collaboration Monitor App

Keywords: Internships, Problem Solving, Team Learning, Workplace Learning

Presenting Author: Robert Ovbiagbonhia, Hanze University Groningen, Netherlands; **Co-Author:** Jelly Zuidersma, Hanze University Groningen, University of Applied Sciences, Netherlands; **Co-Author:** Elvira Coffetti, Hanze University Groningen, Netherlands; **Co-Author:** Renée Oosterwijk, Hanze University Groningen, University of Applied Sciences, Netherlands

Title of the Submission:

A Quantitative Exploration of Collaboration Dynamics: Assessing the Efficacy of the Network Collaboration Monitor App in Network Formation, Development, and Sustainability
General Abstract (100 - 200 words):

This quantitative inquiry scrutinizes the Network Collaboration Monitor app's capacity to foster collaboration within network organizations. Employing surveys disseminated via the app as the principal data collection instrument, this study delineates the intricate dynamics of collaboration. Grounded in reciprocity theory and goal-framing theory, the research elucidates the app's role in engendering reciprocity behavior and bolstering sustainable network evolution. The investigation seeks to furnish empirical substantiation regarding the app's efficacy in facilitating network formation, maturation, and enduring sustainability, thereby empowering network organizations to optimize their collaborative endeavors effectively. The prototype of the app will be presented at the conference.

Religious education teachers and their perception of non-denominationalism in RE lessons

Keywords: Professional Development, Professionalisation of Educators, Teacher Thinking, Teaching Approaches

Presenting Author: Daniela Zahneisen, RPTU Kaiserslautern Landau, Germany

The central research question is: What attitudes do religious education teachers have towards non-denominationalism as a dimension of religious-ideological diversity in contexts of religious education and what religious didactic ideas do they associate with this dimension? Further research questions can be summarized as follows: · How do religious education teachers perceive non-denominationalism as a dimension of religious and ideological diversity in society? · What attitudes and approaches do religious education teachers take to the task of dealing with non-denominationalism as a dimension of religious-ideological diversity in religious education? · What religious didactic ideas guide religious education teachers in dealing with non-denominationalism in religious education (e.g. in relation to planning the lesson, the teaching process, dealing with pupils, topics, methods)? · What challenges do religious education teachers face related to religious and ideological diversity in religious education, particularly due to the increase in non-denominational pupils? The research questions are to be clarified through a qualitative-empirical approach, i.e. individual interviews (vignettes & in-depth interviews) with religious education teachers and their evaluation by application of grounded theory and objective hermeneutics or sequential detailed analysis.

Session E 5

27 November 2024 13:00 - 14:30

EA 139 (PXL NeXT Building A)

Roundtable

Higher education

Knowledge Creation and Engagement Strategies in Higher Education

Keywords: Continuing Professional Development in Teachers, Doctoral Education (PhD education), Higher Education, Knowledge Building and Development, Organisational Learning, Professional identity, Social Interaction

Interest group: CLOUD 02 - Educators' professional development

Chairperson: Sabrina Schmöckel, University of Paderborn, Germany

Epistemic agency of HPE-teachers: how do they create knowledge in situations of not-knowing?

Keywords: Continuing Professional Development in Teachers, Higher Education, Knowledge Building and Development, Professional identity

Presenting Author: Jacob Nouta, Hogeschool Utrecht, Netherlands; **Presenting Author:** Belinda Ommering, Utrecht University of Applied Sciences, Netherlands

Students in higher professional education (HPE) are being prepared for working in a professional practice and society that is becoming increasingly complex and dynamic. In order to make a good start they need epistemic agency, an active and productive stance towards knowledge (Heikkilä et al., 2023). HPE teachers play an important role in supporting students to develop epistemic agency. But what about their own epistemic agency? HPE teachers also face new and challenging situations in which they might not know how to act. In these situations of 'not knowing', epistemic agency could be used to develop actionable knowledge. However, the HPE teaching population is heterogeneous and differences could be of significant influence on the decisions teachers make in daily practice. Therefore, the diverse HPE context offers a valuable research avenue to make distinctions between different types of teachers and their use and development of epistemic agency. Our research question therefore is "How do HPE teachers use epistemic agency in situations of not knowing?". Interviews will be conducted with HPE teachers with different professional backgrounds. Within this roundtable session we would like to discuss our preliminary results and their implications for HPE teacher support in deploying and developing their epistemic agency.

Exploring Public Engagement Methods in Higher Education

Keywords: Doctoral Education (PhD education), Knowledge Building and Development, Organisational Learning, Social Interaction

Presenting Author: Kiran Tomas Brande, Aeres Group, Netherlands; **Co-Author:** Emmy Vrieling, Open University of the Netherlands, 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

This Round Table submission addresses a scoping review which seeks to analyze and synthesize the methodologies of public engagement in the context of higher education. It specifically focuses on the designs and approaches used by professionals and practice-based researchers attempting to engage the public (internally and externally). The central research question investigates which methods are deployed to enhance public engagement. Employing the PRISMA framework alongside the ASReview tool, this study systematically identifies, analyzes, and evaluates these strategies to assess their effectiveness and applicability. The round table inquiry aims to discuss the findings in line with future research directions.

Session E 6

27 November 2024 13:00 - 14:30

Corbu (PXL NeXT Building D)

Roundtable

Workplace learning

HRD & Workplace Learning

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Leadership Development, Lifelong Learning, Professional Development, Workplace Learning

Interest group: CLOUD 05 - HRD & Workplace learning

Chairperson: Sterre Hoenderop, HZ University of Applied Sciences, Netherlands

Keep on trucking: How a Learning Community can develop leaders in road-transport

Keywords: Communities of Learners and/or Practice, Leadership Development, Professional Development, Workplace Learning

Presenting Author: Wouter van Zwol, Radboud University, Netherlands; **Co-Author:** Ellen Rusman, Faculty of Educational Sciences - Open University of the Netherlands, Netherlands; **Co-Author:** Jeroen de Jong, Radboud University, Netherlands; **Co-Author:** Beatrice van der Heijden, Radboud University, Netherlands

Currently, there is limited understanding of how leaders can be developed to foster the sustainable employability of blue-collar workers, who constitute the backbone of the economy and face heightened risks of work-related injuries and displacement due to automation and new technologies. This case study looks into the development of leadership practices aimed at enhancing sustainable employability within an emerging learning community and its impact on learning, working, and innovation practices related to sustainable employability. We utilize a variety of qualitative data: (1) Observations of participant behaviors (2) recorded interactions of six meetings, (3) semi-structured interviews with participants ($n = 15$) and their followers ($n = 45$) at the beginning and end of the study, and (4) mind maps. The observations and recorded interactions are used to assess the knowledge co-construction, interaction and social processes within the learning community. To monitor the progression of knowledge, skills, and abilities on leadership and sustainable employability over time, we use the semi-structured interviews and mind maps. The methodology involves a qualitative content analysis and process tracing of the observations, interactions, and interview transcripts, coupled with an analysis of the mind maps to track knowledge development. With final findings still pending, initial observations indicate that participants have gained practice-based insights that they managed to readily implement within their organizations. This readily demonstrates that the learning community contributes to knowledge transfer and the enactment of new leadership practices.

Breaking boundaries: piloting transdisciplinary labyrinths with learning communities

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Lifelong Learning, Workplace Learning

Presenting Author: Marielle Taks, Fontys Hogescholen, Netherlands; **Co-Author:** Thieme Stap, Fontys University of Applied Science, Netherlands; **Co-Author:** Nard van den Langenberg, Fontys University of Applied Sciences, Netherlands

Universities of applied sciences (UAS) invest in learning communities to address complex transitional issues, transcending the boundaries between academia and the workplace. Within these learning communities the end user (e.g. clients/inhabitants) has a key role, which is often approached as a form of 'transdisciplinary collaboration' in the scientific literature. Literature contains a variety of definitions of transdisciplinary collaboration, and can sometimes feel like a complex labyrinth that is somewhat disconnected from practice. There is also still little experience with transdisciplinary collaborations. In order to learn more about the design of – and experiences in – transdisciplinary collaboration Fontys initiated a research project in collaboration with the six learning communities. The study aims to answer two questions: How does transdisciplinary collaboration take shape in learning communities? What role and tasks do boundary crossers need to facilitate such a collaboration? The qualitative research, partly based on arts-based methods, also serves as an intervention, sparking discussions and reflections among stakeholders about collaborations. The findings provide insights into the resources and barriers for transdisciplinary collaboration and are valuable for practitioners and researchers. In this roundtable discussion we want to engage with peers to identify common issues and determine future research directions to strengthen these collaborations.

Session E 7

27 November 2024 13:00 - 14:30

EA 138 (PXL NeXT Building A)

Roundtable

Higher education

Facilitating Transformative Learning and Support for Diverse Student Needs

Keywords: Authentic Learning, Blended Learning, Higher Education, Instructional Design and Instructional Strategies, Learning Analytics, Stakeholder partnerships, Teaching Approaches

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: Christy Tenback, RENNA, Netherlands

Identifying the (elusive) group process with learning analytics: A dream or reality?

Keywords: Blended Learning, Higher Education, Instructional Design and Instructional Strategies, Learning Analytics

Presenting Author:Tjark Huizinga, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Chantal Velthuis, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Tiuri De Jong, ROC van Twente, Netherlands; **Co-Author:**Petra Fisser, ROC van Twente, Netherlands; **Co-Author:**Kim Schildkamp, University of Twente, Netherlands; **Co-Author:**Irene Visscher - Voerman, Saxion University of Applied Sciences, Netherlands

With the increasing application of blended approaches in course design, opportunities for utilizing learning analytics arise. In this study, learning analytics are defined as 'measuring, collecting, analysing and reporting student data in the learning environment, with the aim to understand and optimize the learning process and the corresponding learning environment' (Siemens, 2013). This study aims to identify student characteristics which according to teachers are essential to support students' progress and improve their social connectedness. By using a design-based approach, teachers in the Health Domain from three different institutions, vocational education, a university of applied sciences and a research university are (re)designing courses. Learning environments are redesigned to be able to collect data about student characteristics that teachers want to uncover in their course. Design meetings notes and interviews with teachers were used to clarify design choices. Results show that teachers articulate the need to have insights in what learning activities their students undertake outside of the classroom like student preparation and the collaboration processes. Using learning analytics to identify and enhance students' social connectedness is more complex. While designing, teachers are aware of potential pitfalls, ethical issues related to using learning analytics and experience (institutional) boundaries of integrating learning analytics.

Outdoor Learning in Higher Education: University Didactics for Transformative Learning

Keywords: Authentic Learning, Higher Education, Stakeholder partnerships, Teaching Approaches

Presenting Author:Janne Fengler, University of Luxembourg, Luxembourg; **Co-Author:**Barbara Bous, University of Augsburg, Germany; **Co-Author:**Jule Hildmann, Center for Innovative Education, Poland; **Co-Author:**Wiebke Langer, University of Hamburg, Germany; **Co-Author:**Gunnar Liedtke, University of Hamburg, Germany; **Co-Author:**Martin Scholz, University of Augsburg, Germany; **Co-Author:**Rameder Paul, Competence Center for Nonprofit Organisation and Social Entrepreneurship, Austria

The benefits of learning outdoors for human health, well-being and cognitive and social functioning are well documented; so-called outdoor learning (OL) including out-of-school-/real-world-settings as well as problem-based, activity-orientated, authentic learning, can have significant impacts on knowledge and skills. OL can also be seen as a crucial approach to improve the impact of transformative learning in higher education (HE), especially in relation to the development of transformative competencies and green skills. However, such learning settings are only selectively used and there are currently no formal frameworks or guidelines. The central research questions of this project are: 1. What practices around OL in HE exist in different European countries? 2. How can university teachers be supported to implement good and innovative practices of OL in HE in different disciplines? An explorative multimodal mixed methods approach will be applied to record the existing OL practice at European universities. On this basis, prototype guidelines for good practice will be developed and evaluated in selected universities. Overall, the practice-based research project will contribute to a high quality use of OL in HE and thus contribute to students' benefits both in terms of health, well being, green skills as well as transformative competencies.

Session E 8

27 November 2024 13:00 - 14:30

B011 (PXL NeXT Building B)

Roundtable

Vocational education, Workplace learning

Facilitating Transitions to Sustainable Careers in Vocational Education

Keywords: Labour Market & Formal Learning, Mentoring, Practice-based Research (methodology), Professionalisation of Educators, Vocational Education

Interest group: CLOUD 05 - HRD & Workplace learning, CLOUD 11 - Practice-based Research Methodology

Chairperson: Marja Silén-Lipponen, Savonia University of Applied Sciences, Finland

a smooth transition from school to sustainable work or further education

Keywords: Labour Market & Formal Learning, Mentoring, Practice-based Research (methodology), Vocational Education

Presenting Author:V Schuurmans, Firda, Netherlands; **Co-Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands

Despite a prolonged period of declining youth unemployment, there has been an unfortunate increase in 2020 and 2021 due to the COVID-19 pandemic. As a result, the Dutch government introduced the National Education Program to mitigate the consequences of the crisis and prevent youth unemployment. The project discussed here investigates four approaches that have been implemented in their vocational schools. The main research question in this study is what the successful mechanisms of the implemented approaches are at the two vocational education institutions that may help to reduce youth unemployment? Through focus group interviews with project leaders, coaches, policymakers, and students, policy theories were developed in the form of Context, Interventions, Mechanisms, and Outcomes configurations (CIMO). The collected interview data was analysed using the CIMO approach to understand what active CIMO elements are in the approaches. The knowledge gained from this study will be used to inspire others who deal with similar issues. This study began in September 2022 and will conclude in December 2024.

Turning points of mentors when guiding in dynamic learning and working environments

Keywords: Mentoring, Practice-based Research (methodology), Professionalisation of Educators, Vocational Education

Presenting Author:Bianca Dusseljee, Firda, Netherlands; **Co-Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands

Hybrid learning and working environments in vocational education and training are environments that are designed in collaboration between educational and professional practice. In the environments we study, students and their mentors, such as teachers and work supervisors, who learn and develop simultaneously, while the environment is also constantly evolving. This requires mentors to have guiding and coaching agility as they navigate and influence different ongoing developments of students and themselves. The aim of the formative intervention study is to better understand this guidance agility in these non-common environments. In a first step of the complete research project we explored the contradictions that mentors and others experienced in relation to their mentoring. Data collection consisted of interviews with teachers, workplace supervisors and students, using a theory-based infographic to stimulate dialogue about guiding and coaching students. We observed richer data when conversations delved into the micro-level of guiding and coaching. This contrasts with the tendency of mentors to discuss their mentoring more generally. In this roundtable we try to discuss how to achieve a comprehensive understanding at all levels using the theory-based infographic and interview protocol.

Session E 9

27 November 2024 13:00 - 14:30
Pierre Cox (PXL NeXT Building D)
EAPRIL Cloud Spotlight Session
Higher education

CLOUD2:Supporting teachers in curriculum co-design w/ stakeholders towards more responsive curricula

Keywords: Continuing Professional Development in Teachers, Curricula, Higher Education, Innovations in Education
Interest group: CLOUD 02 - Educators' professional development

In order to remain responsive to changing needs of students, labor market and society, universities of applied sciences (UAS) in the Netherlands are challenged to renew curricula, in close collaboration with stakeholders, such as vocational professionals. Teacher Design Team literature states that teachers that engage in collaborative curriculum design (CCD) with other teachers require support, in order to be successful. The demand for responsive education challenges teachers to engage in curriculum co-design with other stakeholders and therefore adds socio-political complexity. This spotlight session introduces the results of an education design research (EDR) PhD project aimed at supporting teachers with their curriculum co-design practices with other stakeholders. Participants get a sneak preview of some of the developed interventions of this PhD project. In this workshop, they actively practice with two tools: dialogue cards and a team scan, both of which were iteratively developed earlier this year. Insights and interventions might inspire EAPRIL visitors in their curriculum design processes or the support thereof in other educational institutes.

CLOUD2:Supporting teachers in curriculum co-design w/ stakeholders towards more responsive curricula

Presenting Author:Maria Custers, ELAN, University of Twente, Netherlands; **Co-Author:**Anje Ros, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Susan McKenney, University of Twente, Netherlands

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Session E 10

27 November 2024 13:00 - 14:30
Erlich (PXL NeXT Building D)
EAPRIL Cloud Spotlight Session

CLOUD 12: Enhancing continuous professional development of school leaders: co-creation of tools

Keywords: Knowledge Building and Development, Leadership Development, Professional Development, Training and Development
Interest group: CLOUD 12 - Leadership in Education

April cloud Leadership in education Spotlight session: Enhancing continuous professional development of school leaders: co-creation of tools
Goal of the sessionIn this spotlight session we will focus on how school leaders themselves and their schoolboards or school districts can enhance continuous professional development for school leaders in different professional career stages (Daniëls, 2020). We want to utilize the expertise of the audience to think about solutions for the problem of continuous professionalization of school leaders and to develop tools in co-creation.

CLOUD 12: Enhancing continuous professional development of school leaders: co-creation of tools

Presenting Author:Anje Ros, Fontys University of Applied Sciences, Netherlands; **Presenting Author:**Loes van Wessum, Windesheim Zwolle, Netherlands;
Presenting Author:Wouter Schenke, Penta Nova, Netherlands; **Co-Author:**Michelle Brown, De Driemaster, Netherlands

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Session E 11

27 November 2024 13:00 - 14:30
Piot (PXL NeXT Building D)
EAPRIL Cloud Spotlight Session
Lifelong learning

CLOUD 14: new strategic direction: Education the policy-makers perspective

Keywords: 21st Century Learning, Educational Policy, Lifelong Learning, Organisation of Educational Research
Interest group:

We will discuss the new orientation of cloud 14 on education and policy makers. No EAPRIL cloud is currently focusing on the policy makers role. Therefore, the policy makers will be central in this new cloud. There is an interesting interaction between the practice based educational research and policy makers. On the one hand, policy makers can set the agenda for (more research) on education practice. Special interest will go to different kinds of initiatives for more responsible education. Policy makers focus on prevention, outreach and education to solve huge new societal challenges (often normative and adult education) See. e.g. UN responsible education initiatives. On the other hand, research on educational practice can guide policy making. Policy makes are important for the valorization of evidence based educational research.

CLOUD 14: new strategic direction: Education the policy-makers perspective

Presenting Author:Tom De Schryver, Ministerie van Defensie - Nederlandse Defensie Academie, Netherlands

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Session E 12

27 November 2024 13:00 - 14:30
Pacioli (PXL NeXT Building D)

CLOUD 10: Session 2 - Gaining perspective on and within Education for Sustainability

Keywords: Communities of Learners and/or Practice, Research-based Learning, Sustainability, Teaching Approaches

Interest group: CLOUD 10 - Education for Sustainability

Pedagogical approaches for incorporating multiple perspectives on sustainability issues in education The second Cloud 10 spotlight session explores pedagogical approaches to Education for Sustainability which actively give space to challenging, divergent and marginalized perspectives on sustainability issues. We will explore how pedagogical approaches deal with such perspectives. For example, in relation to climate change, different perspectives may shape how we understand the causes and consequences of the issue, the decision-making processes around responding to the issue, and the forms of climate action we take. Participants will experience and reflect on a series of snapshots of Education for Sustainability practices which actively engage with multiple perspectives. This workshop considers how these approaches may have implications for Education for Sustainability practices in different educational contexts.

CLOUD 10: Session 2 - Gaining perspective on and within Education for Sustainability

Presenting Author:Stella van der Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Benjamin Mallon, Dublin City University, Ireland

Pedagogical approaches for incorporating multiple perspectives on sustainability issues in education The second Cloud 10 spotlight session explores pedagogical approaches to Education for Sustainability which actively give space to challenging, divergent and marginalized perspectives on sustainability issues. We will explore how pedagogical approaches deal with such perspectives. For example, in relation to climate change, different perspectives may shape how we understand the causes and consequences of the issue, the decision-making processes around responding to the issue, and the forms of climate action we take. Participants will experience and reflect on a series of snapshots of Education for Sustainability practices which actively engage with multiple perspectives. This workshop considers how these approaches may have implications for Education for Sustainability practices in different educational contexts.

Session E 13

27 November 2024 13:00 - 14:30
Montessori (PXL NeXT Building D)
EAPRIL Cloud Spotlight Session
Higher education

CLOUD 08: Embracing Diversities?Neurodiversity & Internationalization of Higher Education Curriculum

Keywords: Diversity, Equality / Education for All, Higher Education, Inclusivity

Interest group: CLOUD 08 - Diversity & equality in different contexts

This Cloud 8 spotlight session explores diversity through a presentation on the topic of neurodiversity and a workshop about the internationalization of the higher education curriculum. The Health and Care Act 2022 introduced a statutory requirement in the UK that all regulated service providers must ensure their staff receive learning disability and autism training appropriate to their role. Students were surveyed across the three degree programmes, each of which utilise experts from different backgrounds at different times and in different ways. Responses highlighted a disparity in the involvement of EbEs between each programme, but also in the benefit to the students' learning and the lasting impact of each session which used EbEs as co-facilitators. Internationalization is often accepted as part of diversity and inclusion. This interactive workshop is for participants to enhance their understanding of curriculum internationalization. This workshop will explore ways to internationalize the curriculum to foster inclusion and intercultural competence and prepare students for success in an increasingly globalized world.

CLOUD 08: Embracing Diversities?Neurodiversity & Internationalization of Higher Education Curriculum

Presenting Author:Nick Gee, EAPRIL Chair, Birmingham City University, United Kingdom; **Presenting Author:**Sibel Inci, Kocaeli University, Turkiye; **Co-Author:**Anthony Thorpe, University of Roehampton, United Kingdom; **Co-Author:**Eylül Balâ Altunay, Kocaeli University, Turkiye

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Session E 14

27 November 2024 13:00 - 14:30
Blackbox (PXL NeXT Building D)
Symposium
Secondary education

The learning environment works: Linking the educational network to the material world

Keywords: Beliefs and Conceptions of Learning, Blended Learning, Innovations in Education, Primary School Education, Secondary School Education, Virtual Reality, Work Environments, Workplace Learning

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: Jo Tondeur, Vrije Universiteit Brussel, Belgium

Discussant: Ulrike Stadler-Altmann, Humboldt-University Berlin, Germany

It is widely recognised that the material landscape of education can impact teaching and learning processes. Given its inherent nature as a living space and active contributor to educational practice, the physical learning environment has also gained the label of 'third teacher'. Recently, school designers, architects, policymakers and other stakeholders have begun to identify common ground in revisiting the potential educational value of this 'third teacher' in thinking about both physical and digital learning spaces. While there is extensive research on digital tools and technology integration, there is limited recent research about the physical learning environment, so there is limited empirical evidence to fully understand the role and impact of the physical environment on learning and its relationship to digital learning.

In this symposium, three empirical studies will be presented with a strong focus on the interplay between the physical and digital learning environment, the pedagogical approaches and its users. In line with the main theme of the conference, we propose employing a holistic approach informed by place, pedagogy, and design. An approach that includes a range of contexts, actors and activities. Jo Tondeur will chair the session and the discussant of the symposium is Ulrike Stadler-Altmann. She is an expert in the design of learning environments and will link the three contributions to the main theme of the conference. In order to ensure interactivity with the audience we provide an interactive online tool with pictures of the learning spaces and opportunities to exchange.

Exploring the dynamics of student-centred learning in innovative learning environments

Presenting Author:Peter Bergström, Umeå University, Sweden; **Co-Author:**Maria Lindfors, Umeå University, Sweden; **Co-Author:**Annika Wiklund-Engblom, Umeå University, Sweden

The presentation outlines an ongoing longitudinal study (2018-2026) in a Swedish municipality, examining the relationship between the physical learning environment and teaching practices within an Innovative Learning Environment (ILE) following a school merger. With a focus on student-centered learning, it acknowledges the complexity of translating physical design into teaching practices. The study employs the Typology of Teacher Power and Control (TTPC) as a theoretical framework and a convergent mixed-method design to collect various data types, including classroom audio, teacher interviews, and questionnaires. Findings will inform a practice-based workshop with teachers to enhance student-centered activities, with subsequent phases of the study building upon workshop outcomes. The presentation aims to share insights from multiple perspectives, including emerging student-centered practices and findings from teacher and student questionnaires.

The DTALE model: Designing digital and physical spaces for integrated learning environments

Presenting Author:Jo Tondeur, Vrije Universiteit Brussel, Belgium; **Presenting Author:**Sarah Howard, University of Wollongong, Australia; **Co-Author:**Marijke Kral, HAN University of Applied Sciences, Netherlands; **Co-Author:**Lakshmi Ganesh, Shikha Institute of Education, Shantilal Shanghvi Foundation, India

The design of learning environments can impact teaching and learning processes. While much is known about online learning and digital integration in the classroom, relatively little is known about the interplay between physical and digital spaces. Therefore, we proposed a connected ecology approach to develop a new conceptual model for Designing Teaching and Learning Environments (DTALE). For the presentation, we first provide an overview of the literature underpinning learning environments, with a particular interest in the integration of the physical and digital space. Next, we present how the DTALE-model has been developed and validated by applying the model to existing cases from different contexts. Based on the findings, we outline the implications for practice, theory, and research.

School design and education: Teachers' and students' views on the designs of their new built schools

Co-Author:Ellen Saur, Norwegian University of Science and Technology (NTNU), Norway

The presentation focuses on user experiences with newly built schools with physical characteristics of Innovative Learning Environments; openness, flexibility of learning spaces, high-end technology, and furnishings to support desired practices of teachers' work and students' learning. We report from studies in 4 Norwegian primary and secondary schools exploring the impact of new school designs as seen from students' and teachers' point of view. We discuss the results using a relational school-climate model concerning the interplay between materiality of schooling and educational practices. Findings show that teachers and students were mostly satisfied with their new school buildings but also reported some challenging and critical topics with impact on educational activities and social climate and thus launched several experience-based recommendations for future school designs. Our presentation will highlight some issues that matter to teachers and students, which may be ignored in practice, and reflect on qualities teachers and students state as important for them in the designs of schools.

Session E 15

27 November 2024 13:00 - 14:30

B014 (PXL NeXT Building B)

Present & Discuss

Early childhood education, Primary education, Vocational education

Advancing Professional Development: Intercultural and Evidence-Informed Practices

Keywords: Continuing Professional Development in Teachers, Inclusivity, Multiculturalism in Education, Organisation of Educational Research, Practice-based Research (methodology), Professional Development, Professionalisation of Educators, Research Cooperation Frameworks

Interest group: CLOUD 08 - Diversity & equality in different contexts, CLOUD 11 - Practice-based Research Methodology

Chairperson: Maiza de Albuquerque Trigo, University of Luxembourg, Luxembourg

Co-constructing a professional development program towards intercultural early childhood education

Keywords: Inclusivity, Multiculturalism in Education, Practice-based Research (methodology), Professional Development

Presenting Author:Eva Dierickx, Artesis Plantijn Hogeschool Antwerpen, Belgium; **Co-Author:**Kato Luyckx, AP University of Applied Sciences and Arts, Belgium; **Co-Author:**Hajjar Ben Sliman-Ghomari, AP Hogeschool, Belgium; **Co-Author:**Nele De Witte, AP University of Applied Sciences and Arts, Belgium

The preschool period appears to be crucial to support positive intercultural attitudes and a healthy self-esteem. However, (early childhood) teachers often feel inadequately prepared to deal with diversity within the classroom and experience a need for support in intercultural and social justice education. The project Kleu(te)rRijk (2021-2023) addresses this need for professional development in intercultural early childhood (EC) education by co-constructing a high-quality and effective professional development program (PDP) for EC teachers. Following the method of educational design research, the project focused on collaborative partnerships and mixed methods to design and implement the PDP. Results from a pilot study with 12 teachers revealed improvements in various domains, including sensitive language use, self-awareness, intercultural didactical skills and cooperation skills. In conclusion, this research contributes to the field of practice-based educational research by providing evidence of the effectiveness of a systematic, contextualised and co-constructed PDP in enhancing EC-teachers' intercultural competences. Future research projects, like the Diversiwijs-project, aim to further advance the support in social justice education by broadening the target groups and exploring innovative approaches, such as video coaching, to enhance teacher professional development and promote equity in education.

The wallpaper roll method

Keywords: Organisation of Educational Research, Practice-based Research (methodology), Professional Development, Research Cooperation Frameworks

Presenting Author:Jeroen Rozendaal, University of Applied Science Rotterdam Hogeschool Rotterdam, Netherlands; **Presenting Author:**Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands

TitleThe wallpaper roll method: Synthesis of unique, disparate, idiosyncratic data in multiple case studiesGeneral abstractIf practitioners and researchers in a research-practice partnership (RPP) are to serve both the local practices and a broader audience, their research must be locally and transcendentally meaningful. For locally meaningful research, those involved must be able to make practice-relevant choices, including with respect to data collection. If, as a result, the nature of the collected data starts to differ between the cases, it appears to be challenging to cross-analyze and interpret these data. What research method can be used in situations like this?The RPP of this contribution developed the so-called wallpaper roll method. With this method, those involved in a case first visualize and organize locally collected data on a timeline. They conduct an in-depth dialogue. On this basis, they formulate statements about effective action repertoire. The statements of all cases together form the basis for a cross-case analysis from which results are mirrored to insights from other practical contexts and research literature. The approach is illustrated with a multiple case study in the Netherlands. It appears to be a valuable method, both local and transcendent. It is expected that other RPP's with shared ambitions, participatory and action-oriented approaches, and multiform data can benefit from this method.

Bridging Theory and Practice: Key elements of evidence-informed Practices in compulsory education

Keywords: Continuing Professional Development in Teachers, Practice-based Research (methodology), Professional Development, Professionalisation of Educators

Presenting Author:Emmelien Merchie, Leerpunt, Belgium; **Co-Author:**Dorien Jansen, Leerpunt, Belgium; **Co-Author:**Pedro De Bruyckere, Leerpunt, Belgium;

Co-Author:Isabelle Janssens, Leerpunt, Belgium

This presentation explores integrating evidence-informed research in primary and secondary education, emphasizing essential key elements, facilitating and limiting factors for practitioners. In evidence-informed research, educators can enhance teaching and learning outcomes through informed decisions. Drawing from a literature review, we identify important key elements, and factors in implementing evidence-based education, empowering educators with practical strategies and examples. We stress, among other things, the critical evaluation of evidence sources, including not only empirical studies or meta-analyses but also educators' insights and expertise. Through this holistic approach, educators navigate diverse research findings to ensure relevance and applicability in their classrooms. This presentation aims to equip educators to adopt evidence-informed practices aligning with their pedagogical goals and student needs, fostering continuous improvement in educational practices.

Session F 1

27 November 2024 14:45 - 16:15

B014 (PXL NeXT Building B)

Present & Discuss

Primary education

Collaborative Leadership and Succession in Education

Keywords: Educational Effectiveness and Quality of Education, Educational Policy, Leadership Development, Leadership Styles, Practice-based Research (methodology), Primary School Education, Professional identity, School Development

Interest group: CLOUD 12 - Leadership in Education

Chairperson: Henk Aversch, Netherlands

Networked and collaborative leadership - making the network work

Keywords: Educational Effectiveness and Quality of Education, Leadership Development, Professional identity, School Development

Presenting Author: Daniel Muijs, Queen's University Belfast, United Kingdom

In this paper I will discuss the role of leadership in networked and collaborative groupings of schools. These are a growing part of the landscape in a range of different education systems, and range from groupings which are formally constituted entities with a central role in the administration and governance of education, such as Multi-Academy trusts in England or 'stichtingen' in the Netherlands, to more informal school improvement networks. Leadership in networked environments of this nature requires different approaches from leaders both at the school and network level, and presents a number of specific challenges. In this presentation I will draw on a literature on school trusts from England, the Netherlands, Sweden, and the US to discuss key aspects of networked leadership, such as role definitions and identities, collaboration and hierarchy, & accountability and professional learning.

Intervening or not? Dilemmas of school leaders enhancing distributed leadership.

Keywords: Leadership Development, Leadership Styles, Primary School Education, School Development

Presenting Author: Marlon van de Put, Fontys Hogeschool Kind & Educatie, Netherlands; **Co-Author:** Anje Ros, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Marjan Vermeulen, Heerlen Open Universiteit, Netherlands

In order to secure their educational quality, increasingly more schools distribute leadership because of its focus on utilizing teachers' perspectives and expertise. School leaders play a crucial role in enhancing distributed leadership, however, many school leaders experience dilemmas during this process. For example whether or not to intervene when teachers act differently than expected. Scientific knowledge on types of dilemmas that school leaders experience when developing distributed leadership, and how they cope with dilemma's, is scarce. Therefore this study aims to answer the following research questions: *which types of dilemmas of school leaders enhancing distributed leadership can be identified, and how do school leaders cope with these dilemmas?* Qualitative data have been collected through five semi-structured (STARR) interviews combined with logbooks with five school leaders of Dutch primary schools. Preliminary results show that school leaders mention three main types of dilemmas related to 1) whether or not taking (back) control; 2) the extent of distributing power; and 3) teachers not meeting the school leaders' quality standard. School leaders primarily seem to engage in active coping strategies, such as guiding teacher leaders to develop their leadership capabilities and providing clear expectations. Some school leaders took back control from a hierarchical stance.

A practice-oriented succession framework for school leaders

Keywords: Educational Policy, Leadership Development, Practice-based Research (methodology), Primary School Education

Presenting Author: Loth Van Den Ouweland, Karel De Grote University College, Belgium; **Co-Author:** Hannelore De Greve, Karel De Grote University College, Belgium; **Co-Author:** Katelijne Barbier, Karel de Grote Hogeschool, Belgium

In Flanders, education is not only confronted with teacher shortages, but also with a lack of candidates for school leadership positions. Moreover, school leader attrition is significant. In this study, we therefore examined teachers' self-perceptions of their future school leadership potential, as well as possible actions for school boards to attract and retain suited school leaders in their schools. In our mixed method study, we 1) questioned teachers about their school leadership potential with questionnaires and follow-up interviews, 2) organized 3 focus group discussions with different educational stakeholders, and 3) co-developed actions for leadership orientation, development and recruitment with school boards and school leaders. In total, we cooperated with 3 school boards and 8 primary schools. Based on our findings, we can conclude that a proactive and purposeful leadership succession policy is needed. This policy is context-specific, based on a clear vision of what successful school leadership entails, and incorporates different actions for discovering, developing and retaining leadership potential in school teams. Combined with a clear recruitment strategy and an adequate support system for school leaders, this succession policy will help school boards to recruit and retain strong school leaders.

Session F 2

27 November 2024 14:45 - 16:15

Pacioli (PXL NeXT Building D)

Present & Discuss

Workplace learning

Collaborative Strategies for Improving Learning Environments

Keywords: Collaborative Learning, Equality / Education for All, Organisational Learning, Peer Interaction / Learning, Primary School Education, Professional Development

Interest group: CLOUD 02 - Educators' professional development, CLOUD 03 - Strategies to improve teaching and learning environments

Chairperson: Ann-Kathrin Steiner, University Tuebingen, Germany

Lesson Study to tackle behavioural issues: experiences from Dutch schools

Keywords: Collaborative Learning, Peer Interaction / Learning, Primary School Education, Professional Development

Presenting Author: Monique Nelen, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** martijn willemse, Windesheim University of applied sciences, Netherlands; **Co-Author:** Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands

In this exploratory study, we formed small professional learning communities of teachers cooperating in developing behavioural interventions for their classroom following the professional development approach Lesson Study (LS). In LS teachers collaboratively design, teach, observe, and analyse classroom lessons on a specific theme. The Dutch LS-model was piloted to support teachers in dealing with everyday challenging behavioural issues (LS-B). Seven Dutch primary schools participated, all implementing the School-Wide Positive Behavioural Interventions and Supports (SWPBIS) framework. The following research questions were addressed using data from interviews and dialogues of LS-B meetings: (1) *To what extent does LS-B contribute to teachers' professional development in*

addressing challenging behaviour in their classrooms? (2) How do teachers evaluate LS-B?(3) Does LS-B contribute to teachers' feelings of competence in dealing with everyday challenging behaviour? The findings showed that participating in LS-B meetings supported teachers' professional development in finding strategies to deal with everyday behavioural issues, especially the collaborative designing of behavioural lessons and discussing video observations. The LS approach is suitable for addressing the behavioural challenges faced by participating teachers, with an emphasis on preventing problem behaviour through the instruction of appropriate conduct in specific contexts.

Building cathedrals: turning towns into change labs

Keywords: Collaborative Learning, Equality / Education for All, Organisational Learning, Professional Development

Presenting Author:Jantien Gerdes, OSOF, Netherlands; **Co-Author:**Christian Van der Worp, Gemeente Kampen, Netherlands

In the Dutch city of Kampen, building inclusive practice in primary and secondary education is a collective story and shared aspiration for schoolteachers, child support professionals, and policy makers. These citizens ditched the desk-based master plan and began building with their own hands within their own school contexts. By continuously reflecting, sharing, exploring, improvising, and collaborating, they organically built a network for sustainable development in inclusive practices. The main focus of the associated research project is the collaborative learning of professionals in education and child support. The concept of Change Laboratories was the starting point, combined with the concept of emerging design. Regarding the collaboration between practitioners and researchers, this project helped shed light on how to bridge the gap between theory and practice in an organic way. The project itself evolved as a mutual learning endeavor between professional researchers and practitioners, resulting in a more equal and reciprocal learning process. The lessons learned and the principles derived from the research process were translated into broader policies. This ensured that the fundamental elements of the practice-based research approach were integrated into local official strategies to promote professional collaboration for inclusive education.

Session F 3

27 November 2024 14:45 - 16:15

Erlich (PXL NeXT Building D)

Present & Discuss

Higher education

Authentic Learning and Well-Being in Higher Education

Keywords: Doctoral Education (PhD education), Higher Education, Innovations in Education, Physical Education, Problem-based Learning, Project-based Learning, Training of Young Researchers, Well-being & Engagement

Interest group: CLOUD 04 - Improving learning and well-being

Chairperson: Kati Mäkitalo, University of Oulu, Finland

Challenge-Based Learning – the way to authentic and sustainable learning?

Keywords: Higher Education, Innovations in Education, Problem-based Learning, Project-based Learning

Presenting Author:Kerstin Helker, Eindhoven University of Technology, Netherlands; **Co-Author:**Isabelle Reymen, Eindhoven University of Technology, Netherlands; **Co-Author:**Miguel Bruns, Eindhoven University of Technology, Netherlands

Challenge-Based Learning (CBL) has been implemented in numerous educational contexts and prior research has found a variety of benefits for students, but data are usually collected during or right after the course which does not allow for inferences on whether these learning outcomes are lasting. This research undertakes a first attempt to explore the long-term learning gains in CBL by surveying CBL alumni one to several years after their participation in a CBL course, about their course motivation, (dis)advantages of CBL, key learnings and competence development. Alumni mentioned the freedom granted in CBL projects that required dealing with uncertainty and self-regulation both as advantages *and* disadvantages and described many key learning outcomes. Results support prior work regarding student learning outcomes of CBL. Furthermore, insights from this project fuel on-going discussions in CBL research and practice on what and how much guidance is needed and how learning outcomes can best be assessed, in order to best create authentic learning environments and sustainable learning outcomes.

Get moving for student well-being

Keywords: Higher Education, Innovations in Education, Physical Education, Well-being & Engagement

Presenting Author:Jolise 't Manneetje, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Resi Olde Olthof, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Elian de Kleine, Saxion University of Applied Sciences, Netherlands

Student well-being is getting more and more attention and partly due to the Covid-19 pandemic, the need for this is becoming even more obvious. Both mental and physical health are important to study successfully. In this innovation project, physically active learning is being experimented with within universities of applied sciences. Based on insights from, among other things, physically active learning in primary education, positive psychology and positive health, possibilities are being sought to contribute to students' learning and health through movement. As a first step, design principles are formulated for interventions for physically active learning within higher education. Based on these principles, the first interventions are developed and tested in different contexts. Effects among students are measured and recommendations for further improvement and development of new interventions are formulated. In this session, participants will be introduced in the theme and design principles, experience a form of physically active learning in higher education and gain insights into (possible) effects.

"Now I am no longer as alone" – Fostering Networks to Promote Young Talents in HE Didactics

Keywords: Doctoral Education (PhD education), Higher Education, Innovations in Education, Training of Young Researchers

Presenting Author:Hannah Sloane, Paderborn University, Germany

Neither the innovations developed to improve higher education teaching and learning nor the practice-based research conducted during the development of these innovations often transfer into other disciplines. This, combined with a lack of visibility within their own disciplines, influences the involved PhD students and early career researchers negatively. As part of a teaching project, we are developing formats offering opportunities for interactions beyond disciplinary boundaries including a workshop series focussing on transfer. Our practice context also leads to a network of formerly "lone" researchers. Research questions: 1) "How do the PhD students taking part in these workshops experience their own personal development and their own competencies?" 2) "How does the network of these PhD students develop over the course of the workshop programme?" We conducted interviews (N= 12) to answer the first research question: the participants all expressed that they have become better at working with each other. We conducted a quantitative network analysis to answer the second question: the results show that a network has been established and expanded. Our main conclusion for educational practice is that opportunities in which researchers in higher education didactics can interact and collaborate encourage the development of individual competencies and a robust network.

Session F 4

27 November 2024 14:45 - 16:15

EA 138 (PXL NeXT Building A)

Present & Discuss

Primary education, Workplace learning

Fostering Professional Development through Collaborative Partnerships in Education

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Continuing Professional Development in Teachers, In-service Teacher Training, Lifelong Learning, Organisational Learning, Professional Development, Stakeholder partnerships

Interest group: CLOUD 02 - Educators' professional development, CLOUD 05 - HRD & Workplace learning

Chairperson: Barbara Roosken, Fontys University of Applied Sciences, Netherlands

Enhancing lifelong learning through Practice Driven Routes: a partnership-based approach

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Lifelong Learning, Stakeholder partnerships

Presenting Author: Marieke Veltman, Windesheim University of Applied Sciences, Netherlands; **Presenting Author:** Simone de Roode, Windesheim University of Applied Sciences, Netherlands

In collaboration with health and welfare organizations, Windesheim University of Applied Sciences, offers Practice Driven Routes (PDR) in the part-time programmes Nursing, Social Work, and Associate Degree in Social Work in Healthcare. The PDR fosters a collaborative learning environment created through co-creation between teachers and health and welfare organizations, focusing on practical application in professional settings. Designed to address the complexities of professional roles and to promote (organizational) learning, the PDR emphasizes lifelong learning, co-creation, and practice-driven learning in professional learning communities as its core pillars. The PDR encourages professionals/students to shape their educational paths through self-direction and practical engagement in their work contexts. Supported by the Dutch Education Award 2023 (NRO), this research project aims to support further development and broader implementation of the PDR. It focuses on the following question: What does the partnership in the PDR require from the participants/involved organizations, and what does it bring them? To answer this research question, the study both focusses on the professional learning community, learning at the workplace, and the collaborative partnership at the meso-level, as well as their interrelations.

Monitoring the effectiveness of a school-university partnership to improve professional development

Keywords: Communities of Learners and/or Practice, Continuing Professional Development in Teachers, In-service Teacher Training, Stakeholder partnerships

Presenting Author: Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland; **Co-Author:** Edna Milena SARMIENTO MARQUEZ, Tallinn University, Estonia

School-University Partnerships (SUPs) are collaborative initiatives between research institutions and educational organizations aimed at fostering educational innovations and bridging the gap between research and practice. Despite their potential benefits, SUPs face challenges due to their long timespan and evolving nature, requiring negotiation of different visions and addressing organizational challenges within partner institutions. Evaluating factors like Autonomy, Relatedness, Usefulness, Implementation, and Stress within SUPs is crucial for understanding the dynamics of teacher professional development and the effectiveness of collaborative practices. This study assesses the effectiveness of a SUP in promoting autonomy, relatedness, usefulness, implementation, and low stress among stakeholders in science education in Swiss compulsory schools. Results indicate that teachers developed subject-specific-methodological competence significantly, suggesting long-term programs can impact teachers' skills. Motivational factors play a minor role in program implementation, with usefulness and stress significantly influencing integration into teaching practice. Soft coaching over a longer period is highlighted as beneficial for supporting developmental work and fostering a bottom-up development process.

Co-generating professional learning through teacher-researcher collaboration

Keywords: Communities of Learners and/or Practice, Organisational Learning, Professional Development, Stakeholder partnerships

Presenting Author: Maiza de Albuquerque Trigo, University of Luxembourg, Luxembourg; **Co-Author:** Thierry Frenzt, Ministry of Education, Luxembourg

This presentation examines a school-university partnership aimed at enhancing authentic learning and community engagement within a multilingual context. It focuses on the collaboration between a doctoral researcher and a teacher, working together to develop a professional development offering on Science and Language. Using sociocultural frameworks and ethnographically grounded methods, this contribution analyses the professional learning that emerges from the collaboration between the [blinded] team, especially focusing on the collaboration of the teacher and the researcher. This study draws on the team's previous work on a reflect-dialogue-act structure and highlights how examining this partnership can illuminate the dialogue between the concepts of communities of practice, distributed leadership, cogenerative dialogues, boundary spanning and professional learning. Through qualitative research approaches, datasets include video recordings, researchers' field notes, reflective pieces, and co-coding of team members' perspectives on the concept of "Science." The layered analysis emphasises the collaboration structure and its outcomes, contributing to a transformative approach to teacher education that values diverse voices and fosters authentic organisational learning. Findings reveal the impact of the co-development process on the teacher and researcher, as both observe each other's changes and reflect on their professional learning when returning to their respective teaching and research settings.

Session F 5

27 November 2024 14:45 - 16:15

B013 (PXL NeXT Building B)

Present & Discuss

Higher education

Enhancing Learning and Skills Development in Higher Education

Keywords: Authentic Learning, Blended Learning, Emotions and Emotional Development, Higher Education, Instructional Design and Instructional Strategies, Learning Styles / Approaches, Medical & Health Education, Research-based Learning, Training and Development

Interest group: CLOUD 02 - Educators' professional development, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Haili Hughes, IRIS Connect, United Kingdom

Helping students to explore which module to choose: Insights from a simulated exploration task

Keywords: Authentic Learning, Blended Learning, Higher Education, Instructional Design and Instructional Strategies

Presenting Author: Suzan van Brussel, Avans University of Applied Sciences, Netherlands; **Co-Author:** Johan Smarius, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:** Esther van der Stappen, Avans University of Applied Sciences, Netherlands; **Co-Author:** Mliou van Harsel, Avans University of Applied Sciences, Netherlands

We investigated 'blended guidance' for higher education students when compiling a personal learning route based on 15EC-modules, in which students are supported by a combination of humans (mentors) and technology. This study focused on an early phase of the choice process, namely the exploration-in-breadth, which we supported with a digital tool. Through a simulation task, we investigated how students deal with this phase in a mixed-method approach. Analysis of trace log data collected within the tool gave insights into how students explored the available modules within the tool. Additionally, through a survey, we asked them about their motives, experiences with the tool and what else they need in the remainder of the choice process to be able to make a well-considered choice for a module in their personal learning route. Results indicate that students differ in the way they approach exploration-in-depth and they appreciate the digital provision of information about modules and that the opportunity to mark interesting modules for later reference. They expressed the need to discuss their choices personally with their mentor, supporting the blended approach.

Research and development project on simulation pedagogy (PEDASIMU)

Keywords: Higher Education, Learning Styles / Approaches, Medical & Health Education, Research-based Learning

Presenting Author: Marja Silén-Lipponen, Savonia University of Applied Sciences, Finland; **Presenting Author:** Marja Äijö, Savonia University of Applied Sciences, Finland; **Co-Author:** Mirja Saukkonen, Savonia University of Applied Sciences, Finland; **Co-Author:** Suvu Aura, Savonia University of Applied Sciences, Finland

Simulation-based teaching is extensively utilized in social and healthcare education. The PEDASIMU research and development project aimed to assess the status of simulation teaching and identify areas for improvement at Savonia University of Applied Sciences. Conducted between 2021 and 2024, the project focused on implementing a large-group simulation, remote simulation, and hybrid simulation, while also exploring educators' and students' perceptions of various simulation modalities. Findings indicated that Savonia's simulation curricula and teaching practices in the social and healthcare fields were generally of high

quality, but also highlighted some areas for enhancement. Specifically, there was a need for better scheduling of simulations to optimize time usage. Additionally, a more comprehensive needs assessment of simulation teaching, evaluation of simulation complexity, and a systematic progression of complexity throughout the curriculum were identified as necessary improvements. Building upon the outcomes of this research and already existing research, the project developed an evidence-based simulation pedagogy model along with guidelines for educators to design and assess simulation activities. The research findings and evidence-based resources generated by the project are expected to inform the planning and execution of simulation education, thereby ensuring the continued quality of social and healthcare education at Savonia University of Applied Sciences.

Authentic pedagogy to enhance soft skills development in human services programs.

Keywords: Authentic Learning, Emotions and Emotional Development, Higher Education, Training and Development

Presenting Author:stephanie hovington, Université Laval, Canada; **Co-Author:**Denis Bédard, University of Sherbrooke, Canada; **Co-Author:**Sarah Dufour, Université de Montréal, Canada

Helping students to develop soft skills is an essential function of human services education. However, the literature on soft skills development shows that university training does not give sufficient importance to the affective domain of learning that is considered necessary for successful practice in a profession of human interaction (Dionne, 2020; Goyette, 2019). Our study provides insights into the following question: How does initial training contribute to the development of soft skills at the onset of professional practice in psychoeducation? Embedded within the paradigm of qualitative/interpretive methodology, this research aims to describe the perceptions of 46 French Canadian master's students and 26 university faculty regarding the teaching and learning of soft skills within a guidance counselling program. The contents of group interviews with students and individual interviews with faculty were subjected to thematic analysis. The results indicate that authentic, active and reflective pedagogical practices enhance the utilization of soft skills among students and that formative feedback on learning can support the development of soft skills in the training process. The results were contextualized with current knowledge in higher education pedagogy and provide complementary and essential insights into understanding the contributory factors to the dynamics of teaching and learning soft skills.

Session F 6

27 November 2024 14:45 - 16:15

B012 (PXL NeXT Building B)

Present & Discuss

Lifelong learning, Primary education

Monitoring Self-Regulated Learning and Soft Skills Development in Education

Keywords: 21st Century Learning, Assessment and evaluation, Cognitive Skills & Development, Lifelong Learning, Metacognition and Metacognitive Learning, Motivation

Interest group: CLOUD 04 - Improving learning and well-being

Chairperson: Nick Gee, United Kingdom

A dutch website to monitor and increase the self-regulated learning of primary school pupils

Keywords: 21st Century Learning, Lifelong Learning, Metacognition and Metacognitive Learning, Motivation

Presenting Author:Natalie Boelen, Hogeschool PXL, Belgium; **Presenting Author:**Jolien Quinten, Hogeschool PXL, Belgium

The overall objective of this research is to monitor and increase the self-regulated learning of school pupils from 10 – 12 years. SRL is a multidimensional concept of which several definitions can be found in the international literature. So an in-depth literature review is very important. We decided to blend the definitions of Zimmerman (2009) and Panadero (2014):

"SRL is an interplay of cognitive, metacognitive, motivational and emotional processes that a learner deploys to achieve learning goals. It's an active process in which learners take control of their own learning."

In the current study, we describe how we've created and validated a measuring instrument to monitor students' self-regulation skills. Our research question is: "How can we map self-regulation of primary school pupils by a dashboard and how can we gain insight into the relationship between the teacher's approach and students' self-regulation skills?"

The measuring tool is implemented on a website which provides schools an instrument to measure and monitor students' self-regulated learning. The website incorporates a dashboard function for teachers, the results are displayed automatically and shown in graphs at school, class and student-level.

Unlocking soft skills: Development and Validation of a Questionnaire for Measuring Soft Skills

Keywords: 21st Century Learning, Assessment and evaluation, Cognitive Skills & Development, Lifelong Learning

Presenting Author:Ellen De Bruyne, AP University of Applied Sciences and Arts Antwerp, Belgium; **Co-Author:**Amber Hoefkens, AP University College Antwerp, Belgium; **Co-Author:**Peter David, AP University of Applied Sciences and Arts, Belgium

Measuring soft skills is crucial for fostering individual (career) success, enhancing organizational performance, and ensuring that education and training programs are aligned with the demands of the workplace. The present study on developing and validating a self-assessment questionnaire for soft skills addresses fundamental questions concerning soft skills assessment for job seekers and students. Using a methodology that includes a literature review for behavioural indicators, content validity checks, pilots and factor analyses, the study aims to identify high-quality items and evaluate the reliability of scales within the questionnaire. Results indicate that while some scales demonstrate good construct validity, others require refinement. This was achieved by two pilot studies. Multi-group confirmatory factor analyses reveal gender-based differences in the interpretation of certain constructs. The implications suggest that the questionnaire holds promise as a valuable resource for career counsellors, internship mentors, HR supervisors, job seekers, and students providing a user-friendly interface and reliable metrics to foster awareness and development of soft skills.

Session F 7

27 November 2024 14:45 - 16:15

B032 (PXL NeXT Building B)

Present & Discuss

Early childhood education, Primary education

Advancing Early Literacy: Professional Development and Progress Monitoring

Keywords: Early Childhood Education, Equality / Education for All, Language Education, Practice-based Research (methodology), Primary School Education, Professional Development, Professionalisation of Educators, Reading

Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development

Chairperson: Christina Misailidou, National and Kapodistrian University of Athens, Greece

How a hybrid professional development program on interactive book reading makes a difference

Keywords: Language Education, Primary School Education, Professional Development, Reading

Presenting Author:Iris Vansteelandt, AP University College/Ghent University, Belgium; **Co-Author:**Jona Hebbrecht, Odisee University College, Belgium; **Co-Author:**Hilde Van Keer, Ghent University, Belgium; **Co-Author:**Silke Vanparys, Ghent University, Belgium; **Co-Author:**Elaine Decraene, Ghent University, Belgium; **Co-Author:**Lore De Cock, Ghent University, Belgium; **Co-Author:**Fien De Smedt, Ghent University, Belgium

How does interactive book reading (IBR) become truly effective and motivating? How can this approach be implemented schoolwide? These and other questions form the basis of #everyonereadsaloud, a hybrid professionalization program for kindergarten and primary school teachers and school teams. In this

session we will present and discuss the development of the professionalization program and its impact on kindergarten and primary school teachers' competencies.

How phoneme awareness and letter knowledge training effects early literacy skills: a 3-years study

Keywords: Early Childhood Education, Primary School Education, Professionalisation of Educators, Reading

Presenting Author:Lieve Van Severen, University College Odisee, Belgium; **Co-Author:**Evelien Gheeraert, Odisee, Belgium; **Co-Author:**Marlies Algoet, Odisee, Belgium; **Co-Author:**Eva Staels, Artesis Plantijn Hogeschool Antwerpen, Belgium; **Co-Author:**Willem Van Den Broeck, Vrije Universiteit Brussel (VUB), Belgium

The purpose of this experimental longitudinal pilot study is to examine the effects of 'Kaatje Klank', a playful preventive pre reading program for ECE children. The program focuses on instruction in phonemic awareness, grapheme-phoneme correspondences and (invented) spelling. In this study, 267 Flemish young children (age: 4 – 6) were randomly assigned to a three-year experimental intervention condition: the 'Kaatje Klank' intervention, or to a control condition in which teachers followed their usual routine. They were followed up for three consecutive years, up to and including the end of first grade. They were tested a total of nine times, three times per school year. What are the effects of the 'Kaatje Klank' intervention on the development of phoneme awareness itself, on beginning letter knowledge, and on reading and spelling skills during the school year of formal reading instruction? We also examined the causal role of developing phoneme awareness for reading skills. During this session we will present the results. Practical implications for the didactics of (preparatory) reading are discussed.

Co-creating tools to monitor first graders' progress in reading

Keywords: Equality / Education for All, Practice-based Research (methodology), Primary School Education, Reading

Presenting Author:Eve Francotte, UCLouvain, Belgium; **Co-Author:**Liesje Coertjens, Université catholique de Louvain (UCL), Belgium; **Co-Author:**Stéphane Colognesi, Université catholique de Louvain (UCL), Belgium

Progress monitoring, regularly measuring pupils' mastery levels and differentiating instruction accordingly, is a promising practice to reduce the reading achievement gap due to pupils' socio-economical background. To bridge the research-practice gap, partnerships between teachers and researchers have been recommended to allow teachers' complex realities to be considered. Using an iterative and participatory process inspired by *practice-embedded research*, this study set out to (1) co-construct tools to monitor first-graders' progress in reading, and (2) examine how these tools met teachers' needs. Five teachers co-constructed four tools during four focus group sessions. The transcribed discussions were analyzed using an interactional framework containing three areas of knowledge: shared, accepted, and disputed. Results indicated three shared needs: perceived usefulness, flexibility of the tools, and limiting the workload. Teachers accepted that needs varied regarding the goal for progress monitoring and the format of the evaluation. They had lengthy discussions on balancing workload and perceived utility, leading them to conclude that there were two groups of teachers, varying on the perceived added value of the progress monitoring tools for struggling pupils compared to their habitual practices. Theoretical and practical implications of these findings are discussed.

Session F 8

27 November 2024 14:45 - 16:15

EA 139 (PXL NeXT Building A)

Present & Discuss

Higher education, Lifelong learning

Improving Self-Regulation and Inquiry Through Collaborative Practices

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Continuing Professional Development in Teachers, Creativity, Deep-level and Profound Learning, Innovations in Education, Inquiry Learning, Peer Interaction / Learning, Self-efficacy, Self-regulation and Self-regulated Learning

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being

Chairperson: Lisette Munneke, Utrecht University of Applied Sciences, Netherlands

Can cocreation and generative coaching improve self-regulation, self-efficacy and academic efficacy?

Keywords: Creativity, Innovations in Education, Self-efficacy, Self-regulation and Self-regulated Learning

Presenting Author:Els Laenens, University of Antwerp, Belgium; **Co-Author:**Ellen Vandervieren, University of Antwerp, Belgium

In this action research study we investigate the impact of co-creation and generative coaching activities on students' self-regulation, self-efficacy and academic efficacy in the context of higher mathematics education. Three experimental courses characterized by co-creation and generative coaching and three control courses (without co-creation and generative coaching) are involved. In three successive semesters, students of the bachelor's programme in computer science attended one experimental and one control course. Questionnaire data were used to answer the research questions: (RQ1) 'To what extent do students perceive a difference between the learning environments of the control and the experimental courses?' and (RQ2) 'To what extent is there a difference in (1) self-regulation, (2) self-efficacy and (3) academic efficacy in a learning environment that students perceive as co-creative with generative coaching vs. in a learning environment that students perceive as traditional?' Descriptive statistics and paired t-tests show statistically significant and practically significant impacts of co-creation and generative coaching on students' self-regulation skills, self-efficacy and academic efficacy. The results show that it is worthwhile to invest in co-creation and generative coaching in learning environments in order to boost students' learning.

Who Let the Voices Out? Multivoicedness in Students' Descriptions of their Disciplines

Keywords: Collaborative Learning, Communities of Learners and/or Practice, Innovations in Education, Peer Interaction / Learning

Presenting Author:Sabrina Schmöckel, University of Paderborn, Germany

For students it can often be difficult to see and understand how their discipline functions. But does it really make a difference for their personal development if they understand how they work? Would working across disciplinary boundaries foster understanding of disciplinary characteristics, and if so, how might that alter students' narratives about their discipline? To answer these questions I conducted semi-structured interviews in which I asked students to talk about their experiences within their disciplines and specifically moments of irritation, which I then analysed using theories of dialogism and multivoicedness. The research question is which and whose collective and personal voices students use to construct these narratives. Results show that talking about and reflecting on disciplinary cultures within a multidisciplinary peer group strengthens students' use of collective voices, especially those of the disciplines themselves. This indicates that, by exploring their disciplinary culture, students feel more confident knowing and understanding their disciplines. Because of this, they feel more secure in using collective voices of the discipline within their own personal voices, which results in stronger identification with their discipline. My research has also indicated that such discussions create an open and innovative teaching and learning experience.

The value of the Question Compass as a conceptual tool for teachers to support question quality

Keywords: Continuing Professional Development in Teachers, Deep-level and Profound Learning, Innovations in Education, Inquiry Learning

Presenting Author:Harry Stokhof, HAN University of Applied Sciences, Netherlands; **Co-Author:**Helma Oolbekkink-Marchand, HAN University of Applied Sciences (UAS), Netherlands

Student questioning has multiple benefits for teaching and learning in multiple domains, but for optimal use in classrooms, teachers need to foster the quality of student questions. Although conceptual tools have been reported to support the development of complex pedagogical expertise, it was not yet clear a) what conceptual tool could help teachers foster student question quality and b) what specific features of such a conceptual tool would be supportive for their professional learning. For this study, we developed the Question Compass as a conceptual tool for guiding question quality and identified five features of the conceptual tool that were expected to support the teachers' professional learning. As a method we used a participatory design-based research strategy to

explore if and how primary school teachers could apply the Question Compass and how they perceived its support for the development of their pedagogical expertise. Findings show that the Question Compass as a conceptual tool supported the collaborative professional learning of teachers when designing, implementing and evaluating professional experiments and in this way fostered teachers' development of the complex pedagogical expertise. Furthermore, we identified what features of conceptual tools support professional learning for highly contingent and contextualized learning contexts.

Session F 9

27 November 2024 14:45 - 16:15

B031 (PXL NeXT Building B)

Present & Discuss

Higher education

Improving Teaching Quality and Learning Outcomes in Education

Keywords: Cooperative Learning, Distance Education, Educational Attainment & Achievement, Educational Effectiveness and Quality of Education, Instructional Design and Instructional Strategies, Primary School Education, Qualitative and Quantitative Approaches to Learning and Instruction, Secondary School Education, Teaching Approaches

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being

Chairperson: Michiel Veldhuis, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Effectiveness of Finance & Accounting Education for Undergraduate International Business Students

Keywords: Educational Attainment & Achievement, Educational Effectiveness and Quality of Education, Qualitative and Quantitative Approaches to Learning and Instruction, Teaching Approaches

Presenting Author: Kateryna Grabovets, Hanze University of Applied Sciences, Netherlands

At the Dutch Universities of Applied Sciences, the relatively high student drop out rate, as well as the study delay are seen as impediments towards the overall study success. The International Business undergraduate programme is not an exception to this. The focus of this paper is on the Finance and Accounting courses, which are generally perceived as pretty difficult by IB students. The objective is to explore the major bottlenecks in the Finance and Accounting applied higher education provided at the undergraduate IB programme in the Netherlands. The paper also aims at formulating propositions towards improving the effectiveness of the aforementioned education, contributing to better academic results. The research methodology is based on two surveys – a teacher survey and a student survey. The results reveal a lack of student understanding of the relevance of the studied materials for the future, as well as insufficient motivation. In such an environment, a systemic application of active learning methods, such as gamification, supported by well-designed professional study materials, or a more rigid learning system based on traditional didactics enforced through incentives and some elements of student external control can enhance the effectiveness of teaching and learning, showing a potential to increase student retention, although do not necessarily help to profoundly tackle some major challenges related to student motivation and Math skills.

A quality framework for learning and teaching materials in compulsory education in Flanders

Keywords: Educational Effectiveness and Quality of Education, Instructional Design and Instructional Strategies, Primary School Education, Secondary School Education

Presenting Author: Kim Bellens, Thomas More University College, Belgium; **Co-Author:** Mitte Schroeven, Thomas More University of Applied Sciences, Belgium; **Co-Author:** Henk Byls, henk.byls@thomasmore.be, Belgium; **Co-Author:** Pieter Verachtert, Thomas More University of Applied Sciences, Belgium; **Co-Author:** Paul Kirschner, Thomas More University of Applied Sciences, Belgium

Flanders had experienced a decline in educational quality in recent decades. Public opinion often refers to the instructional (pedagogical) quality of learning materials to explain this decline. This is, amongst others, based on the fact that research has shown that learning materials shape to a large extent the teacher classroom practices. Since information about the quality of learning materials in Flanders is scarce, a need was perceived for a way to determine their quality. In this research project, the central research question is: "How can proven principles of effective learning and instruction be applied in learning materials for primary and secondary education, so that they optimally support effective and efficient student learning?" We first created a quality framework based on insights from teacher effectiveness research, cognitive psychology and instructional psychology. Then, based on focus group discussions and expert feedback, the quality framework was further refined to meet the needs of the stakeholders in the Flemish educational system. This resulted in a framework with 14 criteria. In developing the framework, we also paid attention to the interaction between learning materials and teachers.

Teaching quality during distance learning - Lessons from the Covid-19 pandemic

Keywords: Cooperative Learning, Distance Education, Educational Effectiveness and Quality of Education, Qualitative and Quantitative Approaches to Learning and Instruction

Presenting Author: Julian Brauchle, University of Teacher Education St.Gallen, Switzerland; **Co-Author:** Valentin Unger, St.Gallen University of Teacher Education, Switzerland; **Co-Author:** Laura Schmidberger, Universität Stuttgart, Germany; **Co-Author:** Jan Hochweber, St. Gallen University of Teacher Education, Switzerland

Investigation for quality criteria for teaching has occupied teaching-learning research for decades. Distance learning during the Covid-19 pandemic has added a new dimension to this issue. This study examines the extent to which the criteria of good teaching can be transferred to distance learning and where the focus may differ in order to establish good distance learning. Using a latently modeled multivariate regression model with data from $N=1207$ students from Germany and Switzerland, the quality criteria for regular teaching are tested to determine whether they can predict relevant outcomes of distance learning. The study concludes that the criteria of good teaching can only be applied to a limited extent to distance learning outcomes. In a second step, responses to open-ended questions and information about the learning formats used were analyzed to generate exploratory indications of which factors students believe should be strengthened in good distance learning, to generate ideas on teaching quality during distance learning. The students stated that contact and communication with their classmates is particularly important but is rarely implemented. These findings were used as an occasion to develop an OER to show teachers how to implement digitally supported collaborative learning in distance education.

Session F 10

27 November 2024 14:45 - 16:15

Pierre Cox (PXL NeXT Building D)

EAPRIL Cloud Spotlight Session

CLOUD 01: Deepening the key concepts in teacher education

Keywords: Initial Teacher Education (Pre-service), Internships, Professional Development, Workplace Learning

Interest group: CLOUD 01 - Teacher education

During the vibrant cloud spotlight session in Belfast (2023 Eapril conference), we discussed what themes are most prominent in all our teacher education practices and therefore should be in our clouds' focus. Based on what was discussed, the cloud 1 Teacher education focus can be clustered round three main themes:

1) Student teachers' development: professional identity, agency, competence, repertoire, content knowledge, inquiry/evidence-based learning
2) Teachers' learning environment: practice-based learning and institute-based learning, the balance between practice and institute-based learning, relation between teacher education institutes and workplace, boundary crossing, theory and practice connection, context learning.
3) Actual developments in teacher education: inclusive teacher, status of the teacher, minimize the shortage of teachers. So every main theme has some subthemes. During the cloud 1 spotlight session 2024 we

deepen the different (sub)themes, organising smaller groups. Every group has an expert who introduces the (sub)theme and shares some insights about what we know about this (sub)theme. After that joint knowledge creation will start based on the expertise of the participants and combined with some scientific sources, so a deeper understanding of the theme will be realised. Finally, the participants will be encouraged to find similar or inspiring practices which potentially can lead to (future) projects within this cloud.

CLOUD 01: Deepening the key concepts in teacher education

Presenting Author:Tom Adams, Koning Willem 1 College, Netherlands; **Presenting Author:**Bob Koster, Fontys University of Applied Sciences, Netherlands

During the vibrant cloud spotlight session in Belfast (2023 Eapril conference), we discussed what themes are most prominent in all our teacher education practices and therefore should be in our clouds' focus. Based on what was discussed, the cloud 1 Teacher education focus can be clustered round three main themes:

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Session F 11

27 November 2024 14:45 - 16:15

B011 (PXL NeXT Building B)

Workshop

Social media simulator "SOMEKONE" – an educational tool for understanding explainable AI

Keywords: 21st Century Learning, Artificial Intelligence, Primary School Education, Secondary School Education

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

In this workshop, we are introducing the social media simulator, which is an example of explainable AI (XAI). The tool is named "Somekone" and with this tool, we explore together with children and youth the key phenomena of social media, such as tracking, profiling and recommendation (Pope et al., 2024). Somekone simulates familiar social media services that children and youth use (e.g. Instagram). The aim of the workshop is to increase the participants' understanding about the basic mechanisms (tracking, profiling, recommendation) of explainable AI which is used in social media systems. Participants are guided to use this social media simulation and several tasks are given to do in pairs. The presenters are with this social media simulation visualizing these basic mechanisms and with different tasks we explore together these mechanisms in more detail. At the end, we discuss how the use of social media is influencing us, in positive and negative ways. This social media simulator is designed for the use of different age groups, namely children and youth. We provide the materials and tools for teachers to educate their pupils and students. However, this is a very useful method for everyone to better understand how social media systems function.

Social media simulator "SOMEKONE" – an educational tool for understanding explainable AI

Presenting Author:Kati Mäkitalo, University of Oulu, Finland; **Presenting Author:**Megumi Iwata, University of Oulu, Finland; **Co-Author:**Sanna Merikanto-Tolonen, University of Oulu - Faculty of Education and psychology, Finland; **Co-Author:**Jussi Koivisto, CodeSchool Finland, Finland; **Co-Author:**Jari Laru, University of Oulu, Finland

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Session F 12

27 November 2024 14:45 - 16:15

Corbu (PXL NeXT Building D)

Workshop

Vocational education

Narrative photo futuring as a method to support goals in school-to-work transitions

Keywords: Diversity, Lifelong Learning, Practice-based Research (methodology), Special Educational Needs

Interest group: CLOUD 08 - Diversity & equality in different contexts

In this workshop participant will experience working with narrative photo futuring as a research method and a method to guide adolescents during school-to-work transition. I will demonstrate the use of narrative photo futuring shortly by explaining the method and how it was used as a research method, during my phd-research. After this introduction, participants hands-on experience the method themselves, based on photo sets that are developed for different target groups e.g. students with intellectual disabilities and refugees. They will cut and glue their perceived future goals following the method. There will also be a photo set available for educational researchers themselves, because we all need to think about future career steps sometimes. First results of using this method show more in-depth answers from respondents, a more informal way of collecting data and a good opportunity to focus on the narrative of the respondent in stead of the questions of the researcher (Gerritsen, 2024).

Narrative photo futuring as a method to support goals in school-to-work transitions

Presenting Author:maritza gerritsen, Hogeschool Arnhem Nijmegen, Netherlands

In this workshop participant will experience working with narrative photo futuring as a research method and a method to guide adolescents during school-to-work transition. I will demonstrate the use of narrative photo futuring shortly by explaining the method and how it was used as a research method, during my phd-research. After this introduction, participants hands-on experience the method themselves, based on photo sets that are developed for different target groups e.g. students with intellectual disabilities and refugees. They will cut and glue their perceived future goals following the method. There will also be a photo set available for educational researchers themselves, because we all need to think about future career steps sometimes. First results of using this method show more in-depth answers from respondents, a more informal way of collecting data and a good opportunity to focus on the narrative of the respondent in stead of the questions of the researcher (Gerritsen, 2024).

Session G 1

27 November 2024 16:45 - 18:15

Pierre Cox (PXL NeXT Building D)

Present & Discuss

Higher education

Engagement and Inclusion in Higher Education

Keywords: At-risk Students, Authentic Learning, Collaborative Learning, Equality / Education for All, Higher Education, Lifelong Learning, Philosophy of Education, Stakeholder partnerships

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Harry Stokhof, HAN University of Applied Sciences, Netherlands

Community Service Learning effectively contributes to interprofessional education

Keywords: Authentic Learning, Collaborative Learning, Higher Education, Stakeholder partnerships

Presenting Author: Anne Hardy, HOGENT, Belgium; **Co-Author:** Sonia Labeau, HoGent, Belgium; **Co-Author:** Leen Van Landschoot, HoGent, Belgium; **Co-Author:** Hildegard Gobeyn, HoGent, Belgium

This mixed method study aimed to explore students' and coaches' experiences, and students' interprofessional competencies acquired through participation in an Interprofessional Community Service Project that was initiated as an elective for last-years bachelor students within the HOGENT Schools of Healthcare and Social Welfare. Data were collected among all students who participated in the project in the academic years 2021-2022 and 2022-2023: (a) quantitative pre-posttest data on interprofessional competencies were obtained using three Likert scale-based self-reporting tools, and (b) qualitative data were acquired through interviews and written narratives. The data of 56 of the 57 students who participated in the project were eligible for analysis. They suggest that Interprofessional Community Service Learning is a valuable methodology for optimizing interprofessional competencies, and that, moreover, can instigate learning gains in several other important domains. The administrative and practical organisation of interdisciplinary/crossdepartmental projects poses, however, various challenges. Full endorsement by and support of institutional policy makers are important facilitators to overcome these barriers.

Unlocking potential – stimulating HE participation of at-risk students

Keywords: At-risk Students, Equality / Education for All, Higher Education, Stakeholder partnerships

Presenting Author: Zachary Ergish, UCLL, Belgium; **Co-Author:** Reinhilde Pulinx, University College Leuven -Limburg, Belgium; **Co-Author:** Els Teijssen, UCLL, Belgium; **Co-Author:** Wim Wiertz, UCLL, Belgium

Research shows that the participation rate of young people in higher education (HE) in the province of Limburg is lower than in the rest of Flanders, Belgium. Specific challenges arise within the former mining communities. The research project 'Unlocking Potential' aims to reduce the gap between at-risk young people in Limburg (Belgium) and higher education (HE), particularly the undergraduate courses of UCLL. In the first phase of the project, we identified barriers that young people face when accessing higher education, specifically in Limburg. A broad target group of representatives of youth organizations (N: 22), schools (N: 6), and young people (N: 88) were interviewed. Based on the barriers identified, we implemented a support trajectory prior to entering HE, that included skill-building workshops and study guidance for these young people. The results of the project contain elements that can help UCLL, but also other HE institutions, to respond to the needs of these vulnerable young people to optimize the transition of this group to higher education.

Hannah Arendt's Model for Enhancing Public Engagement in Higher Education

Keywords: Higher Education, Lifelong Learning, Philosophy of Education, Stakeholder partnerships

Presenting Author: Kiran Tomas Brande, Aeres Group, Netherlands; **Co-Author:** Emmy Vrieling, Open University of the Netherlands, 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

In this Present & Discuss session the authors would like to touch upon their conceptual study. It explores the application of Hannah Arendt's philosophical principles to enhance public engagement in higher education. Through qualitative analysis of Arendt's work and a review of educational literature, the research develops a conceptual model illustrating the operationalization of Arendt's concepts in educational settings. The study highlights the potential of Arendt's model to foster public engagement and emphasizes the need for further conceptualization for practical application. The research contributes to bridging the gap between theory and practice in public engagement within higher education institutes, offering insights for enhancing dialogue, collaboration, and accountability with diverse stakeholders/ the public.

Session G 2

27 November 2024 16:45 - 18:15

B013 (PXL NeXT Building B)

Present & Discuss

Higher education

Innovative Approaches in Teacher Education

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Gender Issues, Initial Teacher Education (Pre-service), Peer Interaction / Learning, Pre-school Education / Kindergarten, Primary School Education, Project-based Learning, Teaching Approaches

Interest group: CLOUD 01 - Teacher education

Chairperson: Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Second career teachers and behaviour and classroom management in teacher training

Keywords: Collaborative Learning, Initial Teacher Education (Pre-service), Peer Interaction / Learning, Primary School Education

Presenting Author: Monique Nelen, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** martijn willemsse, Windesheim University of applied sciences, Netherlands

Many countries face growing teacher shortages in both primary and secondary education. Investing in recruiting and training second-career teachers (SCTs) has been seen as one of the solutions to address this problem. However, a Dutch study (Arbeidsmarkt Platform Primair Onderwijs, 2019) showed that SCTs in primary education experienced a lot of stress during their teacher education program caused by content and treatment by teacher educators not meeting SCTs' needs, rigid procedures for obtaining exemptions, and lessons and assignments not aligning with their daily practice. To be able to design a tailor-made teacher education program taking into account SCTs' specific support needs as adult learners, we first performed a systematic literature review on design principles for education programs for SCTs. Hence, as dealing with students' (problem) behaviour and poor classroom management skills play an important role in leaving the teaching profession, we conducted a design based study to pilot a module in the SCTs teacher education program for primary education to support SCTs' learning in dealing with classroom and behavioural issues. The guiding research question was: *What are beneficial characteristics for SCTs' teacher education programs (a) in general and (b) focused on classroom management and behavioural issues in primary education?*

Learning in Motion: adopting gender-responsive, play-based pedagogies in teacher education

Keywords: Continuing Professional Development in Teachers, Gender Issues, Initial Teacher Education (Pre-service), Teaching Approaches

Presenting Author: Ahmad Aljanazrah, Birzeit University, Palestine; **Co-Author:** Elaine Murtagh, University of Limerick, Ireland; **Co-Author:** Ghadeer Hamed, Birzeit University, Palestine; **Co-Author:** Aisling Walsh, University of Limerick, Ireland

Ongoing conflict and political unrest in Palestine has had a detrimental impact on education. While working in a challenging political and economic context, teachers often lack the capacity to create safe and supportive learning environments, and respond to the needs of their students. Funded by the Irish Research Council, this four-year project explored how gender-responsive and play-based pedagogies can be incorporated into teacher education programmes and

learning and teaching practices to enhance the educational experience of children in Palestine. The project aimed to: i) explore teacher educators' perceptions of gender-responsive and play-based approaches, ii) design a professional development programme to enhance capacity for implementing these pedagogies, and iii) examine the subsequent impact on teacher educators' and pre-service teachers' knowledge, attitudes and practice. 20 teacher educators and 17 pre-service teachers were recruited from teacher education programmes at four Palestinian universities. Data was collected through interviews, surveys, and observations. Teacher educators and pre-service teachers demonstrated enthusiasm and motivation for adopting these new approaches and they were successfully implemented in university courses (by teacher educators) and practicum (by pre-service teachers). Overall the project illustrates the value in investing in professional development of those involved in teacher education to enhance teaching and learning experiences.

The use of research texts for improving practice in design-based research project

Keywords: Initial Teacher Education (Pre-service), Pre-school Education / Kindergarten, Primary School Education, Project-based Learning

Presenting Author:Kati Mäkitalo, University of Oulu, Finland; **Co-Author:**Megumi Iwata, University of Oulu, Finland

Previous studies show a gap between theory and practice in the teaching profession. In this study, the aim was to improve research integrated professional practice with pre-service teachers. The course was a part of minor studies of pre- and primary education at the teacher education. Participants (n = 32) were from early childhood, primary and special education programs. During the course a design-based research approach was introduced, which laid the foundation for their project in an authentic context. Several tasks focused on reflecting on research texts and project planning. At the end of the course, the projects were introduced in a mini conference. Data, including assignments and project reports, were analyzed to explore how pre-service teachers use research texts to improve practice. The research results show that the research texts mainly offered concepts for professional practice. Efforts to integrate relevant research to inform and develop effective teaching and learning practice were less reported. Thus, pre-service teachers shared their experience of reading research texts during their studies and stated the importance of research, the use of research texts by pre-service teachers in the development of practice needs to be further improved.

Session G 3

27 November 2024 16:45 - 18:15

B011 (PXL NeXT Building B)

Present & Discuss

Higher education, Primary education

Exploring Epistemologies and Attitudes in Arts and STEM Education

Keywords: Authentic Learning, Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Initial Teacher Education (Pre-service), Instructional Design and Instructional Strategies, Motivation, Music & Arts Education, Professionalisation of Educators, STEM, Teaching Approaches

Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development

Chairperson: TOMONORI ICHINOSE, Japan

Primary teacher training for the Arts: teacher trainers' personal and practical epistemologies

Keywords: Beliefs and Conceptions of Teaching, Initial Teacher Education (Pre-service), Instructional Design and Instructional Strategies, Music & Arts Education

Presenting Author:Marcelle Moor, University of Teacher Education (HEP-BEJUNE), Switzerland, Switzerland; **Co-Author:**Ana-Vanêssa Lucena, University of Teacher Education (HEP-BEJUNE), Switzerland, Switzerland; **Co-Author:**François Joliat, HEP-BEJUNE, Switzerland

In the context of generalist primary teacher training for the Arts at the HEP-BEJUNE, Switzerland, analysis of teacher trainers' accounts of their teaching can help to identify personal and practical epistemologies. Professionalizing teacher training requires rethinking Arts didactics from a scientific perspective. We aim to better understand how teacher trainers design and teach Arts didactics to future primary school teachers. How do teacher trainers characterize their own teaching? What are their habits? What beliefs and values do they base their actions on? According to a methodological design using filmed lessons followed by self-confrontation interviews, Arts teacher trainers discuss and co-analyze one of their lessons. Interview transcripts are coded using a conceptual analysis table comprising four categories: action/regulation/evaluation, planning, habits, and beliefs. Initial results show that teacher trainers mobilize complex, long-term understandings of course content (or branch content for the entire qualification) and personal, experience-informed strategies to explain their teaching - rather than discussing the observed lessons in terms of isolated facts and actions. Further results are expected to help explain and understand teacher trainers' detailed considerations, accessing their implicit references and revealing how teacher trainers' personal and practical epistemologies can document the question of scientific perspective in Arts didactics teaching.

Spoilers, spanglers and spotters: attitudes towards engineering education

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Motivation, STEM

Presenting Author:Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland

Beliefs play an important role in the design of instruction. Together with subjective theories about the usefulness or value of a subject content, they become guiding for action. In this study, we ask what subjective beliefs exist about engineering as a subject matter content and how these beliefs relate to the goal of general engineering education. 687 people (engineering specialists, vocational educational training (VET) teachers in engineering-oriented occupations, engineering-oriented VET students, compulsory school teachers and pupils and students in (non-)engineering programs completed a survey. Analyses indicate that goals of engineering education can be separated into goals for engineering literacy and goals for motivation to engage with engineering content. Cluster analysis distinguishes three typologies to look at engineering a) engineering is not so useful = spoilers, b) engineering is very good for everyone = spanglers, and c) a general average attitude = spotters. The frequency of spotters decreases with the degree of engineering specialisation. Spoilers and spotters are mainly found in general education settings. The results indicate a subject-orientation bias toward more learning, neglecting the motivation to learn. These results are discussed in view of a biased pedagogy in engineering education.

Integrating Challenge-Based Learning Through a Course Redesign: A Team Teaching Aspect

Keywords: Authentic Learning, Professionalisation of Educators, STEM, Teaching Approaches

Presenting Author:Kerstin Helker, Eindhoven University of Technology, Netherlands; **Co-Author:**Jasmina Lazendic-Galloway, TU/e innovation Space, Eindhoven University of Technology, Netherlands; **Co-Author:**Isabelle Reymen, Eindhoven University of Technology, Netherlands; **Co-Author:**Miguel Bruns, Eindhoven University of Technology, Netherlands

This qualitative study investigates collaborative course development and the shift from individual to team teaching aspect through the implementation of Challenge-Based Learning (CBL). By following the redesign of three separate courses into a cohesive 'learning line' we gather insights from four university lecturers and an educational designer involved in the process. Initial findings suggest that adopting the CBL approach to course design encourages a collaborative teaching environment and enhances lecturers' pedagogical skills. This approach not only addresses the challenges of traditional teaching practices but also significantly contributes to the professional development of educators by promoting teamwork, shared learning and peer support. In this presentation, we will explore the challenges encountered in the collaborative design and discuss the benefits of the team teaching approach.

Session G 4

27 November 2024 16:45 - 18:15

Montessori (PXL NeXT Building D)

Present & Discuss

Higher education, Secondary education

Self-Regulated Learning in Higher and Secondary Education

Keywords: Cognitive Skills & Development, Collaborative Learning, Higher Education, Instructional Design and Instructional Strategies, Lifelong Learning, Practice-based Research (methodology), Professional Development, Self-regulation and Self-regulated Learning, Special Educational Needs

Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 11 - Practice-based Research Methodology

Chairperson: Zarina Charlesworth, Switzerland

How to develop Self-Regulated Learning in students: developing a tool for higher education teachers

Keywords: Higher Education, Lifelong Learning, Professional Development, Self-regulation and Self-regulated Learning

Presenting Author: Sabrina Govaerts, AP University of Applied Sciences and Arts Antwerp, Belgium; **Co-Author:** Elena Van den Broeck, AP University of Applied Sciences and Arts Antwerp, Belgium; **Co-Author:** Astrid Koelman, AP University of Applied Sciences and Arts, Belgium

HE educators often expect students to be self-regulated, but lack the knowledge and skills to effectively coach student groups [KA1] (Perry et al., 2008). However, they play a central role in creating a climate in which learners use their (meta)cognitive and affective learning strategies to achieve learning goals and evaluate their learning (Vrieling, 2014; Zimmerman, 2008). This project will develop an online toolbox that can be used in conjunction with the Learning strategies and study Motivation questionnaire (LEMO; Vanthournout et al., 2016). The central research question is: how do we develop a user-friendly and relevant toolbox for HE educators in order to develop self-regulated learning in their students? Methodologically, the project uses Educational Design Research (McKenney & Reeves, 2014) as a framework. It involves stakeholders (educators, student counselors) in the design process. Afterwards, a pilot will be carried out in the teaching practice of at least three HE educators. The preliminary results of the needs analysis show that educators need more support materials, especially for affective learning strategies. They prefer support materials that are flexible and usable in various contexts. They would like to share good practices with their colleagues and they emphasize that these materials should be tailored to HE.

Creating a Space for Dialogue to Assist Students with MLD in Developing Self-Regulation

Keywords: Cognitive Skills & Development, Collaborative Learning, Self-regulation and Self-regulated Learning, Special Educational Needs

Presenting Author: Arwa Alharthi, University of Jeddah, Saudi Arabia

This paper reports the findings from evidence-based research focused on assisting students with moderate learning difficulties (MLDs) in developing self-regulation using active learning strategies. It is an instructional technique that grants learners the ability to participate in learning and teaching activities, to take responsibility for their own learning and to connect concepts through analysis, synthesis and evaluation. The research aimed to provide a deep understanding of how creating a space for dialogue can assist students with MLDs in developing self-regulation and its relationship with learning strategies. The preliminary findings presented the benefits of using an active learning strategy to create a learning environment that supports learning metacognition skills and self-regulation for students with MLDs. This is still ongoing research; however, after each week, the integration among metacognition, self-regulation and the space for dialogue sheds light on the support system that has been developed for students with MLDs.

Student Perspectives on Thesis Circles in Higher Education

Keywords: Higher Education, Instructional Design and Instructional Strategies, Practice-based Research (methodology), Self-regulation and Self-regulated Learning

Presenting Author: Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands; **Co-Author:** Ya Ping Hsiao, Tilburg University, Netherlands; **Co-Author:** Inge Van Seggelen - Damen, TU Eindhoven, Netherlands; **Co-Author:** Kamakshi Rajagopal, Stories That Make Us, Belgium; **Co-Author:** Steven Verjans, UCLL, Belgium

The thesis is a crucial component of any higher education study program, but the guidance for this task can vary significantly between supervisors. Writing a thesis is a complex process that requires personalised guidance, and this becomes challenging due to the increasing number of students and the need for efficiency. One possible solution is to create thesis circles - where a small group of students collaborate on research related to the same topic or theme are guided by one or more supervisors (Rajagopal et al., 2024). These circles promote self- and co-regulation and can prevent feelings of isolation. In this study, we evaluate a typology including key design characteristics for thesis circles in multiple student focus groups from a student perspective to get a grip on their perceptions and experience, using the following research question: Which characteristics of thesis circles do students believe contribute to their effectiveness within different contexts? During the EAPRIL 2024 conference, the preliminary results of the study will be presented.

Session G 5

27 November 2024 16:45 - 18:15

B031 (PXL NeXT Building B)

Present & Discuss

Secondary education

Empowering Change through Co-Creation and Writing in Secondary Education

Keywords: Authentic Learning, Communities of Learners and/or Practice, Deep-level and Profound Learning, Language Education, Practice-based Research (methodology), Research Cooperation Frameworks, School Development, Secondary School Education, Social Interaction, Writing

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 07 - Research impact on school development, CLOUD 11 - Practice-based Research Methodology

Chairperson: Christy Tenback, RENNA, Netherlands

THE PROCESS OF GAINING POWER IN A CHANGE LABORATORY WITH ADOLESCENT STUDENTS IN A SCHOOL SETTING

Keywords: Authentic Learning, School Development, Secondary School Education, Social Interaction

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 investigates the power-generation process of adolescent students through initiatives and decisions. Fourteen eighth graders participated in a Change Laboratory intervention to create projects significant to them. The study focuses on a documentary project about bullying and acceptance, created by four students during the Change Laboratory intervention that took place in school over one academic year. The study employs an enriched version of Sannino's (2022) transformative agency by double stimulation (TADS) model as a framework for illustrating the process of gaining power through initiatives and decisions. Empirical analyses of students' initiatives, decisions and discursive manifestations of students' power serve as a foundation for a theoretical analysis of the process by which students gain power. The findings reveal the different roles that students' initiatives and decisions play in the process of gaining power. The study highlights the significance of search actions in constructing the second stimulus and the importance of students' multiple decisions for keeping the second stimulus alive. Overall, the expanded TADS-model provides a useful framework for describing and theorizing the process of students' power generation, thereby enriching our understanding of this process.

Writing didactics in balance. Integrating a form on focus approach into Flemish writing classes.

Keywords: Communities of Learners and/or Practice, Language Education, Practice-based Research (methodology), Writing

Presenting Author: Anne Decelle, UC Leuven-Limburg, Belgium; **Co-Author:** Martien Geerts, UCLL, Belgium; **Co-Author:** Nele Driesen, UCLL, Belgium; **Co-Author:** Kristien Coussemant, UCLL, Belgium; **Co-Author:** Hilde Vanbrabant, UCLL, Belgium

This project focuses on improving pupils' writing skills by integrating grammar into writing classes for children between 10 and 14. Our research questions are: What are the perceptions of Flemish teachers on didactics and on focus on form in writing classes? What are the most relevant topics in a focus on forms

approach in Flemish writing classes? What are effective didactic models for a focus on forms approach? We combine an online survey amongst teachers (n=262), semi-structured interviews with teachers (n=14), literature study and a corpus analysis of pupils' texts (n=200), with try-outs in 7 schools. Results indicate that, although poll tests demonstrate the need for a focus on form in writing classes and teachers have a positive attitude towards a grammar integrated approach, only few effective techniques of form focused instruction are embedded in writing classes. The online survey as well as the corpus analysis indicate that sentence formation seems the most relevant focus. By comparing teachers' perceptions with the results of corpus analysis and by adapting international didactic models to the needs of Flemish students, we contribute to educational practice as well as to the debate on the role of the teacher as an expert and a coach.

How to develop co-creation between researchers and teachers: A case study of strategy instruction

Keywords: Deep-level and Profound Learning, Practice-based Research (methodology), Research Cooperation Frameworks, Secondary School Education
Presenting Author:Nao Uchida, The University of Tokyo, Japan; **Co-Author:**Satomi Shiba, The University of Tokyo, Japan; **Co-Author:**Kaho Takiguchi, Shizuoka Prefectural Shizuoka Nishi High School, Japan

Co-creation between researchers and teachers is significant for both of theory and practice, but not much has been achieved yet in research on strategy instruction. In order to develop and sustain collaborative relationships of researchers and teachers, it is necessary to consider how to share theories and practices in a community and involve its members in co-creation. Therefore, this study aimed to identify the process of a newly assigned teacher and two researchers co-create a strategy instruction practice and investigated its effects on students using a case in Japanese high school. We revealed the gradual process in which (1) the newcomer teacher observed the prior practice, and (2) the researchers and the teacher formed a common ground and (3) collaboratively engaged in a cycle of assessment and instruction of the students' learning strategies. Through strategy instruction designed by co-creation, the post-survey and observation suggested that the students began to use the instructed strategy, but some difficulties remain in spontaneous use of it. This study proposed a process of co-creating between researchers and teachers that has not been well examined, and is a helpful example for future co-creation.

Session G 6

27 November 2024 16:45 - 18:15

Blackbox (PXL NeXT Building D)

Present & Discuss

Higher education, Workplace learning

Technology-Enhanced Learning: Tools, Training, and Teacher Perspectives

Keywords: Artificial Intelligence, Higher Education, Innovations in Education, Instructional Design and Instructional Strategies, Technology Enhanced Learning, Virtual Reality, Web-Based Learning, Workplace Learning

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: maritza gerritsen, Hogeschool Arnhem Nijmegen, Netherlands

Comparative Judgements as Learning Activities: a three-tool trial

Keywords: Higher Education, Innovations in Education, Instructional Design and Instructional Strategies, Technology Enhanced Learning

Presenting Author:Marie Hoffelink, University of Liège, Belgium; **Co-Author:**Pascal Detroz, University of Liège, Belgium; **Co-Author:**Dominique Verpoorten, University of Liège, Belgium

In the context of a specialised MA in Higher Education pedagogy, students took part in six Comparative Judgement (CJ) sessions, evaluating previous cohorts' work using three different software tools (RM Compare, Comproved and No More Marking). The purpose was twofold: (1) critically assess the different software usability in the context of CJ learning activities;(2) evaluate the students' reaction to the activities and different software, through an analysis of their participation, perception and performance. Results show that there is a significant potential in using CJ as learning activities. However, the software currently available have been designed with a focus on maximising assessment reliability and not CJ's potential as a learning tool. A few twists to some features currently available in CJ software that could offer a better learning experience to students are identified.

Combining group discussions with individual VR practice: An occupational safety training model

Keywords: Instructional Design and Instructional Strategies, Technology Enhanced Learning, Virtual Reality, Workplace Learning

Presenting Author:Anu Lehikko, University of Lapland, Finland

A training model was developed in design-based research to improve occupational safety training effectiveness by incorporating immersive virtual reality scenarios into training. The main research question was, 'How should facilitated group learning situations and individual immersive virtual reality training scenarios be designed and combined in a training model to support the trainers and learners in achieving safety training objectives in the sociocultural setting of their workplace?' Findings from thematic trainer interviews were used to contextualize the model. A mixed-methods approach was applied to study the pedagogical viability of the model and the effects of learner-IVR interactivity on the learners' IVR experiences and the learning outcomes. Data were collected during training interventions that were carried out in two work organizations. The results indicate that high learner-IVR interactivity supports safety learning outcomes and training transfer; however, awareness of the sociocultural factors in the training context is recommended throughout safety training design, implementation and outcome evaluation. The results were applied in the iteration of the IVR safety training model. They will also advance the study of IVR learning for mature learners and professional development purposes. The model can be adapted to suit other training topics.

Open discussion on teachers' opinions towards GPT-4o in Higher Education

Keywords: Artificial Intelligence, Higher Education, Technology Enhanced Learning, Web-Based Learning

Presenting Author:Ning Ding, Hanze University of Applied Sciences, Netherlands

On May 13, 2024, Open AI has announced GPT-4o which is promoted as their "new flagship model that can reason across audio, vision, and text in real time". Against this background, we are interested to explore how education practitioners reflect on the impact of GPT on their teaching practices. Against this background, we initiate this research trying to explore the opinions of education professionals regarding how GPT-4o may impact the higher education. This on-going research includes more than 12 interviews with education practitioners. The expected outcome is a framework for universities to understand how to integrate GPT-4o effectively in curriculum development.

Session G 7

27 November 2024 16:45 - 18:15

Erlich (PXL NeXT Building D)

Present & Discuss

Higher education

Empowering Pre-Service Teachers: Feedback, Facilitation, and Digital Competence

Keywords: Assessment and evaluation, Higher Education, Initial Teacher Education (Pre-service), Practice-based Research (methodology), Professionalisation of Educators, Qualitative and Quantitative Approaches to Learning and Instruction, Technology Enhanced Learning, Virtual Reality

Interest group: CLOUD 01 - Teacher education

Chairperson: Belinda Ommering, Utrecht University of Applied Sciences, Netherlands

Feedback conditions in Virtual Reality environments for pre-service teacher training

Keywords: Assessment and evaluation, Higher Education, Initial Teacher Education (Pre-service), Virtual Reality

Presenting Author:Kyle van den Langenberg, HAN University Nijmegen, Netherlands; **Co-Author:**Marjoleine Dobbelaer, HAN University of Applied Sciences, Netherlands; **Co-Author:**Deby Weerlink, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Tamara Schilt-Mol, Hogeschool van Arnhem en Nijmegen, Netherlands; **Co-Author:**Kelly Beekman, Fontys University of Applied Science, Netherlands; **Co-Author:**Jorik Arts, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Andrea Oudkerk Pool, Fontys University of Applied Science, Netherlands; **Co-Author:**Edwin Buijs, HAN University of Applied Sciences, Netherlands

This study investigates the effects of feedback types (teacher, peer, and pre-programmed) in virtual reality (VR) environments for teacher training. VR offers unique advantages by enabling individualized learning, independent practice, and preparation for complex professional contexts. The study involved 60 students who experienced three scenarios with different types of feedback. The results reveal differences in students' learning experiences under various feedback conditions and examine how feedback givers and receivers perceive the process. The research addresses a gap in understanding the contribution of different forms of feedback within VR to student-teacher learning. The discussion highlights the potential value of VR in pre-service teacher education, contributing to knowledge about innovative VR learning environments and optimal feedback for enhanced learning experiences.

Challenges and needs of Front Professional as facilitators for promoting epistemic agency

Keywords: Higher Education, Initial Teacher Education (Pre-service), Practice-based Research (methodology), Professionalisation of Educators

Presenting Author:Ellen de Kwant, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Belinda Ommerring, Utrecht University of Applied Sciences, Netherlands; **Co-Author:**Lisette Munneke, Utrecht University of Applied Sciences, Netherlands

Teaching is a complex task and epistemic agency (i.e., an active stance towards knowledge development, for which research competencies are needed) is important for quality decision making. It is known that a task-centred curriculum design facilitates student learning, but introducing research competencies in an integrated manner to develop epistemic agency is challenging for institutes, teachers and students. To facilitate the implementation process, Marnix Academie introduced so-called 'Front Professionals' (i.e., ambassadors) of epistemic agency. Parallel to this intervention, we studied: (1) what challenges Front Professionals are facing, and (2) what support needs do they have? Focus group sessions were conducted with Front Professionals and a grounded theory approach was used to analyse the data. Our results show that Front Professionals' most important challenges were: lack of time to collaborate with colleagues and prioritizing within their own working schedule, balancing time-on task (formal content vs. research competencies) during lessons, ambiguity of assessment criteria and unclarity how to support teacher-colleagues. Front Professionals needs for support are time to collaborate with colleagues and other Front Professionals to work out didactic examples, solving assessment issues and learning how to further support their teacher-colleagues. Identified results will guide the next steps to strengthen Front Professionals' role.

Web 2.0 Tools in Teacher Education: Improving Digital Competence

Keywords: Higher Education, Initial Teacher Education (Pre-service), Qualitative and Quantitative Approaches to Learning and Instruction, Technology Enhanced Learning

Presenting Author:Tuğba Altan, Kahramanmaraş Sutcu Imam University, Türkiye; **Co-Author:**Selcan Kilis, Giresun University, Faculty of Education, Curriculum and Instruction, Türkiye

This study examined preservice teachers' experience with different Web 2.0 tools in creating learning materials to improve their digital competency in the scope of the course Instructional Technology. In this course, they learned how to create digital learning materials using the tools and also how to use these materials during their teaching. A convergent parallel design from mixed-method research was applied. The sample includes 302 preservice teachers selected with the convenience sampling technique. The participants had a seven-week implementation and filled out surveys about their experiences with each tool they used for each week. The study was conducted in two universities in the same manner. The data were collected online through Google Forms in the fall and spring semesters of the 2021-2022 academic year. The data were analyzed using descriptive statistics and qualitative content analysis. The findings indicated that preservice teachers generally found the Web 2.0 tools useful and effective in creating learning materials, although some of them stated the difficulty they encountered, the complexity of the interface, language, and certain usability issues. On the contrary, they further indicated their intention to use the tools in the future.

Session G 8

27 November 2024 16:45 - 18:15

EA 138 (PXL NeXT Building A)

Present & Discuss

Early childhood education, Higher education

Professional Development in Higher & Early Childhood Education

Keywords: Beliefs and Conceptions of Teaching, Curricula, Early Childhood Education, Initial Teacher Education (Pre-service), Innovations in Education, Language Education, Professional Development, Professional identity, STEM

Interest group: CLOUD 02 - Educators' professional development, CLOUD 11 - Practice-based Research Methodology

Chairperson: Sterre Hoenderop, HZ University of Applied Sciences, Netherlands

The professional identity of higher education teachers in the context of educational innovation

Keywords: Beliefs and Conceptions of Teaching, Innovations in Education, Professional Development, Professional identity

Presenting Author:Kariene Mittendorff, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Natalie de Beer Liebrechts, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Herma Jonker, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Henk Spaan, Windesheim University of Applied Sciences, Netherlands

Many higher education institutions are renewing their education. For instance by focusing on teaching students generic skills such as (interdisciplinary) collaboration, reflection, self-direction or creativity. Teachers are given new roles in these forms of education, such as that of coach. This research focuses on mapping the professional identity of teachers from technical study programs in higher education within the context of innovations, and what challenges they experience. By means of in-depth interviews with teachers (n=19), we gained insight into what motivates them, what challenges they encounter and how this is dealt with in their educational team. We gained insight into their experiences, individually but also regarding the teacher team. The results were discussed in focus groups and led to directions for a follow-up study. In this follow-up project, three themes that derived from this research are put into practice through action-based research : a) the coaching role of teachers (balancing subject matter and coaching), b) professional identity of teachers (and the relation to team tasks), c) professional identity of team leaders and facilitating team development. The long-term goal of this larger project is to guarantee the quality of higher technical education and to retain teachers for it.

What can we learn from successful language interventions in ECE? A common elements analysis

Keywords: Curricula, Early Childhood Education, Language Education, Professional Development

Presenting Author:Helena Taelman, Odisee, Belgium; **Co-Author:**Sven Sierens, Universiteit Gent, Belgium; **Co-Author:**Kathleen Bodvin, KULeuven/Faculty of Psychology and Educational Sciences, Belgium; **Co-Author:**Jantine Spilt, KU Leuven, Belgium; **Co-Author:**Bénédicte Vanblaere, Arteveldehogeschool, Belgium; **Co-Author:**Pieter Verachert, Thomas More, Belgium

What is the most effective approach to stimulate language development in Early Childhood Education (ECE)? Which guidelines can we derive from the scientific literature about proven-effective language interventions? ECE professionals are not only interested in the outcomes of language interventions, they wish detailed information of the intervention approaches employed, in order to guide their own quality improvement efforts. To this end, we will present a common elements analysis of nine recent successful language interventions in ECE worldwide that were identified after a systematic search and quality assessment. We will discuss common elements related to general teaching strategies, besides common elements targeting the promotion of oral language, vocabulary, narrative

skills, and early literacy, and common elements related to implementation quality. Several common elements support implicit language learning (such as implementing long themes that last for several weeks, organizing playful activities with room for child initiative, using conversational strategies, emphasizing conversations in play corners), while others induce explicit language learning (setting goals, modelling, scaffolding). Successful interventions offer goal-directed professionalization and support ECE professionals with high quality curriculum materials such as a scope and sequence, soft-scripted activity plans, and monitoring tools.

Unlocking Spatial Teaching: Pre-Service Teachers' Peer Micro-Teaching Lesson Study

Keywords: Early Childhood Education, Initial Teacher Education (Pre-service), Professional Development, STEM

Presenting Author:Rohit Mishra, Delft University of Technology, Netherlands

Spatial thinking is crucial for child development and future success in STEM fields, yet it often lacks sufficient attention from teachers due to inadequate spatial Pedagogical Content Knowledge (PCK) and its absence in curricula. This study explores how Peer Micro-teaching-based Lesson Study (PMLS) enables pre-service teachers to develop spatially challenging lesson plans, specifically focusing on spatial language and gestures through guided hands-on tasks inspired by children's storybooks. Three pre-service teachers from a Dutch international teacher training institute participated in five weeks of PMLS sessions, involving lesson creation, micro-teaching, peer feedback, and lesson plan adaptation. Analysis of video and audio recordings from micro-teaching sessions, peer-feedback discussions, and participants' reflections reveals that teachers learned the importance of embodiment for teaching dynamic spatial words and realized the value of creating a "blueprint" (sketching) before designing activities for young learners. The micro-teaching aspect provided a secure environment for practicing spatialized lesson plans and adapting them to support pupils with varying spatial abilities. This research demonstrates the effectiveness of PMLS in enhancing pre-service teachers' spatial thinking pedagogy in early childhood classrooms.

Session G 9

27 November 2024 16:45 - 18:15

EA 139 (PXL NeXT Building A)

Present & Discuss

Early childhood education, Primary education, Secondary education

Technology for Social-Emotional Learning and Collaboration in Education

Keywords: Artificial Intelligence, Bilingual Education, Collaborative Learning, Emotions and Emotional Development, Inclusivity, Pre-school Education / Kindergarten, Social Interaction, Special Educational Needs, Technology Enhanced Learning

Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Haili Hughes, IRIS Connect, United Kingdom

The potential of technology to support social-emotional learning in special needs education

Keywords: Emotions and Emotional Development, Social Interaction, Special Educational Needs, Technology Enhanced Learning

Presenting Author:Diana van Veen, Hogeschool Inholland / University of Applied Sciences, Netherlands; **Co-Author:**NR Bos, Inholland University of Applied Sciences, Netherlands

This explorative study focuses on the current use of educational technology to support social-emotional learning (SEL) of students within a Special Needs Education institute (SNE) to identify the potential to upscale implementation. The central research question in this study is: Which existing technologies that enhance SEL for students in the SNE are potentially viable for upscaling? To address this research question, we utilized a qualitative survey methodology, conducting focus group discussions with special needs staff members (N=19). The existing use of technology mainly focuses on supporting self-management, self-awareness, and responsible decision making by provide insight into social situations and practicing social skills. The technologies educators reported utilizing include educational software, SEL software, gaming software, and occasionally, robotics, VR, and serious gaming. Both the existing use of technology to support SEL and understanding of this technology appears to be limited to individuals and small groups of teachers. There is no apparent knowledge of evident learning effects. Expanding the knowledge through research of the learning effects related to the current use of technology supporting SEL will be beneficiary for upscaling. Teachers' self-efficacy and skills in using technology needs specific attention during this process.

Computational thinking in collaborative problem solving to program an AI-based robotic arm

Keywords: Artificial Intelligence, Collaborative Learning, Social Interaction, Technology Enhanced Learning

Presenting Author:Megumi Iwata, University of Oulu, Finland; **Co-Author:**Kateryna Zabolotna, University of Oulu, Finland, Finland; **Co-Author:**Kati Mäkitalo, University of Oulu, Finland; **Co-Author:**Jari Laru, University of Oulu, Finland

We present a case study of the middle school students' collaborative problem solving activity to program an AI-based robotic arm. The aim of this study is to explore how individual students' computational thinking emerges in collaborative discourse. We use epistemic network analysis, a novel technique for quantitative ethnography, to identify how the computational thinking processes and the social dimensions of collaborative problem solving co-occur in the discourse. We also compare the co-occurrence patterns between high- and low-performance groups. In the results we illustrate the epistemic network of the groups. The results show that the connections between the computational thinking processes and the social dimensions of collaborative problem solving are stronger in the high-performance groups. This indicates that computational thinking is shared and discussed among the group members more frequently in the high-performance group. As a conclusion, we suggest pedagogical and technical implications for innovative AI-based robot activities from the perspectives of computational problem solving and collaboration.

A multilingual storybook reading robot for young children

Keywords: Bilingual Education, Inclusivity, Pre-school Education / Kindergarten, Technology Enhanced Learning

Presenting Author:Rianne van den Berghe, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

This project was aimed at developing and evaluating a social robot that could read storybooks to multilingual children. Crucially, it read storybooks in multilingual children's home language in a school context, to allow multilingual children to use their home languages within the school. A study was carried out in which 60 kindergartners either 1) were read the story by the robot in their home language by the robot; 2) were read the story by the robot in Dutch; or 3) did not participate in a storybook session with the robot. All children were subsequently read a story in Dutch (the school language) by the experimenter. Target word knowledge, story comprehension and engagement were measured. Preliminary analyses showed no differences on target word knowledge and story comprehension between the three conditions. Engagement measures are still being analyzed. The study has brought to light several technological developments that need to be made in order for technology to fulfill its potential to support multilingual children in using their home languages within a school context.

Session G 10

27 November 2024 16:45 - 18:15

Piot (PXL NeXT Building D)

Present & Discuss

Secondary education

Facilitating Dialogues on Climate Science and Democratic Values in Secondary Education

Keywords: 21st Century Learning, Assessment and evaluation, Continuing Professional Development in Teachers, Knowledge Building and Development, Philosophy of Education, Secondary School Education, Self-efficacy, Sustainability, Teaching Approaches

Interest group: CLOUD 02 - Educators' professional development, CLOUD 10 - Education for Sustainability

Chairperson: Jacob Nouta, Hogeschool Utrecht, Netherlands

Dialogical Reflection on the Nature of Climate Science: The Teacher as Facilitator

Keywords: 21st Century Learning, Knowledge Building and Development, Sustainability, Teaching Approaches

Presenting Author: Leen Bisschop, Odisee University College, Belgium; **Co-Author:** Laura Van den Broeck, Odisee University College, Belgium; **Co-Author:** Christel BALCK, Odisee University College, Belgium; **Co-Author:** Jelle De Schrijver, Odisee university college & Antwerp University & Ghent University, Belgium

How can learners develop a critical attitude towards climate-related misinformation? Helping students to reflect about science in general and upon the construction of scientific knowledge about climate in particular is promising. After all, a focus on the epistemological aspects of climate science can stimulate students' critical thinking and (informed) decision-making skills. One of the ways to strengthen student reflection about science is by turning (student-)teachers into dialogue facilitators. The aim of this study is to examine the opportunities and obstacles encountered by (student-) teachers and to examine their experiences when engaging in the role of facilitator for reflective dialogues about (climate) science. Through Educational Design Research (EDR), we develop, implement, and evaluate a dialogical teaching method in several research cycles, together with a Professional Learning Community (PLC). This process resulted in the development of a guide with class activities for implementing the dialogical teaching method. Interviews with (student-) teachers demonstrate that this approach is both considered relevant and challenging: teachers sometimes feel uncertain about how to support reflective dialogues and find it hard to balance their role of facilitator with their role of expert. Specific dialogue techniques help them to navigate knowledge frameworks in the context of climate science education.

Embracing Controversy in the classroom. Facilitating dialogue towards multiperspectivity

Keywords: 21st Century Learning, Continuing Professional Development in Teachers, Philosophy of Education, Self-efficacy

Presenting Author: Ama Amitai, Karel de Grote Hogeschool and Odisee hogeschool, Belgium; **Presenting Author:** Laura Van den Broeck, Odisee University College, Belgium; **Co-Author:** Eef Cornelissen, Odisee Hogeschool, Belgium

The classroom is a place where different worldviews and opinions meet. Teachers struggle with tensions, arising from students' conflicting values on controversial topics. A transformative approach, which encourages open sharing of perspectives and fosters critical exploration, stands in contrast with the more dominant adaptation approach, in which teachers aim that students adopt their views. One way to install a transformative approach is a philosophical dialogue, in which the teacher acts as the conversation facilitator in which the attention shifts from moral judgements to in-depth questioning. This study examines how philosophical dialogues affect students' multiperspectivity and improve teachers' self-efficacy in handling controversial issues. Through Education Design Research, we developed a philosophical dialogue method, focused on critical reflection and multiperspectivity, which is tested by teachers. Data was collected through 78 questionnaires and 10 interviews of in-service teachers as well as field notes of two class groups with pre-service teachers. Preliminary findings indicate that philosophical dialogue exercises enhance students' multiperspectivity. Short, structured dialogue exercises can increase teacher self-efficacy, although some teachers need more professionalisation. In sum, dialogue has the opportunity to turn sensitive discussions into valuable learning experiences, enhancing students' citizenship competences.

Nurturing students' engagement, - towards democratic values and attitudes?

Keywords: 21st Century Learning, Assessment and evaluation, Continuing Professional Development in Teachers, Secondary School Education

Presenting Author: Ama Amitai, Karel de Grote Hogeschool and Odisee hogeschool, Belgium; **Presenting Author:** Niels Van Hoof, Karel de Grote Hogeschool, Belgium

Formative assessment has a significant impact on students' motivation, how they navigate and engage through the multiple requirements they meet in their school life. This, in turn, influences how they personally engage in various topics and might impact their values and attitudes. Fostering students' democratic attitudes and values is at the core of citizenship education. However, teachers are often unsure about designing learning and assessment processes to nurture and challenge students' democratic values and attitudes. Particularly because they are afraid to assess their students' personality, fearing bias and lack of transparency. This study, based on case studies from Portuguese, Czech and Norwegian teachers, explores teaching approaches and formative assessment in civic attitudes and values. Preliminary findings show that teachers play a crucial role creating places of transit, although transformation of values and attitudes cannot be guaranteed. Second, teachers take on different roles in order to stimulate dialogue about attitudes and values. Third, teachers must take into account that schools are never neutral environments but represent values of their own. Fourth, our study indicates that attitudes are assessed more explicitly, while assessing values is implicit in a formative manner yet teachers find this most challenging.

Session G 11

27 November 2024 16:45 - 18:15

Pacioli (PXL NeXT Building D)

Meet-up

Meet-up session

Keywords: 21st Century Learning, Artificial Intelligence, Assessment and evaluation, At-risk Students

Interest group:

This session will include two meet-ups. Please note that there won't be any formal presentations during these gatherings. Instead, the sessions are designed to facilitate informal conversations with colleagues about potential collaborations on the proposed themes. The two themes are:

1. *Networking on daily and formative learning assessment: dialogues and contributions from national cultures in addressing objectives, indicators, methodologies and recording and monitoring instruments by* 2. *Methodology of Practice-Based Research (linked to Cloud 11)*

Meet-up session

Presenting Author: Robson Felix, Federal University of Uberlandia, Brazil; **Presenting Author:** Lisette Munneke, Utrecht University of Applied Sciences, Netherlands; **Co-Author:** Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands

This session will include two meet-ups. Please note that there won't be any formal presentations during these gatherings. Instead, the sessions are designed to facilitate informal conversations with colleagues about potential collaborations on the proposed themes. The two themes are:

1. *Networking on daily and formative learning assessment: dialogues and contributions from national cultures in addressing objectives, indicators, methodologies and recording and monitoring instruments by* 2. *Methodology of Practice-Based Research (linked to Cloud 11)*

Session G 12

27 November 2024 16:45 - 18:15

Corbu (PXL NeXT Building D)

Workshop

Workplace learning

Using art to develop your own work-related questions: a workshop that enhances creative learning

Keywords: Cooperative Learning, Creativity, Organisational Learning, Workplace Learning

Interest group: CLOUD 14 - The incubator cloud for organisational learning ideas

The aim of this workshop is to let the participants experience how Art can be used in gaining new perspectives about their own innovation questions. Starting from a dialogue about art, participants will explore their own and the other's perspective. Here, the artworks serve as boundary objects (Bakker and Akkerman,

2016) to enable mutual learning. The workshop's design is based on the methods of Visual Thinking (Yenawine, 2013) and Art Based Learning (Lutters, 2020), and for that purpose several real artworks are brought along. The last part of the workshop will be a group reflection on the outcomes, and on the mechanisms that the participants have experienced during the first part of the workshop.

Using art to develop your own work-related questions: a workshop that enhances creative learning

Presenting Author: Annebel Hofhuis, Montessori College Arnhem/ Kessels & Smit, Netherlands; **Co-Author:** Suzanne Verdonschot, Kessels & Smit, The Learning Company, Netherlands

The aim of this workshop is to let the participants experience how Art can be used in gaining new perspectives about their own innovation questions. Starting from a dialogue about art, participants will explore their own and the other's perspective. Here, the artworks serve as boundary objects (Bakker and Akkerman, 2016) to enable mutual learning. The workshop's design is based on the methods of Visual Thinking (Yenawine, 2013) and Art Based Learning (Lutters, 2020), and for that purpose several real artworks are brought along. The last part of the workshop will be a group reflection on the outcomes, and on the mechanisms that the participants have experienced during the first part of the workshop.

Session G 13

27 November 2024 16:45 - 18:15

B012 (PXL NeXT Building B)

Workshop

Higher education

Discovering the relation between innovative capacity of professionals, teams and organizations

Keywords: Innovations in Education, Organisational Learning, Professional Development, School Development

Interest group: CLOUD 12 - Leadership in Education

Educational innovation is crucial for addressing the evolving needs of society. The landscape of education is continuously changing due to technological advancements, cultural shifts, and environmental concerns. From scoping reviews and expert panels we concluded that innovative capacity in education on three different levels – educational professionals, teams, and organizations - is essential for addressing these complex challenges. Despite the recognition of the pivotal significance of innovative capacity at these levels, lacuna persists in our comprehension of their interrelationships. By elucidating these interrelationships, scholars and practitioners can glean insights into the mechanisms underpinning educational innovation, laying the groundwork for initiatives aimed at nurturing a resilient educational landscape. The aim of this workshop is to examine the interrelationships among the elements of innovative capacity across three distinct levels: individual educational professionals, collaborative educational teams, and educational organizations. Employing the hexagonal thinking methodology, participants will engage in a systematic exploration of the interconnections shaping innovative capacity within these spheres. Upon the conclusion of the workshop, participants will be equipped with the analytical tools necessary to assess the state of innovative capacity within their educational contexts. Furthermore, the workshop will serve as a catalyst for identifying avenues for future research.

Discovering the relation between innovative capacity of professionals, teams and organizations

Presenting Author: Remco Coppoolse, Utrecht University of applied science, Netherlands; **Co-Author:** Harry Rorije, Hogeschool Utrecht, Netherlands; **Co-Author:** Idwer Doosje, Universiteit Utrecht / Hogeschool Utrecht, Netherlands

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Session G 14

27 November 2024 16:45 - 18:15

B032 (PXL NeXT Building B)

Workshop

Higher education

From Pixels to Pedagogy: Game-Based Learning with Graveler

Keywords: 21st Century Learning, Blended Learning, Collaborative Learning, Game-based Learning / Gamification

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Join us for an immersive journey into the world of game-based learning at our workshop, "Exploring Game-Based Learning with Graveler." In recent years, digital learning games have revolutionised education, offering new avenues for engaging and effective learning experiences. Follow in the footsteps of research pioneers such as Prensky, Gee, Alaswad, Nadolny, and Sanchez, to discover the principles and practical implementation of game-based learning in higher education. Participants will explore Graveler, an innovative, Open Source published, web-based e-learning tool designed for the seamless integration of game-based learning. With Graveler, educators can create immersive virtual environments with interactive elements that enhance student engagement through role-playing game mechanics. No previous programming or gaming experience is required - just bring an open mind and a passion for innovation. The workshop is divided into three parts: an introduction to the principles of game-based learning and their application in higher education, a hands-on exploration of examples realised in Graveler which were used in higher education teaching, and a practical session in which participants design and create their own teaching modules. The workshop seeks to enable participants to utilise the potential of game-based learning to transform their teaching practice.. Join us on this journey of discovery and innovation!

From Pixels to Pedagogy: Game-Based Learning with Graveler

Presenting Author: Ann-Kathrin Steiner, University Tuebingen, Germany

Join us for an immersive journey into the world of game-based learning at our workshop, "Exploring Game-Based Learning with Graveler." In recent years, digital learning games have revolutionised education, offering new avenues for engaging and effective learning experiences. Follow in the footsteps of research pioneers such as Prensky, Gee, Alaswad, Nadolny, and Sanchez, to discover the principles and practical implementation of game-based learning in higher education. Participants will explore Graveler, an innovative, Open Source published, web-based e-learning tool designed for the seamless integration of game-based learning. With Graveler, educators can create immersive virtual environments with interactive elements that enhance student engagement through role-playing game mechanics. No previous programming or gaming experience is required - just bring an open mind and a passion for innovation. The workshop is divided into three parts: an introduction to the principles of game-based learning and their application in higher education, a hands-on exploration of examples realised in Graveler which were used in higher education teaching, and a practical session in which participants design and create their own teaching modules. The workshop seeks to enable participants to utilise the potential of game-based learning to transform their teaching practice.. Join us on this journey of discovery and innovation!

Session G 15

27 November 2024 16:45 - 18:15

B014 (PXL NeXT Building B)

Present & Discuss

Secondary education

Motivation and Critical Thinking in Secondary Education

Keywords: At-risk Students, Creativity, Distance Education, History Education, Inquiry Learning, Motivation, Secondary School Education, Self-regulation and Self-regulated Learning, Teaching Approaches

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being

Chairperson: Jeroen Rozendaal, University of Applied Science Rotterdam Hogeschool Rotterdam, Netherlands

Patterns of motivation: a study of secondary schools in the Zeeland and Northern Ireland

Keywords: Motivation, Secondary School Education, Self-regulation and Self-regulated Learning, Teaching Approaches

Presenting Author: Petra Poelmans, Scalda, Netherlands; **Co-Author:** Daniel Muijs, Queen's University Belfast, United Kingdom

Following the covid pandemic, many teachers and school leaders have been reporting growing issues with student motivation, while research likewise point to growing issues around motivation to study, as well as pupil mental health overall (e.g. Holt-White et al, 2023; Prince's Trust, 2023). While we have evidence of a general decrease in student motivation post-covid, we have to date little evidence on whether the pattern of motivational development has changed, or what teacher attitudes and behaviours are related to attainment in the changed post-pandemic landscape. It is also not clear to what extent those patterns may vary across different (national) contexts. In this comparative study we will therefore look at the level and patterns of motivation among post-pandemic students in schools in the Netherlands (Zeeland) and Northern Ireland, and their relationship with teacher attitudes. This comparative study used a mixed methods design, combining a quantitative student survey with follow-up interviews of students.

A Prelude for tailor-made education. Motivating school refusers for learning.

Keywords: At-risk Students, Distance Education, Motivation, Secondary School Education

Presenting Author: Petra Poelmans, Scalda, Netherlands; **Co-Author:** Ineke Nelissen- Lisseveld, Hogeschool Rotterdam, Rotterdam University, Netherlands

In the Netherlands, we have compulsory education for young people up to 18, or up to 16 if they have already obtained a basic qualification at that age. Despite this rule, there are young people of qualification or school age who are absent for more than three months. The number of these so-called home-sitters is increasing. Dutch media estimate the number of 14.000 students who meet the definition of school refusers (NRC, 2024). Research literature and policy documents are often created by talking about these students and not with them. Within the research that is presented, the perspective of the school refusers is central. Based on semi-structured interviews with students and their parents/guardians, logs and interviews with teachers-coaches, success factors (like for example a non-school environment and digital meetings) and hindering factors (working with peers and tight schedule) were defined. These factors are applied in the development of the OpMaat. A place where school refusers can take the step to learning again. Within the OpMaat, a safe and powerful pedagogical learning climate is created by, among other things, paying attention to competence, autonomy and (especially) connectedness, three basic needs for growth (Vansteenkisten et al (2021); Poelmans, 2023).

Can time run backwards? Philosophical dialogue to help history teachers elicit critical thinking.

Keywords: Creativity, History Education, Inquiry Learning, Secondary School Education

Presenting Author: Jelle De Schrijver, Odisee university college & Antwerp University & Ghent University, Belgium; **Co-Author:** Laura Van den Broeck, Odisee University College, Belgium

How can student-teachers learn to stimulate critical reflection about history, memory and time in a history class? Teaching history not only entails discussing historical questions, it also involves exploring theoretical questions of a philosophical nature: questions about the epistemology, ontology, ethics of history. The use of 'philosophical dialogues' as a teaching method helps philosophy teachers to stimulate critical thinking about philosophical topics. In this study we describe how this approach from the didactics of philosophy was implemented in history education and which challenges and opportunities were met. Following an educational design research methodology, a teaching method was developed and introduced in four groups of Flemish teacher training programs. Design criteria were formulated, entailing the use of philosophical questions, the need to provide concrete thinking exercises and the importance of taking a Socratic stance (taking a non-judgmental position). Overall, student-teachers and teacher trainers are enthusiastic about the concrete learning material helping them address theoretical questions in history. Yet, learning to take a Socratic stance seemed more challenging as student-teachers find it challenging not to provide the answers to the questions they raise. We will discuss implications for teacher education in this presentation.

Session H 1

28 November 2024 09:00 - 10:30

B012 (PXL NeXT Building B)

Workshop

Secondary education

The thing that keeps me going. How to promote early career teachers' resilience.

Keywords: Diversity, Internships, Professional identity, Teacher Thinking

Interest group: CLOUD 04 - Improving learning and well-being

This workshop addresses how Fontys University of Applied Sciences gives guidance to early career teachers (ECTs) at higher education and secondary colleges. This workshop aims to: 1. highlight the importance of teacher educator and ECT feedback literacy in developing productive feedback partnerships; 2. explain why resilience matters for teachers and how it can be facilitated; 3. enable you to consider the supports you have for facilitating resilience. Introduction: As a teacher training college, we build on the ECTs' teaching experiences to become fully qualified teachers. We try to personalise the trajectory and allow the ECTs to learn while they continue to work in their current roles. They get support from a pathway tutor, a school-based mentor and a teacher educator. Activities: Think Pair Share. What do you currently do in your own practice to promote ECTs' resilience? How can you mobilise personal and contextual resources to build capacity for resilience? What are specific strategies that you employ when ECTs experience an adverse situation? What do you see as the features of the feedback 'culture' in which you work? Round-up: Participants share their ideas for activities and their opinions on feedback strategies and their take-aways.

The thing that keeps me going. How to promote early career teachers' resilience.

Presenting Author: Barbara Roosken, Fontys University of Applied Sciences, Netherlands

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take-aways.

Session H 2

28 November 2024 09:00 - 10:30
Pierre Cox (PXL NeXT Building D)
EAPRIL Spotlight Session
Primary education

Put the spotlight back on QUALITY language: it's not rocket science!

Keywords: Diversity, Language Education, Multiculturalism in Education, Parental Involvement in Learning
Interest group: CLOUD 02 - Educators' professional development

Several international studies show declining language results among pupils. An explanation is often sought in the increasing (linguistic) diversity of classes. Or could it be that teachers sometimes provide too little linguistic input and challenge thinking skills too less? In this session, we start from the research 'It's not rocket science' of PXL Research. In this project we build up language-rich opportunities in a three-step: from MORE - linguistic reading together with parents, through MORE - linguistic talking bridged to the home environment, to MORE - linguistic interaction during everyday situations both in class and at home. During the session, we regularly transfer to other linguistic projects at PXL Research, to conclude with a list of simple but powerful principles for quality language throughout every teaching moment.

Put the spotlight back on QUALITY language: it's not rocket science!

Presenting Author:Saar Steverlinck, Hogeschool PXL, Belgium; **Presenting Author:**Hanne Rosius, Hogeschool PXL, Belgium

Several international studies show declining language results among pupils. An explanation is often sought in the increasing (linguistic) diversity of classes. Or could it be that teachers sometimes provide too little linguistic input and challenge thinking skills too less? In this session, we start from the research 'It's not rocket science' of PXL Research. In this project we build up language-rich opportunities in a three-step: from MORE - linguistic reading together with parents, through MORE - linguistic talking bridged to the home environment, to MORE - linguistic interaction during everyday situations both in class and at home. During the session, we regularly transfer to other linguistic projects at PXL Research, to conclude with a list of simple but powerful principles for quality language throughout every teaching moment.

Session H 3

28 November 2024 09:00 - 10:30
B031 (PXL NeXT Building B)
Workshop
Lifelong learning

Navigating dilemmas in designing digital open badges for sustainability teachers

Keywords: Competence-based Education, Continuing Professional Development in Teachers, Instructional Design and Instructional Strategies, Sustainability
Interest group: CLOUD 10 - Education for Sustainability

This workshop addresses the development of teacher competencies for Education for Sustainable Development (ESD) and builds upon the learning experiences in the first of two periods of the Erasmus+ Teacher Academy EduSTA. By embracing different countries, educational cultures, contexts and needs, EduSTA aimed to cocreate a generic competence-based teacher role description, based on the current teacher competencies frameworks for ESD (Amettler, 2024), underpinning a prototype for micro-credentials, digital open badge-driven learning pathways and accompanying learning modules for teachers. The aim of the workshop is two-fold: 1. Participants are actively involved in furthering the discussion on bringing sustainability education to life by negotiating the tensions and dilemmas in translating sustainability education concepts to teacher development practise. 2. Workshop hosts triangulate the tensions and dilemmas identified in the EduSTA badge-design process with the perspectives of educational stakeholders beyond the consortium. In a learning by doing process, participants in this workshop are presented with a set of educational design principles that foster ESD. In mixed groups they are invited to negotiate possibilities to make room for transformative learning, assessment as learning and communal and authentic learning while building upon the developed EduSTA badge constellation prototype, its competence objectives and criteria.

Navigating dilemmas in designing digital open badges for sustainability teachers

Presenting Author:Lauren Verheijen, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Elles Kazemier, Hanze University of Applied Sciences, Groningen, Netherlands; **Co-Author:**Corine Seelen, Hanze University of Applied Sciences, Groningen, Netherlands; **Co-Author:**Eveliina Asikainen, Tampere University of Applied Sciences, Finland

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Session H 4

28 November 2024 09:00 - 10:30
B032 (PXL NeXT Building B)
Workshop
Higher education

Faculty narratives: Exploring meaningful moments within the research-teaching-profession nexus

Keywords: Higher Education, Innovations in Education, Knowledge Building and Development, Professionalisation of Educators
Interest group: CLOUD 07 - Research impact on school development

The integration of role identities and utilisation of learning resources within the research-teaching-practice triangle presents a growing challenge for higher education faculty. The challenge is enhancing individual and collective learning within that knowledge triangle. In this narrative inquiry workshop, we explore meaningful moments where faculty merge their role identities and leverage resources and partnerships within the knowledge triangle. Using narrative models, we aim to explore how meaningful moments within the knowledge triangle intertwine with structural elements in lecturers' narrated learning trajectories, including actors, interactions, environments, and events. Drawing from our research, we first illuminate meaningful learning and turning moments through the lens of Aristotle's concepts. Longitudinally tracking 18 lecturer-researchers in higher professional education, we collected narratives about their meaningful moments. Secondly, participants are invited to reconstruct their personal meaningful moments within the knowledge triangle during the workshop. Finally, we collectively

reflect on these moments and the narrative frameworks employed, aiming to elucidate facilitating and inhibiting dynamics in role integration and resource utilisation within the knowledge triangle.

Faculty narratives: Exploring meaningful moments within the research-teaching-profession nexus

Presenting Author: Monica van Winkel, HAN University, Netherlands; **Presenting Author:** Marieke Veltman, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** Hanneke Tuithof, Utrecht University, Netherlands; **Co-Author:** Roeland M. Van der Rijst, ICLON-Leiden University Graduate School of Teaching, Netherlands; **Co-Author:** Sjoerd-Jeroen Moenandar, University of Groningen, Netherlands; **Co-Author:** Rob Poell, Tilburg University, Netherlands; **Co-Author:** Jan van Driel, The University of Melbourne, Australia

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Session H 5

28 November 2024 09:00 - 10:30

B013 (PXL NeXT Building B)

Workshop

Higher education

The teacher as a SLIM tour guide

Keywords: Blended Learning, Curricula, Higher Education, Teaching Approaches

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Education is based on students achieving goals. For most students this is a journey with uncertainty, with highs and lows and sometimes even an uncertain ultimate objective. Can the teacher serve as a tour guide during a students' journey? We have developed a methodology for designing blended education with a focus on different instructional approaches: individual learning, classroom learning, learning communities and individual or group coaching. The Student Learning Itinerary Map (SLIM) helps to plot the different activities, on-campus, online or asynchronous, to ensure the objectives are met. SLIM is not a mere blended wave but instead offers a tangible and visually appealing Student Learning Itinerary Map (SLIM), where the student journey is conveyed. During the workshop small groups of participants will redesign a module with the SLIM methodology, in order to make an integrated mix of different learning activities (f2f and online) for the different instructional approaches.

The teacher as a SLIM tour guide

Presenting Author: Ulrike Stam, Hogeschool van Amsterdam, Netherlands; **Co-Author:** Laura Benvenuti, University of Applied Sciences Amsterdam / Hogeschool van Amsterdam, Netherlands

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Session H 6

28 November 2024 09:00 - 10:30

Montessori (PXL NeXT Building D)

EAPRIL Spotlight Session

Secondary education

Partners in School Development: A Casestudy & Real-Life Story of a Collaborative Research Team (VFO)

Keywords: Collaborative Learning, Inquiry Learning, School Development, Team Learning

Interest group:

This is a spotlight session of VFO (VlaamsForumvoorOnderwijsOnderzoek)The *Research School?!* network engages teachers, student-teachers, and teacher educators in a systematic effort to address educational challenges through collaborative research. Over the course of a school year, teams analyze practical issues, implement evidence-informed solutions, and evaluate outcomes. In this symposium, we present from both a practice (part 1) and research perspective (part 2) how the Brussels CityScope Lyceum involves pupils and other stakeholders as partners in this school development process. The CityScope Lyceum's real-life story showcases how the school since 2021 has progressively expanded its research team to include a broader range of stakeholders, starting with pupils, followed by parents and experts. This participatory approach has not only led to new and interesting team dynamics, but, it has also fostered widely supported solutions to the educational challenges. A single case study conducted at CityScope Lyceum during the 2022-2023 school year investigates team dynamics within this extended collaborative research team. Concept map-mediated interviews were conducted with 13 members of the research team to gain insight into the role allocation and conceptualization of single actors within the team, and their perspectives on how these roles contributed to breakthroughs in the school development process. The findings reveal discrepancies in team members' role conceptions and highlight the need for clear communication to promote equality and positive dynamics. Some actors assign themselves roles that are not recognized by others, while others reject assigned roles. Recommendations include proactively aligning roles, promoting awareness of responsibilities and encouraging dialogue on shared responsibility to improve school development outcomes.

Partners in School Development: A Casestudy & Real-Life Story of a Collaborative Research Team (VFO)

Presenting Author: Jetske Strijbos, UHasselt, Belgium; **Presenting Author:** Emma Van Malderen, Vrije Universiteit Brussel, Belgium; **Presenting Author:** Wouter De Vos, GO! Atheneum UNESCO Koekelberg, Belgium; **Presenting Author:** Evelien Caron, Atheneum campus Unesco Koekelberg, Belgium; **Co-Author:** Vicky Willegems, Vrije Universiteit Brussel (VUB), Belgium

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Session H 7

28 November 2024 09:00 - 10:30

EA 139 (PXL NeXT Building A)

Workshop

Vocational education

Tools for success: Enhancing students' self-regulation in learning

Keywords: Cognitive Skills & Development, Learning Styles / Approaches, Professional Development, Self-regulation and Self-regulated Learning

Interest group: CLOUD 04 - Improving learning and well-being

This workshop aims to present participants with practical strategies and tools to cultivate self-regulation skills in students and their readiness for the current knowledge-based society. The workshop is based on the results of a two-year exploratory comparative case study conducted in an institute for secondary vocational education and training (VET). The results showed self-regulated learning (SRL) as pivotal for institutes that aim to stimulate more personalized learning. The focus of the workshop lies in bridging theory with practice, with emphasis on the implementation of SRL tools within the classroom context. Through an interactive session, participants will gain a deeper understanding of how to integrate SRL-promoting techniques into teaching practices.

Tools for success: Enhancing students' self-regulation in learning

Presenting Author:Charly Boerboom, mboRijnland, Netherlands; **Presenting Author:**Silvia Hoogvorst, mboRijnland, Netherlands

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Session H 8

28 November 2024 09:00 - 10:30

Piot (PXL NeXT Building D)

EAPRIL Spotlight Session

Higher education

Authentic education and cocreation: Best practices and in-depth insights from PXL University College

Keywords: Authentic Learning, Educational Policy, Higher Education, Organisational Learning

Interest group:

This session highlights PXL's approach to authentic education and co-creation, where practice-oriented teaching methods and close collaboration with organizations play a central role. Authentic education and co-creation ensure that students gain real-world experiences early in their education, preparing them for the professional context. Additionally, the strong collaboration with the professional field enriches our education at PXL University College. PXL pursues integrated educational learning activities, mirroring real-world professional contexts, utilizing the Authentic Teaching Model and the Mixed Learning model. The Authentic Teaching Model was developed by PXL University College in the previous policy period (2015-2020) to ensure that every component of the curriculum takes place within an authentic context. This model ensures that our students learn how to combine theoretical knowledge with real-world applicability. Building on the lessons learned from the previous policy period, the current policy period focuses on Mixed Learning, where our educational programs seamlessly combine online, offline, and workplace learning, all within authentic real-world contexts. In this spotlight session, we will delve deeply into the Authentic Learning Model and the Mixed Learning model, exploring how authentic elements can be incorporated into every aspect of learning. We will discuss the implementation strategy and highlight various inspiring good practices.

Authentic education and cocreation: Best practices and in-depth insights from PXL University College

Presenting Author:Ruth Jamers, PXL University op applied sciences and arts, Belgium; **Presenting Author:**Tine Aelter, Hogeschool PXL, Belgium;

Presenting Author:Laura Imre, Hogeschool PXL, Belgium

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Session H 9

28 November 2024 09:00 - 10:30

B011 (PXL NeXT Building B)

Present & Discuss

Higher education, Workplace learning

Assessment Practices in Education and Organisations

Keywords: Assessment and evaluation, Competence-based Education, Creativity, Higher Education, Metacognition and Metacognitive Learning, Organisational Learning, Practice-based Research (methodology), Self-regulation and Self-regulated Learning, Workplace Learning

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 11 - Practice-based Research Methodology, CLOUD 14 - The incubator cloud for organisational learning ideas

Chairperson: Belinda Ommering, Utrecht University of Applied Sciences, Netherlands

Students' perceptions of assessment and its impact on regulating study behaviour

Keywords: Assessment and evaluation, Higher Education, Metacognition and Metacognitive Learning, Self-regulation and Self-regulated Learning

Presenting Author:Jeroen van der Linden, HAN University of Applied Sciences, Netherlands; **Co-Author:**Tamara Schilt-Mol, Hogeschool van Arnhem en Nijmegen, Netherlands

How students perceive summative assessment has an impact on the use of assessment to foster the regulation of study behaviour. However, this impact is not very well investigated. The present study investigated students' perception of assessment within a summative assessment setting, and its impact on the regulating of their study behaviour through qualitative interviews with 17 students from seven different programmes in Higher Education. Results show that students' perceptions focus on both the improvement and the certifying function of assessment, however, their study behaviour is almost exclusively aimed at the certifying function, passing assessments. Students do not alter their study behaviour since this behaviour suffices for passing assessments. This is problematic given the expectations of society and education to let students develop into self-reliant beings. Our conclusion is that with a summative assessment, we are not creating the most conducive environment for developing regulation. Instead, students adhere to assessment compliance.

Realist evaluation of three art-based interventions to enhance creative learning in organizations

Keywords: Assessment and evaluation, Creativity, Organisational Learning, Workplace Learning

Presenting Author:Suzanne Verdonschot, Kessels & Smit, The Learning Company, Netherlands; **Co-Author:**Annebel Hofhuis, Montessori College Arnhem/Kessels & Smit, Netherlands; **Co-Author:**Annemeijne Burggraaf, Kessels&Smit, The Learning Company, Netherlands; **Co-Author:**Jolien Meijer, Kessels&Smit, The Learning Company, Netherlands

Organizations face 'wicked problems' that cannot be solved easily. Be it the the problem of understaffing in healthcare organizations, or the desire to promote learning for a sustainable society. Because of their complex and interconnected nature, these intricate questions cannot be resolved by a rational problem analysis and linear approach. Rather, these questions require a form of creative learning in which the given variables are questioned, and in which new solutions are developed that radically break with the existing way of working. Mechanisms that characterize creative learning comprise combination, and reframing. The present study focuses on the way art and art-based learning can contribute positively to the process of creative learning. Its aim is to explore the way art can add value to the process of innovation in organizations. Three art-based learning interventions are assessed, using the realist evaluation method. Individual interviews, observations, and focus groups are used as primary source of data gathering. Results show that when people are open, engaged, and curious, the interventions can contribute to positive emotions, and defamiliarization. The cognitive flexibility that can emerge thus, seems to be relevant for creative learning of the people who face intricate questions in their organizational context.

Empowering stakeholders in assessment: Co-designing Entrustable Professional Activities

Keywords: Assessment and evaluation, Competence-based Education, Practice-based Research (methodology), Workplace Learning

Presenting Author:Vasiliki Andreou, KU LEUVEN, Belgium; **Co-Author:**Sanne Peters, School of Health Sciences, Faculty of Medicine, Dentistry and Health Sciences, The University of Melbourne, Australia, Australia; **Co-Author:**Jan Eggermont, KU LEUVEN, Belgium; **Co-Author:**Birgitte Schoenmakers, KU LEUVEN, Belgium

This study addresses the critical integration of Entrustable Professional Activities (EPAs) within competency-based education (CBE) in health professions education, centring on two research questions: How can the design of EPAs be optimized to meet the needs of curriculum designers and practitioners? What are the potential challenges in implementing EPAs in real-world clinical settings?Employing a participatory research design, we engaged various stakeholders through two iterative cycles to develop and refine an EPA framework suitable for assessment in clinical practice. The methodology included a modified Delphi approach with clinical competence committees and semi-structured interviews using a think-aloud protocol with trainers and trainees. This approach allowed for extensive stakeholder input in shaping the EPA framework.The research results highlighted unanimous support from different groups for the EPAs. However, significant challenges were identified during the second cycle, such as the large number of EPAs and their practical implementation within busy clinical workflows. The main conclusion drawn from the study is that continuous stakeholder engagement is crucial for ensuring the practicality and effectiveness of EPAs in medical education. This engagement helps balance educational objectives with the realities of clinical practice, making EPAs more adaptable and beneficial for educational practices.

Session H 10

28 November 2024 09:00 - 10:30

Corbu (PXL NeXT Building D)

Present & Discuss

Higher education, Primary education

Enhancing Mathematics Education

Keywords: Beliefs and Conceptions of Learning, Curricula, Educational Effectiveness and Quality of Education, Higher Education, Mathematics Education, Motivation, Numeracy, Team Learning

Interest group: CLOUD 01 - Teacher education, CLOUD 04 - Improving learning and well-being

Chairperson: Suzan van Brussel, Avans university of applied sciences, Netherlands

Developing a PCK observation list for mathematics

Keywords: Beliefs and Conceptions of Learning, Educational Effectiveness and Quality of Education, Mathematics Education, Numeracy

Presenting Author:Madeleine Vliegthart, Thomas More Hogeschool, Netherlands; **Co-Author:**Michiel Veldhuis, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Tutors in a high dosage tutoring program generally are not specifically schooled for teaching mathematics. In this paper, we describe the development of a system for qualifying tutors' actions within mathematics tutoring sessions. An association that provides *high dosage tutoring* mathematics programs for primary school students in Rotterdam uses an observation instrument evaluating tutors' quality tutoring. This paper describes enriching the observation instrument with mathematical pedagogical content knowledge (Schulman, 1986).In this context we answer the following research question: How are the different perspectives of domain-specific and domain-general didactics apparent in the process of redeveloping an observation scale in a high dosage mathematics tutoring context? We describe the redevelopment of the observation instrument. We found that where general pedagogics focusses on organizing teaching and the pedagogical relation with students, the domain specific point of view reflects a development in students mathematizing their world. We observed that this led to productive conflict, where, based on valid arguments, choices are needed. This choice making on the one hand leads to the adapted observation instrument and on the other hand to development on the boundary of general pedagogy and domain specific teaching in mathematics.

How to reduce math anxiety in a large undergraduate course

Keywords: Higher Education, Mathematics Education, Motivation, Team Learning

Presenting Author:Evelien Opdecam, Ghent University, Belgium; **Co-Author:**Philippe Carette, Ghent University, Belgium; **Co-Author:**Frederik Gially, Ghent University, Belgium; **Co-Author:**Fanny Buysschaert, Ghent University, Belgium

Students with math anxiety experience tension, worry, and fear when faced with math tasks (Suinn & Winston, 2003). This anxiety can negatively impact mental health and well-being of individuals (Desmedts, et al. 2022) and hinder students' math performance (Namkung et al, 2019; Barroso et al, 2021). This study examined the relation between math anxiety of first-year mathematics students and performance, moderated by motivation. Team learning was implemented to potentially reduce math anxiety. Based on existing research, we hypothesize that motivation moderates the relation between math anxiety and performance. This hypothesis is grounded in Self-Determination Theory (SDT), which proposes three universal (fundamental) psychological needs (i.e. autonomy, competence and relatedness whose fulfilment leads to positive outcomes, but when frustrated (need frustration), have negative consequences (Deci & Ryan, 2000).

Preservice teachers' awareness of developmental trajectories in mathematics teacher education

Keywords: Curricula, Higher Education, Mathematics Education, Numeracy

Presenting Author: Sonja Stuber, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:** Michiel Veldhuis, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

In the mathematics meetings at primary school teacher education most of the attention is devoted to the learning and developmental trajectories of primary school students (e.g., Van den Heuvel-Panhuizen, 2008). A topic to which much less attention is devoted is preservice teachers' own learning and developmental trajectories in mathematics education. Our research question is: *How aware are preservice teachers of their developmental trajectories in mathematics in primary school teacher education?* We used an online questionnaire to investigate preservice teachers' ideas about their developmental trajectories, in ten questions, in mathematics at primary school teacher education. For this, 58 preservice teachers in their first ($n = 39$) and in their second year ($n = 19$) at IPABO University of Applied Sciences, Amsterdam, responded. The main results are that preservice teachers do not show much awareness of their own learning trajectory in mathematics, they do mention still needing some more knowledge, but what that consists of remains difficult to pinpoint. They rarely exhibit understanding of how activities in teacher education are related to the three separate learning trajectories. Nonetheless the first and second year preservice teachers express feeling rather competent in teaching mathematics in primary school ($M = 7.01$).

Session H 11

28 November 2024 09:00 - 10:30

Pacioli (PXL NeXT Building D)

Workshop

Primary education

EmpowerED. Empowering primary teachers in dealing with challenging behavior: interactional approach.

Keywords: Interaction and Discourse in Education, Primary School Education, Self-efficacy, Teacher Thinking

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Starting primary school teachers often struggle with students' challenging behavior. They risk emotional exhaustion and a decrease in their teacher self-efficacy. EmpowerED researches this problem from the perspective of the dyadic teacher-student relationship and the interactional approach. A theoretical framework outlining the dynamics was developed in 2022-2023, based on a scientific literature study.

The project EmpowerED aims to empower novice teachers with the necessary strategies and materials for fostering high-quality dyadic teacher-student relationships and enhancing their relational and interaction skills in the classroom. The interactive workshop will first clarify the theoretical framework. Then participants will discuss and reflect on elements in the framework. Emphasis will be placed on cultivating warm teacher-student relationships to enhance classroom dynamics while maintaining teachers' self-efficacy. We will explore which practical approaches or actions are necessary to implement into the teaching repertoire. In addition, we consider what support and coaching novice teachers need to achieve these insights and results. By bridging theory and practice, this workshop equips participants with actionable insights to elucidate the complexities of classroom interactions and teacher self-efficacy in dealing with challenging behavior.

EmpowerED. Empowering primary teachers in dealing with challenging behavior: interactional approach.

Presenting Author: Claudia Lento, Hogeschool PXL, Belgium; **Presenting Author:** Kristel Stinckens, PXL University College, Belgium

Starting primary school teachers often struggle with students' challenging behavior. They risk emotional exhaustion and a decrease in their teacher self-efficacy. EmpowerED researches this problem from the perspective of the dyadic teacher-student relationship and the interactional approach. A theoretical framework outlining the dynamics was developed in 2022-2023, based on a scientific literature study.

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Session H 12

28 November 2024 09:00 - 10:30

Blackbox (PXL NeXT Building D)

Workshop

Contribute to students' perspectives in education and work! Mastering design principles

Keywords: Higher Education, Practice-based Research (methodology), Professional Development, Vocational Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

The research project focuses on gaining insight into guidance practices and into study and work-related interests of students, with the ultimate aim that more students find perspective in education and work. The project is carried out at institutions of secondary vocational education (EQF levels 3/4), higher professional education and academic higher education (EQF-levels 6/7). In this workshop, we invite participants to experience the design principles developed based on the findings in the research project. The design principles were formulated using the expertise and experiences of educational designers, students, and lecturers during three advisory board meetings. After a short presentation of the research project and its findings, we present the design principles and then invite participants to apply them to their own practices, using interactive techniques such as voting on statements, and simulations. The first aim of the workshop is to stimulate participants' reflections on their own guidance practices in their role as supervisors by experiencing the design principles and connecting them to their own situations. The second aim is to discuss how the design principles can be implemented broader so that ultimately, more students will find perspective in education and work. Join us and master the developed design principles!

Contribute to students' perspectives in education and work! Mastering design principles

Presenting Author: Rineke Keijzer, Rotterdam University of Applied Science, Netherlands; **Co-Author:** Dineke Tigelaar, ICLON, Leiden University, Netherlands;

Co-Author: Lysanne Post, ICLON - Leiden University Graduate School of Teaching, Netherlands

The research project focuses on gaining insight into guidance practices and into study and work-related interests of students, with the ultimate aim that more students find perspective in education and work. The project is carried out at institutions of secondary vocational education (EQF levels 3/4), higher professional education and academic higher education (EQF-levels 6/7). In this workshop, we invite participants to experience the design principles developed based on the findings in the research project. The design principles were formulated using the expertise and experiences of educational designers, students, and lecturers during three advisory board meetings. After a short presentation of the research project and its findings, we present the design principles and then invite participants to apply them to their own practices, using interactive techniques such as voting on statements, and simulations. The first aim of the workshop is to stimulate participants' reflections on their own guidance practices in their role as supervisors by experiencing the design principles and connecting them to their own situations. The second aim is to discuss how the design principles can be implemented broader so that ultimately, more students will find perspective in

education and work. Join us and master the developed design principles!

Session H 13

28 November 2024 09:00 - 10:30

Erlich (PXL NeXT Building D)

Case study

Primary education, Vocational education

Supporting Metacognition and Study Success for At-Risk Students

Keywords: At-risk Students, Equality / Education for All, Instructional Design and Instructional Strategies, Metacognition and Metacognitive Learning, Primary School Education, Vocational Education, Well-being & Engagement

Interest group: CLOUD 08 - Diversity & equality in different contexts, CLOUD 11 - Practice-based Research Methodology

Chairperson: Maiza de Albuquerque Trigo, University of Luxembourg, Luxembourg

How to Promote and Recognize the Growth of Children's Metacognition with Learning Difficulties

Keywords: At-risk Students, Instructional Design and Instructional Strategies, Metacognition and Metacognitive Learning, Primary School Education

Presenting Author: Natsuki Kanamori, The University of Tokyo, Japan; **Co-Author:** Yuri Uesaka, The University of Tokyo, Japan

In regular elementary school classrooms in Japan, there are a certain number of students facing learning difficulties. While some of them already receive individual support outside of class, much of it tends to focus on reviewing previously learned material. However, it is particularly important for them to develop the ability to recognize their own areas of confusion to sustainably learn themselves from daily classes. Therefore, in this practice, intervention aimed to enhance the monitoring function of metacognition was conducted in after-school small-group lessons already implemented for students facing learning difficulties. The target students were five fourth-grade students from Japanese elementary schools who showed learning difficulties, and they received five sessions of 45-minute arithmetic lessons. As intervention methods, students were prompted to write down their own objectives before the lesson, key points during the lesson, and reflections after the lesson. Initially, metacognitive changes through lesson were measured using questionnaires, but no changes were observed at all. Then, qualitative analysis of students' descriptions revealed a gradual improvement in metacognition. Here, we introduce teaching methods to improve metacognition of children showing learning difficulties, and the qualitative transformation process of metacognition in the early stages of development, which cannot be captured by questionnaires.

All students need network support; a study-enhancing home environment for study success.

Keywords: At-risk Students, Equality / Education for All, Vocational Education, Well-being & Engagement

Presenting Author: Judith van Driel, Albeda College, Netherlands

The aim of the field study was to support suitable study-enhancing home environment among first-year nursing students in an educational partnership triangle (school, student, home) for study success by generating opinions and practical knowledge about a study-supportive home environment with questionnaires. Home stakeholders we offered an information card and website; followed by joint (video calling) meetings. The intervention is literature-based and was developed in collaboration with a development team and student council, and implemented by mentors. The impact of the intervention was measured through a pre- and post-test with QuickScans among mentors and questionnaires (based on observation scales of Lusse) among students and home stakeholders. Qualitatively, mentors seem to be in favour of more intensive design of the pedagogical triangle with joint policies, time investment, communication and training to address the dilemmas of the pedagogical triangle. Quantitatively, students and home stakeholders placed less value on informal contact and more value on being serious interlocutors, especially during crucial course moments. Their opinions became more convergent, especially on the role of the mentor and the student's consent to contact. The intervention invests in the educational partnership and provides tools for study supporting behaviour at home.

Session I 1

28 November 2024 11:30 - 13:00

Montessori (PXL NeXT Building D)

Present & Discuss

Higher education, Primary education, Vocational education

Promoting Well-Being: Interventions Across Educational Contexts

Keywords: Inclusivity, Innovations in Education, Mentoring, Pandemic, Practice-based Research (methodology), Special Educational Needs, Stakeholder partnerships, Vocational Education, Well-being & Engagement

Interest group: CLOUD 04 - Improving learning and well-being

Chairperson: Harry Stokhof, HAN University of Applied Sciences, Netherlands

Interventions to promote students' psychological, social, and emotional well-being

Keywords: Innovations in Education, Mentoring, Pandemic, Well-being & Engagement

Presenting Author: Jolise 't Mannetje, Saxion University of Applied Sciences, Netherlands; **Co-Author:** Rilana Prenger, Saxion University of Applied Sciences, Netherlands; **Co-Author:** Wouter Vollenbroek, ROC van Twente, Netherlands; **Co-Author:** hannie gijlers, University of Twente, Netherlands

Student success increases when students experience positive mental well-being. The corona pandemic has had a lot of (negative) impact on young people's mental well-being. That is why educational institutions through the targeted use of NPO funds to limit the negative impact of the of the pandemic on the mental well-being of students. Amongst others by providing students with mentoring more intensively and organizing extra bonding activities, attempts have been made to boost the mental well-being of students and to make help available for mental problems easily accessible. This study focuses on interventions deployed at vocational education, universities of applied sciences and research universities. The effects of study coaching interventions at all three educational levels were compared. In addition, active ingredients of a number of interventions that were specifically deployed at one of the institutions were investigated. These insights can contribute to the further development of these interventions, both at the institutions involved and beyond.

Perspectives for Students in Education and Work – A case study in vocational education

Keywords: Mentoring, Practice-based Research (methodology), Vocational Education, Well-being & Engagement

Presenting Author: Lysanne Post, ICLON - Leiden University Graduate School of Teaching, Netherlands; **Co-Author:** Rineke Keijzer, Rotterdam University of Applied Science, Netherlands; **Co-Author:** Dineke Tigelaar, ICLON, Leiden University, Netherlands

The presented study is part of a larger study investigating guidance practices with regard to study choice, study career and future orientation. The research questions are: (1) How do students engage with their interests and other personal projects in relation to study and work? and (2) What learning experiences do students and teachers have in relation to study guidance? This is examined through case studies providing rich data, collected through questionnaires, logbooks, daily calls, personal projects analyses, laddering interviews, and in-depth interviews. Illustrating the rich data and its value for educational practice, one of these case studies will be presented. The first results of this case study of a student and a teacher in vocational education show that students' interests can present very valuable opportunities for teachers to improve guidance, but that this can be quite difficult. This stresses the importance of building a good professional relationship with students and creating a safe environment to be able to provide appropriate guidance.

School-based early intervention for psychosocial difficulties: What affects pupils' admittance?

Keywords: Inclusivity, Special Educational Needs, Stakeholder partnerships, Well-being & Engagement

Presenting Author:Marloes Jaspers-van der Maten, Radboud University Nijmegen, Netherlands

Social, emotional and behavioral difficulties (SEBDs) are common in children and can negatively affect educational and social engagement, well-being, academic performance and mental health. School-based programs can contribute to timely identification of and intervention for children with SEBDs. In that respect, it is important to prevent over- and underrepresentation of certain groups of children. This study used case data (n = 3719) reported by specialist child support workers as part of an indicated prevention initiative, implemented at 43 regular primary schools in a Dutch city over a five-year period (2017-2021). Part of the registered cases received an intervention in the context of this initiative. Using a multilevel approach, we examined which pupils accessed interventions, and which child- and school-level characteristics predicted admittance. Results show that different types of SEBDs were identified and frequently co-occurred. Admittance due to certain types of difficulties was affected by pupils' migration background, age, sex, and the type of registrant, but also by school factors. Results underline the need to invest in careful identification procedures, to ensure that school-based initiatives can actually support learning and well-being of students with SEBDs.

Session I 2

28 November 2024 11:30 - 13:00

Piot (PXL NeXT Building D)

Present & Discuss

Higher education, Lifelong learning, Workplace learning

Collaborative Strategies for Supporting At-Risk Students

Keywords: At-risk Students, Collaborative Learning, Equality / Education for All, Higher Education, Learning Analytics, Lifelong Learning, Mentoring, Practice-based Research (methodology)

Interest group: CLOUD 02 - Educators' professional development, CLOUD 07 - Research impact on school development, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Marieke Veltman, Windesheim University of Applied Sciences, Netherlands

Co-teaching for professional development: the eye of the tiger

Keywords: At-risk Students, Collaborative Learning, Lifelong Learning, Practice-based Research (methodology)

Presenting Author:Jantien Gerdes, OSOF, Netherlands; **Co-Author:**Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Fleur Marcus, OODA, Netherlands; **Co-Author:**Merel Schulte, PI-scholen Amsterdam, Netherlands; **Co-Author:**Simone Groot, OODA, Netherlands

Several school boards responsible for both regular and specialized primary education in Amsterdam joined forces to implement the co-teaching approach. In this research project, we explored what teachers in co-teaching settings need for collaborative learning, how organizations can support professional development, and the potential of co-research to foster sustainable teacher professional growth. The project adopted an emergent research design. The research team consisted of professionals who initiated the co-teaching project and professional researchers. The methods employed to answer the research questions involved the use of art-based instruments and documentary podcast. The initial results indicate that courage is a significant factor in engaging in co-teaching. The preliminary findings on co-research demonstrate the benefits of inclusive and collaborative methods, in generating data for research, and providing insights for the professionals involved. Furthermore, the results reveal how the concept of storytelling empowers professionals to engage in the act of conducting research. The results help improve educational practice by shedding light on the elements that support professional development through co-teaching. The research project contributes to the current field of participatory action research by proposing the promising approach of using podcasts as an art-based method.

Research informed development of a learning analytics dashboard for student counsellors

Keywords: At-risk Students, Higher Education, Learning Analytics, Practice-based Research (methodology)

Presenting Author:Sabrina Govaerts, AP University of Applied Sciences and Arts Antwerp, Belgium; **Presenting Author:**Gert Vanthournout, AP University of Applied Sciences and Arts, Belgium

Student counsellors (SC) in higher education are expected to support students in various ways. However, relevant information about their student population is often fragmented and scattered across various databases. Using Educational Design Research (EDR; McKenney & Reeves, 2014) the project 'Data disclosure for SC' aimed at developing a relevant, accessible and user-friendly learning analytics dashboard. EDR is a research methodology that aims at producing both scientific knowledge and educational innovations by iteratively alternating research (needs analysis and user testing) and development activities. The needs analysis inquired about the data SC currently use to monitor their student population and how they perceive using a dashboard. The user testing research mapped out SC' experiences with the dashboard prototype. The needs analysis demonstrated that SC want the dashboard to help them monitor trends in their student population, identify student groups with specific characteristics and access student profiles to prepare for counselling sessions. User testing research demonstrated a predominantly positive user experience. Participants stated a need for professional development on how to operate the dashboard. They also noted the language in the dashboard was too technical. Finally, participants indicated variables they wanted added. These concerns were met in the final revision of the dashboard.

Insight in the development of career agency of young adults in vulnerable positions.

Keywords: At-risk Students, Equality / Education for All, Lifelong Learning, Mentoring

Presenting Author:Marijn Neuman-Sjonger, Firda, Netherlands; **Co-Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**Monique Volman, University of Amsterdam, Netherlands

This research focuses on the development of career agency as an emergent phenomenon. We aim to understand this phenomenon with young adults in vulnerable positions and focus on how their career agency can be strengthened. Building on a conceptual model we have developed earlier, the focus of *this* study is on the experience of frictions of young adults when their career agency does not emerge and what they (can) do to break through these frictions. We call these efforts to break through friction intraventions (Sannino et al, 2016). To collect data, we have interviewed 25 young adults. A phenomenological analysis approach (Van der Meide, 2018) guided the data analysis. The transcripts of the interviews were converted into textual portraits that tell the stories of the young adults. Each meaningful unit in the textual portraits was considered and informed the conceptual model which thus developed and was substantiated with empirical argumentation.

Session I 3

28 November 2024 11:30 - 13:00

Pierre Cox (PXL NeXT Building D)

Present & Discuss

Higher education, Primary education

Mathematics Education: Cultivating Socialisation and Addressing Anxiety

Keywords: Culture and Education, Emotions and Emotional Development, In-service Teacher Training, Initial Teacher Education (Pre-service), Mathematics Education, Numeracy, Primary School Education

Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development

Chairperson: Christina Stabourlos, Belgium

Value-based mathematic education for socialization of students

Keywords: Culture and Education, Mathematics Education, Numeracy, Primary School Education

Presenting Author:Jeroen van Rumpst, Driestar Christian University for Teacher Education, Netherlands; **Co-Author:**Willemien Eikelboom, Hogeschool KPZ, Netherlands; **Co-Author:**Janneke Buikema-Visscher, NVORWO, Netherlands; **Co-Author:**Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Preparing children's mathematical literacy is one of the main goals of mathematics education so children can use mathematics to contribute constructively and value-based to our society (OECD, 2023). Mathematics education should pay attention to qualification, socialization, and subjectification (Biesta, 2010a). In reality there is a disbalance in approach and socialization and subjectification needs to get more emphasis in mathematics education (SLO, 2021). To design exemplary mathematical activities for socialisation there is a need to know of what elements socialization of mathematics education contains. We therefore investigate the following research question: Which model explains the socializing role of mathematics education and adjacent factors? A literature review and experts meetings resulted in a model visualizing socialization (fig. 3). Key elements are *mathematics*, *values* and *world*. During the project we investigated the relationships between these elements. Finally we defined them as *mathematical literacy*, *citizenship* and *value-based mathematics*. This model is starting point for future design research. We will use the model in forming design requirements and describing the role of values in current mathematics education. First results shows that examples of mathematical literacy turns out to be a good starting point to discuss other parts of the model.

Preparing students for society from a mathematical point of view

Keywords: In-service Teacher Training, Mathematics Education, Numeracy, Primary School Education

Presenting Author:Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Presenting Author:**Michiel Veldhuis, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Mathematics teaching plays a crucial role in preparing students for the current and future society (OECD, 2018). National standards for mathematics teaching in primary education in the Netherlands confirm this point of view (Prenger, et al., 2023). However, it is unclear whether mathematics teaching in the classrooms has the same focus. The question is whether teachers, in their teaching practice, stimulate students mathematizing their world (Gravemeijer & Terwel, 2000). We therefore investigate the following research question: How do primary school teachers in their mathematics teaching prepare students for society? In a survey with open-ended questions with 32 teachers and in interviews with three teachers, primary school teachers were presented with several situations relevant to functioning in society. The teachers were asked to describe how their teaching prepares students for dealing with these situations. In our analysis we labeled and categorized when and how teachers in their responses refer to their mathematics teaching. Teachers only refer to their mathematics teaching in obvious cases when a content domain was foregrounded. We noticed that the interviews elicited more references to mathematics teaching, when the interviewer focused hereon. We therefore conclude that realizing how mathematics teaching prepares students for society needs expert scaffolding.

Math anxiety in primary teacher education

Keywords: Emotions and Emotional Development, Initial Teacher Education (Pre-service), Mathematics Education, Numeracy

Presenting Author:Danny Pasaribu, Hogeschool De Kempel, Netherlands; **Co-Author:**Bas van der Weijden, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Michiel Veldhuis, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Mara Otten, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:**Ronald Keijzer, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands

Pre-service teachers in the last year of their teacher education program experience negative feelings about mathematics and show signs of math anxiety. In this multiple case-study, we retrospectively investigate the foundation of these negative feelings about mathematics, focusing on the following research question: How does math anxiety develop in pre-service teachers' past and present? We held semi-structured interviews with three pre-service teachers focused on their mathematics experiences in the past and their perception of the origin of their math anxiety. We also observed two of these pre-service teachers during their internships while teaching a mathematics lesson. The aim of this study was developing a framework for the establishment of pre-service teachers' math anxiety. In both the interviews and the observed lesson, pre-service teachers mentioned possible factors for the foundation of their math anxiety. Through our analyses we determined four important factors for the foundation of their math anxiety, namely their, positive and negative, experiences with teachers, schools, assessments, and curriculum materials.

Session I 4

28 November 2024 11:30 - 13:00

Erlach (PXL NeXT Building D)

Present & Discuss

Higher education, Lifelong learning

Note-Taking and Motivation in Digital Learning Environments

Keywords: 21st Century Learning, Distance Education, Higher Education, Instructional Design and Instructional Strategies, Motivation, Technology Enhanced Learning, Video-based Learning

Interest group: CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Emmy Vrieling-Teunter, Open University of the Netherlands, Netherlands

Learning from how-to videos: The influence of note-taking, intellectual values, and smartphone usage

Keywords: Distance Education, Instructional Design and Instructional Strategies, Technology Enhanced Learning, Video-based Learning

Presenting Author:Markus H. Hefter, Bielefeld University, Germany

How-to videos have become extremely popular. Studies have shown for decades how note-taking supports video learning, albeit under supervised lab or classroom settings. By contrast, we focus on note-taking while learning from a how-to video in a distance learning setting. Distance learning however carries the risk of learners' digital distraction, potentially harming learning. This is particularly relevant considering how widespread and excessive smartphone use has become these days. We therefore tested note-taking's effectiveness while learning with an online how-to video while also aiming to identify potential risk and protective factors for such distance learning, such as smartphone usage time and intellectual values. In an online field experiment, undergraduate psychology students ($N = 59$) learned with a how-to video on plumbing with or without a request to take notes. Note-takers reported stronger learning engagement and outperformed non-note-takers in a posttest about the video content. Learning engagement mediated the note-taking effect on learning outcomes. Furthermore, intellectual values contributed positively, whereas the mean daily smartphone usage time contributed negatively to learning outcomes. Overall, our results yield relevant and practical advice for students while learning with online how-to videos: take notes and avoid digital distractions, in particular by their smartphones.

The beneficial effects of taking and keeping notes when distance learning with a video lecture

Keywords: Distance Education, Higher Education, Technology Enhanced Learning, Video-based Learning

Presenting Author:Markus H. Hefter, Bielefeld University, Germany; **Co-Author:**Kirsten Berthold, Bielefeld University, Germany

Seeking a way to optimize learning from prerecorded video lectures, we focus on very prominent and intuitively appealing approach, namely note-taking. Unlike previous research, we aim for maximum ecological ecology and practical relevance. We therefore applied authentic field conditions combining five aspects typical for online university lectures: a) asynchronous distance learning, b) a 45-minute unsegmented video lecture, c) no instructional support such as prompts, d) no submitting of notes, and e) a delayed posttest after five weeks. We conducted a web experiment with 61 undergraduate psychology and teacher students. These students learned with a 45-min. video lecture on "Vygotsky and the Cognitive Apprenticeship Approach" in an asynchronous distance learning setting. Note-takers ($n = 33$) reported higher learning engagement than the non-notetakers ($n = 28$). In the posttest, note-takers also outperformed non-note-takers in their surface-related declarative knowledge, but not in their more in-depth conceptual knowledge. After five weeks however, the note-takers did outperform the non-note-takers in conceptual knowledge. Note-keeping and interim engagement predicted conceptual knowledge after five weeks. Overall, our findings provide empirical and ecological valid support for instructors to advise their learners how to benefit from online video lectures: make notes, keep your notes and engage

with the lecture's content.

A teleonomic view on motivation and learning quality within digital learning environments

Keywords: 21st Century Learning, Distance Education, Motivation, Technology Enhanced Learning

Presenting Author:Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland; **Co-Author:**Sandrine Favre, PHBern, University of Teacher Education, Switzerland

School instruction tries to achieve learning motivation by means of rewards, positive feedback, student-oriented methods etc. In the context of digitalisation and gamification in education – besides new forms of instruction – also the learning and user experience plays an important role. In this study we refer to two motivational experiences in terms of goal-oriented learning: hedoné and eudaimonia and ask what quality criteria indicate either a hedonic or an eudaemonic learning experience in digital self-guided learning environments. Results show that basic criteria are associated with goal-oriented eudaimonia and complementary criteria add to the experience of hedonic pleasure. With this developers have a guideline what to consider for a learning environment to be effective and motivational.

Session I 5

28 November 2024 11:30 - 13:00

EA 139 (PXL NeXT Building A)

Workshop

Early childhood education

It's not rocket science: teachers and parents towards a richer language environment for preschoolers

Keywords: Diversity, Language Education, Parental Involvement in Learning, Pre-school Education / Kindergarten

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

This workshop will introduce you to the three-stage rocket through which preschoolers - through teacher and parent support - are brought into a richer language environment fuelled by academic optimism (Hoy, 2012). The aim of this workshop is to - introduce participants to the three-stage rocket for enriching preschoolers' language environment- understand the importance of the warm partnership with parents in creating a language-rich environment- recognise picture books suitable for storytelling with a non-educated co-reader- provide an initial introduction to the multilingual reading approach - learn how to work with a soundboard as a language stimulation tool- discover stimulating ways to engage parents in qualitative dialogue with their child Through demonstration of the developed materials that were tested profoundly in the working field, material analysis, creation, and discussion, this workshop will kickstart your linguistic approach effectively.

It's not rocket science: teachers and parents towards a richer language environment for preschoolers

Presenting Author:Saar Steverlinck, Hogeschool PXL, Belgium; **Co-Author:**Hanne Rosius, Hogeschool PXL, Belgium; **Co-Author:**Annelies Stiers, Hogeschool PXL, Belgium

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Session I 6

28 November 2024 11:30 - 13:00

Pacioli (PXL NeXT Building D)

Workshop

Higher education

How can we apply research results on students' belonging and well-being in VET and higher education?

Keywords: Higher Education, Professionalisation of Educators, Vocational Education, Well-being & Engagement

Interest group: CLOUD 04 - Improving learning and well-being

To improve social connection and well-being among students, the Dutch government has allocated financial resources through the Nationaal Programma Onderwijs (NPO). This has resulted in the development of various initiatives and approaches to strengthen sense of belonging and well-being in vocational (mbo) and higher education (hbo and wo). With this research project, we aimed not only to identify the approaches educational institutions have developed but especially to determine which elements in those approaches promote belonging and well-being. To gain insight into this, we conducted focus group discussions with educational professionals and students from three educational institutions in the Netherlands (mbo, hbo, and wo). In this workshop, we invite participants to experience the effective elements in the approaches. The workshop starts with a short introduction of the research project and its main findings. The workshop is highly interactive, using techniques such as voting on statements and discussing example cases. The first aim of the workshop is to stimulate participants' reflections on their own experiences with, or as, students. The second aim is to discuss how the effective elements can be implemented in their own contexts.

How can we apply research results on students' belonging and well-being in VET and higher education?

Presenting Author:Zwaan Zwart, Noorderpoort, Netherlands; **Co-Author:**Annegien Langeloo, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Aafke van Mourik Broekman, Hanze University Groningen. University of Applied Sciences, Netherlands; **Co-Author:**Elanor Kamans, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Nadira Saab, Leiden University, Netherlands; **Co-Author:**Dineke Tigelaar, ICLON, Leiden University, Netherlands; **Co-Author:**Marca Wolfensberger, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Mariken van Hofwegen, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Suzan van Brussel, Avans University of Applied Sciences, Netherlands

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Session I 7

28 November 2024 11:30 - 13:00

B013 (PXL NeXT Building B)

Workshop

Higher education

Workshop: Evaluating Educational Design

Keywords: Assessment and evaluation, Blended Learning, Curricula, Higher Education

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments

Creating an educational design is a (time-)intensive process. The focus point in education frequently centers on the execution of the educational design, insufficient attention is devoted to the educational development process. According to the ADDIE model, this development process can be divided in several phases (Molenda, 2003). The analysis phase: the learning needs are identified; the design phase: the learning trajectory is structured and learning objectives are determined; the development phase: further development takes place; the implementation phase/the evaluation phase: aims to improve the educational design. Currently, the evaluation phase mostly consists of student-evaluation, although research indicates these are unreliable and invalid (Heffernan, 2022). The presented toolkit focuses on the effective evaluation of educational designs. It is based on a literature study, examining both evaluation theories and - instruments. Based upon these findings, teacher- and student questionnaires were collected, reviewed and incorporated into the toolkit. Simultaneously, a survey was conducted to gain insight into teachers' evaluation needs. Based on theory and results, a concept version of the toolkit was developed. Which was altered after feedback from educational professionals. In this workshop, the toolkit is used as a navigator through the design process, providing practitioners with tools to enhance their educational design.

Workshop: Evaluating Educational Design

Presenting Author:Renée Schrauwen, Hogeschool INHOLLAND, Netherlands

Creating an educational design is a (time-)intensive process. The focus point in education frequently centers on the execution of the educational design, insufficient attention is devoted to the educational development process. According to the ADDIE model, this development process can be divided in several phases (Molenda, 2003). The analysis phase: the learning needs are identified; the design phase: the learning trajectory is structured and learning objectives are determined; the development phase: further development takes place; the implementation phase/the evaluation phase: aims to improve the educational design. Currently, the evaluation phase mostly consists of student-evaluation, although research indicates these are unreliable and invalid (Heffernan, 2022). The presented toolkit focuses on the effective evaluation of educational designs. It is based on a literature study, examining both evaluation theories and - instruments. Based upon these findings, teacher- and student questionnaires were collected, reviewed and incorporated into the toolkit. Simultaneously, a survey was conducted to gain insight into teachers' evaluation needs. Based on theory and results, a concept version of the toolkit was developed. Which was altered after feedback from educational professionals. In this workshop, the toolkit is used as a navigator through the design process, providing practitioners with tools to enhance their educational design.

Session I 8

28 November 2024 11:30 - 13:00

B012 (PXL NeXT Building B)

Workshop

Higher education

Higher education teachers studying in a master using theory of change models as innovation pathways

Keywords: Higher Education, Innovations in Education, Practice-based Research (methodology), Professionalisation of Educators

Interest group: CLOUD 02 - Educators' professional development

Professional higher education (PHE) is responsible for preparing graduates to function as professionals in today's knowledge-driven society. Bachelor's or master's degree holders must possess the ability to actively contribute to developing their professional practice. At the end of their program, students are required to complete a capstone project, which involves tackling a complex problem within professional practice through practice-based research. During this workshop, an educational master's student team will exhibit their capstone projects, which utilized action research to promote innovation, and change in their respective professional practices. The students will demonstrate how Theory of Change (ToC) can be applied to highlight pathways to innovation. All students were educators employed in a PHE and enrolled in a professional educational master's program between 2022-2024. They were selected by their employers to develop their own specific professional context and to hone their skills as innovators to further leadership and entrepreneurial abilities within their field. Following the introduction of ToC models and an explanation of innovation pathways, PHE-educators will employ ToC as a lens to 're-imagine' their capstone projects in several open spaces. They will engage with participants to explore the potential of ToC models in future practice to advance evidence-informed higher education.

Higher education teachers studying in a master using theory of change models as innovation pathways

Presenting Author:Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Mariska Van Haeften, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Ivette Halkes, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Simone de Roode, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Lima Salim, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Mireille van de Willik, Windesheim University of Applied Sciences, Netherlands

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Session I 9

28 November 2024 11:30 - 13:00

EA 138 (PXL NeXT Building A)

Workshop

Vocational education

Testing: an opportunity for enhancing the impact of learning

Keywords: Assessment and evaluation, Professional Development, Self-regulation and Self-regulated Learning, Vocational Education

Interest group:

The educational landscape is evolving, and schools for Vocational Education (VE) are looking for an increasing extent of ways to make learning visible in an appropriate, modern way. Within Scalda, a VE-institute in the Netherlands, we have conducted practice-based research within five learning environments at the boundary of school and work, focused on testing as a means to make learning visible. In addition to document-analyses, focus group interviews were conducted

with students, teachers and professional field partners to gather (compose) the intended assessment, the assessment (?) which has been carried out and the experiences with the conducted forms of assessment (based on Van den Akker, 2003). Although the learning environments differ in educational approach and content, they generally use similar testing strategies. During this workshop we present the results of our research in an interactive manner. We invite participants to roll up their sleeves and to work with the practical tools that have been developed based on the research results. Together we will think about how to ensure that tests are not just moments of evaluation, but rather provide direction to students' learning process and make it visible.

Testing: an opportunity for enhancing the impact of learning

Presenting Author:Mark Meeuwisse, Scalda, Netherlands; **Co-Author:**Petra Poelmans, Scalda, Netherlands

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Session I 10

28 November 2024 11:30 - 13:00

Corbu (PXL NeXT Building D)

Workshop

Workplace learning

Cocreation in research-practice-partnerships: unruly, challenging and of added value

Keywords: Organisation of Educational Research, Practice-based Research (methodology), Research Cooperation Frameworks, Stakeholder partnerships

Interest group: CLOUD 11 - Practice-based Research Methodology

In Research Practice Partnerships (RPPs), researchers and practitioners work together to research solutions to a shared practice issue. A key question is how best to shape collaboration in this co-creation. This workshop starts with an open exploration of collaborations that pairs of workshop participants have experienced. Firstly, each pair literally draws a depiction of a successful cocreative collaboration using some guiding questions. No words are allowed in the drawing. Secondly, each pair verbally explains their drawing to another pair. We then present - in a nutshell - the results of an RPP's self-examination of their own collaboration around a shared practice issue. What do we know about this from previous research, how did the collaboration go in practice, what turns out to be recalcitrant and how can collaboration be strengthened? Using these insights, the workshop participants will reflect on their own experiences as they have drawn and exchanged before. Thus, we expect to feed both the participants and ourselves with insights about RPPs.

Cocreation in research-practice-partnerships: unruly, challenging and of added value

Presenting Author:Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands; **Presenting Author:**Jeroen Rozendaal, University of Applied Science Rotterdam Hogeschool Rotterdam, Netherlands

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Session I 11

28 November 2024 11:30 - 13:00

Blackbox (PXL NeXT Building D)

Workshop

Primary education

How to become changemakers? Tools for Social Entrepreneurship Education

Keywords: Primary School Education, Self-efficacy, Sustainability, Teaching Approaches

Interest group: CLOUD 10 - Education for Sustainability

As part of citizenship education, primary schools in The Netherlands face the challenge of preparing their pupils to participate in and shape society. Teachers often puzzle with developing accurate instruction regarding experience his part of citizenship education. Providing Social Entrepreneurship Education (SEE) is a possibility to take up this challenge. SEE can be positioned at the intersection of Education for Sustainable Development and Entrepreneurship Education. SEE focuses on developing civic engagement and teaches children to make choices and contribute to shaping society in the connection with themselves, others and the world. It is education that empowers students and encourages them to become changemakers. The workshop focuses on the application of tools developed for SEE in order to reduce teachers' perceived struggle to develop accurate instruction. The goal of the workshop is to get inspired and acquainted with SEE and the tools developed for SEE in primary and lower secondary education. Participants explore, by means of various hands-on activities, these tools for SEE. They discuss and reflect on the design, usability and content of the tools in the context of SEE and are welcomed to formulate suggestions for further development of the tools.

How to become changemakers? Tools for Social Entrepreneurship Education

Presenting Author:Marijke van Voorthuysen, Marnix Academie (PABO), Netherlands; **Co-Author:**Jans Koene, Marnix Academie (PABO), Netherlands; **Co-Author:**Eva Kuijpers, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Stella van der Wal-Maris, Marnix Academie (PABO), Netherlands

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Awarding Ceremony & Keynote 1

28 November 2024 14:00 - 15:30
Restaurant (PXL NeXT Building D)
Keynote

Agency and engagement in assessment in a time of AI

Keywords: Artificial Intelligence, Assessment and evaluation, Innovations in Education, Well-being & Engagement

Interest group:

For good reason, generative AI has focused minds among educators on academic integrity. The pace of developments and widespread access to large language models (LLMs) has led many to retreat into old ways of assessing students in exam halls, in the interests of security. This talk argues that generative AI is a huge opportunity for fresh thinking about the purpose and practice of assessment and feedback. Drawing on evidence from TESTA, it critiques the dominant grammar of assessment and feedback, in which students often feel assessment is done *to* them. In rushing to complete assessments, they often fail to see their wider purpose and relevance, or to find space and time to shape, own, or take pride in their work. Students describe struggling to see connections between assessment tasks across a programme of study, and they often do not trust feedback enough to act on it. Drawing on theories of alienation and engagement, this interactive session will explore how we might design assessment and feedback across programmes to enable students to exercise their agency, play to their strengths, become more curious, deepen their understanding, and surprisingly, have more fun.

Agency and engagement in assessment in a time of AI

Presenting Author: Tansy Jessop, University of Bristol, United Kingdom

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