

Opening Ceremony & Keynote Speech 1

22 November 2023 08:30 - 09:45

Assembly Hall

Keynote

The role of shared education in a society transitioning from conflict

Keywords: Collaborative Learning, Cooperative Learning, Culture and Education, Multiculturalism in Education

Interest group:

Chairperson: Nicholas Gee, Birmingham City University, United Kingdom

Contact, connection and collaboration: The role of shared education in a society transitioning from conflict.

The Belfast/Good Friday Agreement in 1998 signaled the end of more than three decades of conflict in Northern Ireland. Some 25 years on society remains divided and this is mirrored especially in the education system where the majority of young people continue to attend schools that are characterised by ethno/religious separation. Seeking to capitalise on the role that schools can play in promoting social cohesion, and underpinned by contact theory, a Shared Education initiative was piloted by Queen's University in 2007. The approach promotes collaboration between schools from different sectors as a vehicle for improving educational opportunity for all children and building intergroup relations. Shared education has had significant impact in a relatively short time period, with the majority of schools in NI participating and an associated legislative and policy framework now in place. The approach has also attracted interest from other divided jurisdictions and shared education projects based on the NI model have been trialled in Israel and countries in southeast Europe. This presentation examines the evidence for shared education and explores its unique contribution to promoting social cohesion in a society still recovering from conflict.

The role of shared education in a society transitioning from conflict

Presenting Author: Joanne Hughes, Queen's University Belfast, United Kingdom

Contact, connection and collaboration: The role of shared education in a society transitioning from conflict.

The Belfast/Good Friday Agreement in 1998 signaled the end of more than three decades of conflict in Northern Ireland. Some 25 years on society remains divided and this is mirrored especially in the education system where the majority of young people continue to attend schools that are characterised by ethno/religious separation. Seeking to capitalise on the role that schools can play in promoting social cohesion, and underpinned by contact theory, a Shared Education initiative was piloted by Queen's University in 2007. The approach promotes collaboration between schools from different sectors as a vehicle for improving educational opportunity for all children and building intergroup relations. Shared education has had significant impact in a relatively short time period, with the majority of schools in NI participating and an associated legislative and policy framework now in place. The approach has also attracted interest from other divided jurisdictions and shared education projects based on the NI model have been trialled in Israel and countries in southeast Europe. This presentation examines the evidence for shared education and explores its unique contribution to promoting social cohesion in a society still recovering from conflict.

Session A 1

22 November 2023 10:15 - 11:45

Meeting Room 4

Present & Discuss

Primary education, Secondary education

Motivation in Primary & Secondary Education

Keywords: 21st Century Learning, Collaborative Learning, Educational Attainment & Achievement, Educational Effectiveness and Quality of Education, Game-based Learning / Gamification, Instructional Design and Instructional Strategies, Language Education, Motivation, Secondary School Education, Self-efficacy, Statistics, Well-being & Engagement

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

Chairperson: Riikka Michelsson, Jyväskylä University of Applied Sciences, Teacher Education College, Finland

Collaborations between Students: Motivation and Personal Responsibility for Learning

Keywords: 21st Century Learning, Collaborative Learning, Instructional Design and Instructional Strategies, Motivation

Presenting Author: Irit Sasson, Tel-Hai College, Israel; **Co-Author:** Itamar Yehuda, Tel-Hai Academic College, Israel

This study examined an application of the constructivist learning approach in new learning spaces designed to promote collaborative learning among high-school students. The quasi-experiment, conducted in a single high-school for two-years, compared traditional classes and those in which the innovative educational program was implemented. First, the design practices were characterized by 141 class observations and student self-reporting attitudes questionnaires. The relationship between the new pedagogical design and two learning dispositions- motivation and responsibility for learning, was then examined. The program's success is seen, particularly, in the building of a learning community in which students learn from one another, and in achieving an active learning environment through redesign of the learning space. The research findings indicate a significant advantage for the students of the innovative learning space in intrinsic motivation in the two years of the study and an advantage in personal responsibility for learning in the second year of the study, when the students were in the 10th grade. The study emphasizes the importance and the contribution of a research method using a variety of tools for evidence-based education.

Motivation and attainment: an overview of research

Keywords: Educational Attainment & Achievement, Educational Effectiveness and Quality of Education, Motivation, Statistics

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

The importance of motivation has long been a contentious topic in education. While the existence of a correlation between the two is established, there is discussion, not least among practitioners, of the causal direction of the relationship and therefore whether schools need to focus primarily on approaches to improve motivation or on approaches to improve attainment. In this study we used a systematic literature review approach to look at recent evidence on this relationship. Findings suggest that the relationship is clearly reciprocal, and while in primary the impact of attainment on motivation tends to be stronger than vice versa, this is no longer true in secondary. This suggests that schools need to take a dual-track approach, focusing on both attainment and motivation, in order to develop a positive cyclical effect.

The Effect Size of Playing with Google Dinosaur on Test Results amongst Primary School Students

Keywords: Game-based Learning / Gamification, Motivation, Self-efficacy, Well-being & Engagement

Presenting Author: Kristóf Lakatos, University of Szeged, Hungary

Combining the Self-Determination Theory of motivation and the Specific Anxiety Theory of test anxiety may enhance well-being and engagement, and employ web-based 21st-century learning skills. Gamifying the anxious situation before an exam, playing with a virtual motivational game, test results could be increased (H1) by boosting basic psychological needs (H2), and lowering test anxiety through its aspects (H2, H3, H4), which predicts negatively the test results (H5). Assumptions were tested with 67 students from a Hungarian primary school divided into four groups, using Google Dinosaur game as a motivational intervention. CTAS measured test anxiety, BPNSFS measured motivation, and a 1-5 grading scale measured (real) test results. Results were increased by playing Google Dinosaur, $t(34) = 2.77, p$

The relationships among L2 motivation, willingness to communicate, and self-assessed proficiency.

Keywords: Language Education, Motivation, Secondary School Education, Self-efficacy

Presenting Author:Merih Welay, University of Szeged, Hungary; **Co-Author:**Marianne Nikolov, University of Pécs, Hungary, Hungary

This research aims to look at the links between the L2 motivational self-system (L2MSS), L2 willingness to communicate (L2WTC), and self-assessed competency of high school EFL students. In this quantitative survey, 609 12th-graders filled out the adapted L2MSS (Dörnyei, 2005), L2WTC inside (MacIntyre et al., 2001), and L2WTC outside the classroom. (Nagy, 2007) questionnaire. We designed an English proficiency assessment in the "can do" statements based on the Common European Framework of Reference (CEFR,2020) standards for basic users. The proposed model was developed and assessed using structural equation modeling (SEM). The mean score for the ideal L2 self and L2 learning experience was below average, while the mean for the ought-to L2 self was above average. The students' self-assessed English proficiency, as well as their L2WTC in and outside of class, were also low. The L2MSS components showed significant positive correlations with each other, with L2WTC in and out of the classroom, and with self-assessed proficiency. Except for the path from Ideal L2 self to L2WTC outside the classroom, the L2MSS components and self-assessed proficiency had a statistically significant positive impact on the dependent variables. These interrelationships are critically examined to enlighten English instructors, students, parents, curriculum designers, and researchers.

Session A 2

22 November 2023 10:15 - 11:45

Meeting Room 5

Present & Discuss

Early childhood education, Lifelong learning, Primary education

Cognitive Skills & Self-efficacy in Learning

Keywords: 21st Century Learning, Cognitive Skills & Development, Collaborative Learning, Cooperative Learning, Creativity, Early Childhood Education, Emotions and Emotional Development, Higher Education, Problem-based Learning, Self-efficacy, Self-regulation and Self-regulated Learning, Social Interaction, Technology Enhanced Learning

Interest group: CLOUD 04 - Improving learning and well-being, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 09 - Sounds & Arts in Transversal Learning

Chairperson: Rianne van der Feen, HZ University of Applied Sciences, Netherlands

Use-inspired empathy assessment and effects of training in K1-4 children

Keywords: Cognitive Skills & Development, Early Childhood Education, Emotions and Emotional Development, Social Interaction

Presenting Author:Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland; **Co-Author:**Kelly Sheehan, HEP Fribourg, Switzerland; **Co-Author:**Naomi Studer, HEP Fribourg, Switzerland

Empathy is an important skill that enables every person to put themselves in the perspective of others and understand their emotions. Particularly in the context of education, the development of empathy skills in children can be crucial to creating a positive social climate and promoting individual and social development. This study investigates the potential of shortened versions of validated scales. We adapted the German questionnaire "FEAS" to assess empathy and appropriate social behaviour and the empathy scale used in TIMSS 2007. Results indicate that short versions can be adopted by teachers to practically estimate empathy in very young children. Yet, more research is needed to rigorously validate the short scales. The short instruments may help teachers to initiate research on their own teaching, goal achievement and progress in class, and to get a quick impression of the status of their children in order to decide about the necessity of additional training. In this context we also want to discuss the relevance of empathy training in young children with the audience.

Using technology-focused learning to strengthen children's with SEN self-efficacy and cooperation

Keywords: 21st Century Learning, Cooperative Learning, Self-efficacy, Technology Enhanced Learning

Presenting Author:Juuso Pursiainen, University of eastern Finland Teacher Training School, Finland; **Presenting Author:**Sampo Forsström, The University of Eastern Finland, Finland; **Co-Author:**Katariina Räsänen, University of Eastern Finland, Finland

The purpose of this developmental research was to find out how students' self-efficacy and cooperation skills develop with the support of the digital exercises implemented during the research period (six months in the spring of 2023). The study consisted of the Finnish comprehensive school pupils (N = 18) with special educational needs. The data were collected by (1) observing, (2) the questionnaires distributed to pupils and teachers, (3) interviews conducted in an informal setting and (4) documenting. Data was analysed using descriptive qualitative methods. The findings and experiences of this study suggest students' experience of self-efficacy in the study group remained relatively high throughout the study period, despite the increase in the difficulty level of the digital exercise content. On average, the students felt that they were quite confident in their own abilities, which was influenced by the strong pedagogical support they received. The results gave the indications of the development of self-reliance and cooperation skills in different directions. This may indicate that a student who experiences strong self-efficacy does not feel that he/she needs such strong social support. The research provided information that can be used when developing future teaching practices and teacher training that utilize digital pedagogy.

Creative problem solving as a multilevel regulatory process in ill-defined problem-solving tasks

Keywords: Cognitive Skills & Development, Creativity, Problem-based Learning, Self-regulation and Self-regulated Learning

Presenting Author:Margarida Margarida Romero, Université Côte d'Azur, France

Creative problem solving (CPS) is a multifaceted, complex process that demands overcoming the constraints of general models of problem-solving. We first discuss the limitations of these models before starting to examine CPS as a process. We combine the level of CPS task regulation, the level of creative strategies (exploration/exploitation), and the phases (divergent/convergent) of the thinking modalities emerging during ill-defined problem-solving tasks in educational contexts to analyze the creative behavior regulation in CPS. In this study, we consider the dual-process model of creativity. This model takes into account that some processes—such as the exploratory process, which is implicit in the generation of ideas, as well as the tacit process that regulates their selection—can be consciously controlled during the divergent and convergent thinking stages.

Assessing Collaborative Problem-Solving Skills in Higher Education: Evidence from a Case Study

Keywords: 21st Century Learning, Cognitive Skills & Development, Collaborative Learning, Higher Education

Presenting Author:Anna Trikoili, Technical University of Munich, Germany; **Co-Author:**Despoina Georgiou, Utrecht University, Netherlands; **Co-Author:**Daniel Pittich, Technical University of Munich, Germany

Collaborative problem-solving (CPS) is a key competency for 21st-century learners and professionals. It relates to the way we think, learn, and work and draws upon cognitive and social domains. Collaborative problem-solving is widely acknowledged as an essential skill, but its evaluation has been mostly limited to large-scale international projects rather than everyday educational contexts. The current case study uses video observation to assess students' collaborative problem-solving skills in higher education. Participants are professionals in vocational education studying in a master's program who were video-recorded during group assignments. Two scorers independently assess the video recordings, utilizing Hesse's et al. (2015) assessment framework for collaborative problem-solving skills. In turn, students self-reflect on the video recordings using a survey. The preliminary results indicate that only one in every three students outperformed in participation, social regulation, and task regulation. When compared, the results from the students evaluating themselves and those from the independent scorers are similar in the cognitive aspects of CPS and differ in the social domains. Findings from this study may have implications for assessing competence development in small educational settings and improving teamwork in professional settings.

Session A 3

22 November 2023 10:15 - 11:45

Conference Room

Poster Presentation

Higher education, Lifelong learning

Collaborative Learning In Different Contexts

Keywords: 21st Century Learning, At-risk Students, Collaborative Learning, Culture and Education, Deep-level and Profound Learning, Diversity, Higher Education, Inclusivity, Innovations in Education, Knowledge Building and Development, Lifelong Learning, Peer Interaction / Learning, Professional Development, Professional identity, Workplace Learning, Writing

Interest group: CLOUD 02 - Educators' professional development, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 08 - Diversity & equality in different contexts

Chairperson: TOMONORI ICHIOSE, Japan

Collaboration in a learning community: A valuable opportunity to enrich nursing practice?

Keywords: Collaborative Learning, Lifelong Learning, Peer Interaction / Learning, Workplace Learning

Presenting Author:Wendy Heemskerck, Haga Teaching Hospital / LUMC - Health campus, Netherlands; **Co-Author:**Clarissa Jungerius, University of Applied Sciences Leiden, Netherlands; **Co-Author:**Christian Wallner, University of Applied Sciences Leiden, Netherlands; **Co-Author:**Jet Bussemaker, LUMC / Leiden University, Netherlands

Background: The Dutch education nursing profile suggests learning communities as suitable approach to create intensive collaborations. Examining how participating community members apply experiences and learning in their own practice may contribute to the relevant discussion of learning communities. Research question: According to members, what actions and behaviors are reflected in the nursing learning and working context from members' community participation? Method: A multiple case study approach was selected, in which three hospital learning communities participated during academic year 2019-2020. Main data were collected through group and individual interviews, and analyzed using a hybrid approach of thematic analysis. Results: The results will clarify the translation of community participation to application in the nursing learning and working context. Data analysis is currently being finalized and results are expected to be presented at the conference. Conclusions: We will build on our previous two studies and provide insight into how practice has changed in leveraging knowledge capital; also defined as *applied value* by Wenger and colleagues in 2011. Implications: With this poster we will contribute to the main focus of the conference by showing the opportunities of a community collaboration of registered nurses, nursing students and lecturers that can enrich nursing in practice.

The delayed track: collaboration for inclusive education

Keywords: 21st Century Learning, At-risk Students, Collaborative Learning, Deep-level and Profound Learning

Presenting Author:jan Waalkens, Stenden hogeschool, Netherlands; **Co-Author:**Jacqueline Rietveld, NHLStenden University of Applied Sciences, Netherlands

General abstract This research project focuses on the significant challenge faced by higher education institutions in addressing study delays exceeding six years. Study delay is a critical issue as it may result in financial burdens for students, missed opportunities in the job market, and additional costs for educational institutions. Moreover, it impacts the mental well-being of students, leading to increased stress and anxiety. To address this issue, this study employed an action research methodology to develop and evaluate an effective working method for a diverse group of delayed students who share the common goal of obtaining their degree. Our findings suggest that a combination of individual and group coaching, in collaboration with coaches, tutors, and instructors, is a potent intervention for organizing intensive bootcamps for delayed students. These bootcamps can help students regain their focus on graduating and achieve their desired diploma.

Inclusive tourism as business generator

Keywords: Collaborative Learning, Diversity, Inclusivity, Knowledge Building and Development

Presenting Author:Nele Bylois, University college PXL, Belgium

Despite the increasing attention for inclusive tourism, from both a social and economic perspective, the actual implementation remains a challenge for many tourist accommodation providers. Here, we describe a 2-year project in which the possibilities of Universal design as a strategy were explored for the purpose of structurally uncovering and addressing potential business opportunities. Based on three 'building blocks' (i.e. an inclusive customer journey, a multi-level approach linking mindset, management en infrastructure and a focus on diverse user needs and personas) and in close collaboration with a group stakeholders, including 17 accommodation providers, we co-developed and executed a seven-step process to integrate and implement Universal Design in their business model. Results of the project are discussed as how the applied methodology can act as a catalyst to increase knowledge and understanding of how diverse guests experience their travel journey and how this knowledge can be used to address inclusive business opportunities in practice, rendering tourist accommodations more economically and socially sustainable and more welcome to all.

No scholar is an island: Building bridges by writing together across disciplines

Keywords: Collaborative Learning, Knowledge Building and Development, Professional Development, Writing

Presenting Author:Eva Hornung, CDETB Curriculum Development Unit/Trinity College Dublin, Ireland; **Co-Author:**Amanda Taylor-Beswick, University of Cumbria, United Kingdom

Co-authorships are common practice in many academic fields. Usually, they occur within a discipline, often as a result of other scholarly networking activities or as an extension of a teacher-student relationship (e.g. writing up a dissertation for publication). Occasionally, however, serendipity can create unexpected opportunities for fruitful collaboration. This poster will introduce an interdisciplinary writing project across two countries between two researchers, who are also practitioners in their respective fields (Social Work and Librarianship). The trigger was a perceived need for a handbook for postgraduate students on a specific research approach used in both disciplines. This process of collaborative creation and sharing, however, posed questions of knowledge boundaries and personal learning. Looking through an autoethnographic lens, we will reflect on some of the practical lessons learnt so far. The poster will conclude with some advice on potential pitfalls.

Turning Disciplinary Differences from a Brake into a Motor in Higher Education (Collaboration)

Keywords: Culture and Education, Higher Education, Innovations in Education, Professional identity

Presenting Author:Sabrina Schmöckel, University of Paderborn, Germany; **Presenting Author:**Hannah Sloane, University of Paderborn, Germany

We are developing two teaching innovations which examine (PhD and undergraduate) students' awareness of disciplinary cultures and if and how such awareness is intertwined with multidisciplinary collaboration and the development of a (discipline-specific) academic identity:

1. a workshop series aiming to improve the chances of higher education innovations being transferred into other disciplines,
2. an educational training in which advanced undergraduate students acquire strategies to improve understanding between students and teachers in their respective departments.

Within these practice contexts, we are conducting three sets of qualitative interviews (N=24) to answer two research questions:

1. "How can we increase PhD students' awareness of disciplinary cultures to improve multi-disciplinary collaboration and transfer?"
2. "How can we help students perceive, understand, and handle disciplinary differences by using a multidisciplinary training programme?"

Preliminary results of the biographical case reconstructions and the positioning analyses indicate that members of various disciplines perceive differences between each other but do not initially attribute these to disciplinary characteristics. However, as we provide the participants with opportunities to interact with each other and discuss their experiences these explanations start to shift towards expressing more discipline-specific explanations. This enables them to more effectively communicate with people of other disciplinary back-grounds.

Session A 4

22 November 2023 10:15 - 11:45

Meeting Room 7
Present & Discuss
Higher education

Collaborative Learning in Higher Education

Keywords: Assessment and evaluation, Collaborative Learning, Deep-level and Profound Learning, Higher Education, Initial Teacher Education (Pre-service), Innovations in Education, Organisational Learning, Physical Education, Practice-based Research (methodology), Professional Development, Professional identity

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 07 - Research impact on school development, CLOUD 10 - Education for Sustainability

Chairperson: Marcel van der Poel, Hanze University of Applied Sciences, Netherlands

Expedition Impossible?

Keywords: Collaborative Learning, Higher Education, Innovations in Education, Practice-based Research (methodology)

Presenting Author: Manon Joosten, Inholland University of Applied Sciences, Netherlands; **Co-Author:** Guido Stomppf, Inholland University of Applied Sciences, Netherlands; **Co-Author:** Nanda Deen, Inholland University of Applied Sciences, Netherlands

'No one knows what the future will hold' applies now more than ever, making curriculum (re)design an even more intense and complex process. The common linear approach to innovate curriculum, with a small task force, needs to make way for a collaborative and iterative approach. The research question is 'How can we leverage collective tacit knowledge of multiple stakeholders within the educational system during a collaborative, iterative curriculum design?' The case study is the 'expedition New Teachers Academy' at a Dutch Teacher Training Institution. The methods used: Design Inquiry and Participatory Action Research. Results are based on observations of 60+ team meetings and 4 large-scale events. Plus, interview data of 4 review sessions, monthly recap sessions, three communities of inquiries, and two expert sessions. The polarities in bold prevailed during the expedition: linear as opposed to iterative, outcome as opposed to process, outward as opposed to inward and cognitive as opposed to emotional. Designed interventions categorised as *membrane*, *appreciative perspective* and *show line* balanced the polarities and enabled teams to utilise their collective tacit knowledge to (re)design a future proof TTI curriculum. Large-scale multistakeholder iterative curriculum design is an expedition possible!... as long as all polarities are valued and incorporated.

Teaching social justice in physical education teacher education across the island of Ireland

Keywords: Collaborative Learning, Initial Teacher Education (Pre-service), Physical Education, Practice-based Research (methodology)

Presenting Author: Brigitte Moody, University of Limerick, Ireland; **Co-Author:** Paul McFlynn, Ulster University, United Kingdom; **Co-Author:** Dylan Scanlon, Deakin University, Australia

Teaching about and for social justice continues to be a challenge in (physical education) teacher education. This research explored two central questions: (1) In what ways can social justice enhance pre-service teachers (PSTs) and teacher educators' perspectives and experiences with respect to the reality of addressing social justice in schools across the island of Ireland? (2) What considerations need to be addressed in formalising a shared initial teacher education space to discuss and enact social justice in schools? This was an action research study, that gathered data and measured outcomes including: (i) the action research process, (ii) PST and teacher educators focus group interviews; (iii) teacher educator reflective diaries and recorded meetings; (iv) critical friend meetings between the teacher educators and advisory group. Participants learnt from each other about teacher education in each jurisdiction, highlighting similarities and differences across systems and consider how the experiences of others can inform their own practice. The project provided empirical data on experiences of sharing a social justice space across North Ireland and The Republic of Ireland. It led to capturing the teaching practice realities of striving to teach for social justice while theoretically developing a pedagogy for social justice.

Empowering Early Career Researchers

Keywords: Assessment and evaluation, Collaborative Learning, Deep-level and Profound Learning, Innovations in Education

Presenting Author: Lenka Kepkova, oikos International, France; **Co-Author:** Stefan T. Siegel, University of St.Gallen, Switzerland

This practice-based research examines the impacts of a nine-month international, interdisciplinary virtual leadership program for sustainability, focusing on early career researchers which was held in 2022. The study investigates the impacts of the program on the participants, in particular, the (1) development of key competencies for sustainable development (Brundiers et al., 2021; European Commission, 2022; Jordan, 2021) and (2) the strengths and weaknesses of the program itself. A mixed-method approach (Creswell & Plano, 2018), comprising formative surveys, semi-structured interviews, team evaluations, and joint strategy meetings, was employed to gain insights. Results indicate that participants further developed their competencies in self-awareness and reflection, listening, collaborative competency, and embodying sustainable values and agency: For instance, the program fostered collaboration through the co-creation of online sessions, self-led peer groups, and support for student projects. Two joint research collaborations were established during the 2022 edition. The findings suggest that the virtual leadership program has the potential to successfully develop essential competencies and to facilitate international and interdisciplinary collaborations for sustainable development among the participants. Informed by participant feedback, the program was refined for the 2023 edition. Further research is needed to evaluate the long-term impact on the participants in more detail.

Brokers: The Key to Intersectoral Collaboration in Learning Communities

Keywords: Collaborative Learning, Organisational Learning, Professional Development, Professional identity

Presenting Author: Nard van den Langenberg, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Derk Bransen, Fontys University of Applied Science, Netherlands

Ongoing societal changes require intersectoral collaboration and lifelong development. This increasingly takes place in learning communities in which organizations collaborate across borders on complex issues. Brokers play a crucial role in developing and ensuring the quality of these collaborations, which requires specific personal characteristics and competences. However, organizations often do not provide conscious support and/or development for brokers. In order to address the profile and challenges of brokers, the following research questions were formulated: 1) What skills do brokers apply in practice? 2) How do brokers describe the work they do? 3) What do brokers need to further develop in this role? A mixed-methods design is employed, combining a questionnaire, followed by focus group and reflective group sessions with brokers to deepen and explain the obtained results. This study has resulted in a detailed description of the role and fundamental skills. Recommendations and direction for further research are provided based on the challenges arising from the role's versatility, dependency of the individual taking on the role, as well as the context where the role is performed.

Session A 5

22 November 2023 10:15 - 11:45
Board Room
EAPRIL Cloud Spotlight Session

Practice-based Research Methodology: Roleplay on rigor, relevance and ethics

Keywords: Organisation of Educational Research, Practice-based Research (methodology), Research Cooperation Frameworks, Social Interaction

Interest group: CLOUD 11 - Practice-based Research Methodology

Since 2018 EAPRIL supports Cloud 11 practice-based research methodology, a network in which we try to find out how to achieve quality in practice-based research (PBR). We view PBR as arising from concrete issues of practice and which is conducted for, in or with that practice with the explicit aim to generate relevant knowledge that can be used to contribute to practice. According to the latest insights, the research should to this end be practically relevant, methodologically rigorous, and ethically acceptable. In our view, the possibilities and dilemmas of PBR become apparent when looked at through the bipyramid model in which the perspectives of practitioners and researchers are present and relevance, rigor and ethics are interconnected. This model we developed past

years with help of EAPRIL-participants. Each year we organize a spotlight session at EAPRIL in which we can learn more about the possibilities and dilemmas. In this years' session we will perform another roleplay with the use of our bipyramid model to let the participants experience perspective making and taking in PBR. We want to reflect on this roleplay by means of the boundary-crossings theory. The goal is to further develop our insights.

Practice-based Research Methodology: Roleplay on rigor, relevance and ethics

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

Since 2018 EAPRIL supports Cloud 11 practice-based research methodology, a network in which we try to find out how to achieve quality in practice-based research (PBR). We view PBR as arising from concrete issues of practice and which is conducted for, in or with that practice with the explicit aim to generate relevant knowledge that can be used to contribute to practice. According to the latest insights, the research should to this end be practically relevant, methodologically rigorous, and ethically acceptable. In our view, the possibilities and dilemmas of PBR become apparent when looked at through the bipyramid model in which the perspectives of practitioners and researchers are present and relevance, rigor and ethics are interconnected. This model we developed past years with help of EAPRIL-participants. Each year we organize a spotlight session at EAPRIL in which we can learn more about the possibilities and dilemmas. In this years' session we will perform another roleplay with the use of our bipyramid model to let the participants experience perspective making and taking in PBR. We want to reflect on this roleplay by means of the boundary-crossings theory. The goal is to further develop our insights.

Session A 6

22 November 2023 10:15 - 11:45

Minor Hall

EAPRIL Cloud Spotlight Session

Looking for the key concepts in teacher education

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

Interest group: CLOUD 01 - Teacher education

There is a lot going on in European teacher education. The most important developments/themes are: student teachers' professional (identity) development; student teachers agency; inquiry/research based learning in teacher education; and relation between teacher education institutes and workplace. These four interesting and challenging themes are formulated based on the content of presentations during the last three EAPRIL conference in Cloud 1. Two questions will be dealt with during the first part of the session. We ask ourselves if these are the main themes in teacher education at the moment and are we missing some important and meaningful themes? We also dig into the question 'how are these different themes related to each other, can we develop a frame work in which the five themes are integrated?'. In the second part of the session we deepen the different themes, organising smaller groups. Every group focusses on a theme. Based on the expertise of the participants, and combined with some scientific sources, they will search for a deeper understanding of the theme. Finally, the participants will be encouraged to find similar or inspiring practices which potentially can lead to (future) projects within this cloud.

Looking for the key concepts in teacher education

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

There is a lot going on in European teacher education. The most important developments/themes are: student teachers' professional (identity) development; student teachers agency; inquiry/research based learning in teacher education; and relation between teacher education institutes and workplace. These four interesting and challenging themes are formulated based on the content of presentations during the last three EAPRIL conference in Cloud 1. Two questions will be dealt with during the first part of the session. We ask ourselves if these are the main themes in teacher education at the moment and are we missing some important and meaningful themes? We also dig into the question 'how are these different themes related to each other, can we develop a frame work in which the five themes are integrated?'. In the second part of the session we deepen the different themes, organising smaller groups. Every group focusses on a theme. Based on the expertise of the participants, and combined with some scientific sources, they will search for a deeper understanding of the theme. Finally, the participants will be encouraged to find similar or inspiring practices which potentially can lead to (future) projects within this cloud.

Session A 7

22 November 2023 10:15 - 11:45

Concourse

Case study

Higher education

E-Learning In Higher Education

Keywords: 21st Century Learning, Blended Learning, Curricula, Game-based Learning / Gamification, Higher Education, Instructional Design and Instructional Strategies, Leadership Development, Learning / Teacher Management System, Motivation, Teaching Approaches

Interest group: 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: Pieter Seunke, Aeres University of Applied Sciences Wageningen, Netherlands

How should the e-learning development be organized in Vocational Teacher Education in Ethiopia

Keywords: Blended Learning, Higher Education, Leadership Development, Learning / Teacher Management System

Presenting Author:Anne Harmoinen, Centria University of Applied Sciences, Finland; **Co-Author:**Pekka Makkonen, Centria University of Applied Sciences, Finland; **Co-Author:**Ilona Laakkonen, Jyväskylä University of Applied Sciences, Teacher Education College, Finland; **Co-Author:**Matiyas Teshome, Addis Ababa Technical and Vocational Training Institute, Ethiopia

In MOPEDE (Modernizing TVET Pedagogy in Ethiopia) project sustainable pedagogical change in vocational teacher education has been jointly created in partnership of two Finnish and one Ethiopian higher education institute. This paper focuses on the managerial and leadership aspects of pedagogical development. During the first half of the project, the focus has been on managing change. Data from managers was collected using multiple methods throughout the collaboration, and the results indicate the need for collegial support and sharing of expertise, and practice as key to creating change. Now, the focus is shifting towards sustainability and quality of pedagogical and blended learning practices to ensure continuous pedagogical development. The data was collected in a series of workshops organized in Addis Ababa in May 2023. The workshops focused on the guidelines and measures for ensuring e-learning quality; organizing and structuring education; and creating management practices and culture. In our presentation, we highlight the key findings from this stage by using taxonomy presented by Sprague and Watson (1993). This taxonomy was a useful way to motivate personnel as it clearly identifies hierarchy, time management and personnel involved in the planning, building, launching, and maintaining the blended- and e-learning process.

Gamification - how to engage students Social Work in their learning process

Keywords: Game-based Learning / Gamification, Higher Education, Motivation, Teaching Approaches

Presenting Author:Marleen Keus, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Melissa van der Heijden, The Hague University of Applied Sciences, Netherlands

In recent years higher education has increasingly embraced gamification to enhance student learning. This has also been employed in a Social Work program

by implementing an online game, the metagame, in a first-year course. In this case study, lecturers and students participated in focus group interviews about their experiences with the metagame. Lecturers and students have a different perspective on playing the game. Lecturers mainly monitor students' progress in the game. While students indicate they are waiting for feedback and application in class. The lack of task-oriented feedback when using the metagame in the lesson series resulted in uncertainty among students. The conclusion is that "in-time" task-oriented feedback is the most important component for students to actively participate in education, and thus games in education. These, and other lessons-learned were incorporated into a training course propaedeutic students, using playful learning: a variety of learning activities, in-time feedback and self-direction. Students appreciated the variety of active learning methods during the training, recognized different forms of feedback and were enthusiastic about the possibility of making their own choices in their learning process.

Enhancing Student Learning through Collaborative ePortfolio Development

Keywords: 21st Century Learning, Curricula, Higher Education, Instructional Design and Instructional Strategies

Presenting Author: Elizabeth Sollberger, HES-SO Valais-Wallis, Switzerland; **Co-Author:** Beverley Todeschini, HES-SO Valais-Wallis / University of Applied Sciences & Arts of Western Switzerland, Switzerland

With a focus on skills related to the design, development and implementation of a new curriculum for a bachelor's degree program in tourism, the aim was to find a way for faculty to assess student progress in a cross-curricular collaborative methodology, with interlinked and co-taught modules. The challenge for teachers to become collaborative partners on a digital platform to track and validate skills required a new pedagogical approach. Management formed a core team comprised of key faculty members experienced in ePortfolio practice, IT specialists and a project manager. The core team carried out a six-month pilot phase exploring the affordances of the platform with a positive student/faculty reaction. The use of ePortfolios was disseminated through faculty presentations, workshops, and pedagogical and technical support. Today, students construct their ePortfolios through group coaching, following learning pathways, and submitting assignments on the LTI connected to the LMS throughout their studies. Students have reported that the ePortfolio program helped them develop a deeper understanding of course content, connect learning to real-world contexts, to take ownership of their learning and build their professional networks. Confidence has grown considerably amongst faculty members, allowing for the expansion of ePortfolios across the curriculum.

Session A 8

22 November 2023 10:15 - 11:45

Meeting Room 6

Present & Discuss

Lifelong learning, Secondary education

Beliefs And Concepts Of Teaching

Keywords: Assessment and evaluation, Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Collaborative Learning, Educational Effectiveness and Quality of Education, Initial Teacher Education (Pre-service), Innovations in Education, Learning and Neuroscience, Practice-based Research (methodology), Professional identity, Teacher Thinking, Training and Development

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 10 - Assessment & Evaluation, CLOUD 13 - Starting Researchers

Chairperson: Kathinka van Doesum, Netherlands

In-Service and Pre-Service Teacher's Understanding of Neuromyths

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Educational Effectiveness and Quality of Education, Learning and Neuroscience

Presenting Author: Verena Novak-Geiger, University of Klagenfurt, Austria; **Co-Author:** Vesna Kucher, University of Klagenfurt, Austria

Neuromyths (NM) have been investigated intensively and are believed within the educational field worldwide and certain misconceptions are most prevalent. Although some claim that misconceptions are not relevant, others argue that they affect "the quality of education" (Ferrero et al., 2020, p.2). Several approaches to refute myths have been made but training in education or neuroscience results only in a decrease but not a removal of NM. Surveys show a higher intuitive thinking style in relation to the belief in neuromyths and the confirmation bias is argued as a reason for the persistence of certain NM. The present study uses a sequential mixed methods approach and aims for a systematic attempt to explain the understanding, application, and persistence of misconceptions among teachers. Therefore, pre-service and in-service teachers are questioned through a quantitative online questionnaire and guided interviews on their understanding of the two most prevalent NM, their application in the classroom, intuitive thinking style, and confirmation bias. The study is being carried out in the summer term 2023 and the results will be presented at the conference.

Forming a network of design teams to strengthen future teachers' change-competence

Keywords: Beliefs and Conceptions of Teaching, Initial Teacher Education (Pre-service), Innovations in Education, Professional identity

Presenting Author: Leen Alaerts, UC Leuven-Limburg, Belgium; **Presenting Author:** Anne Decelle, UC Leuven-Limburg, Belgium; **Co-Author:** tinne van camp, UCLL, Belgium; **Co-Author:** Ruth Wouters, UCLL, Belgium

In several countries the existing system of secondary education is challenged by a new grammar of schooling. As a result of this tendency a variety in educational practices, school-types and experiments emerged. These circumstances evoke teacher educators to reflect on the question: how can teacher education programs train change-competent professionals in a changing educational field? In order to address this research question this Practical Research Project (PWO Leermodern, 2022-2024) established a network of 11 Flemish University Colleges, that engaged themselves for two major research actions. Firstly, we conducted a needs analysis, consisting of a mapping of the current situation within teacher education; a survey amongst 500 new graduates and in-depth interviews with 15 school leaders. Building further on this analysis a network of 8 design teams, each consisting of 6-8 teacher educators, worked together with the aim of ameliorating their educational program on a specific component of change-competence: (1) professional self-understanding; (2) insight in grammar of schooling; (3) interdisciplinary competences. In this session the results of the needs analysis will be presented as well as the most inspiring interventions from the design teams. Thereby the researchers wish to engage participating teacher educators to share their own experiences and practices.

Cross-cultural adaption of the Epistemological Beliefs Questionnaire: A Brazilian Portuguese version

Keywords: Assessment and evaluation, Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Teacher Thinking

Presenting Author: Sara Pimenta, University of Szeged, Hungary; **Co-Author:** Edit Katalin Molnár, University of Szeged, Hungary

Teachers' epistemological beliefs have been pointed out as indicators of their actions and decision making in the classroom. They are also correlated with student outcomes. However, little is known about teachers' beliefs in non-Anglo-Saxon countries due to the scarcity of appropriate instruments. With the intention of making a reliable quantitative instrument available to assess Brazilian teachers' beliefs, this paper describes the cross-cultural adaptation process of Epistemological Beliefs Questionnaire by Conley et al. from English to Portuguese. Regarding the validity of the instrument, a committee of experts was established to translate and assess the questionnaire. To ensure the reliability of the instrument, a pilot study was conducted with a group of in-service science teachers (N=86). The data were analyzed using SPSS.25. The instrument was confirmed to present content validity by the experts and to have good reliability.

Transformative learning in collaborative teams designing technology enhanced learning arrangements

Keywords: Beliefs and Conceptions of Learning, Collaborative Learning, Practice-based Research (methodology), Training and Development

Presenting Author: Nieske Coetsier, Hogeschool van Arnhem en Nijmegen/HAN University, Netherlands; **Co-Author:** Madeleine Hulsen, HAN University of Applied Sciences, Netherlands; **Co-Author:** Daphne Ariaens, Hogeschool van Arnhem en Nijmegen/HAN University, Netherlands

This study focuses on the question how transformative learning can be stimulated through digital peer supervision and coaching in the context of multidisciplinary design teams. A design team is a collaboration between teachers, researchers, process facilitators, ICT experts, educational and practical experts and students. The aim is to develop innovative, technology enhanced learning arrangements. Key ingredients in the design team approach are practice-

based, evidence-informed research and cross-boundary and transformative learning. Design team members are guided by researcher and process facilitator. To adequately equip the researcher and process facilitator for their respective roles in the design team, they follow a blended learning track, which includes peer supervision and coaching sessions in which cases and dilemmas are discussed. A qualitative analysis shows that the dilemmas with respect to transformational learning faced by both groups of participants can be classified into a number of categories. In this session we will discuss the results in the context of transformational learning in multidisciplinary design teams.

Session A 9

22 November 2023 10:15 - 11:45

Meeting Room 1

Workshop

Higher education

Towards sustainable innovations in education

Keywords: Innovations in Education, Organisational Learning, Professional Development, Team Learning

Interest group: CLOUD 05 - HRD & Workplace learning

Although a lot of time and money is invested in educational innovations, only a few innovations appear to be implemented sustainably. In addition it is observed that many innovations are implemented superficial or fade out over time (Fix et al., 2021). It is difficult to incorporate the innovative idea into teachers' routines. In addition, continuous innovation in education also requires certain qualities and skills from teachers. This is called innovative work behaviour (IWB). In my dissertation, a questionnaire is developed (Lambriex-Schmitz et al., 2020) to measure this sustainable innovative behaviour and is researched what the best conditions are to stimulate the innovative work behaviour of teachers (Lambriex-Schmitz, 2023). The first part of the workshop will be devoted to an introduction to the five different components of innovative work behaviour and discussion of the scores on the pre-completed online questionnaire. Subsequently, a number of scientific insights are shared that can stimulate innovative behaviour (Thurlings et al., 2015; Lambriex-Schmitz, 2023). Next, participants map out which actions they can take to increase their own innovative work behaviour and how to implement an existing innovation more sustainably. This can be done from the role of director, program manager, lecturer or education advisor.

Towards sustainable innovations in education

Presenting Author: Peggy Lambriex-Schmitz, Zuyd University of Applied Sciences, Netherlands; **Co-Author:** Marcel Van der Klink, Zuyd, University of Applied Sciences, Netherlands

Although a lot of time and money is invested in educational innovations, only a few innovations appear to be implemented sustainably. In addition it is observed that many innovations are implemented superficial or fade out over time (Fix et al., 2021). It is difficult to incorporate the innovative idea into teachers' routines. In addition, continuous innovation in education also requires certain qualities and skills from teachers. This is called innovative work behaviour (IWB). In my dissertation, a questionnaire is developed (Lambriex-Schmitz et al., 2020) to measure this sustainable innovative behaviour and is researched what the best conditions are to stimulate the innovative work behaviour of teachers (Lambriex-Schmitz, 2023). The first part of the workshop will be devoted to an introduction to the five different components of innovative work behaviour and discussion of the scores on the pre-completed online questionnaire. Subsequently, a number of scientific insights are shared that can stimulate innovative behaviour (Thurlings et al., 2015; Lambriex-Schmitz, 2023). Next, participants map out which actions they can take to increase their own innovative work behaviour and how to implement an existing innovation more sustainably. This can be done from the role of director, program manager, lecturer or education advisor.

Session B 1

22 November 2023 12:30 - 14:00

Conference Room

Poster Presentation

Higher education, Primary education, Vocational education

Educators' Professional Development

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Collaborative Learning, Continuing Professional Development in Teachers, Equality / Education for All, Higher Education, In-service Teacher Training, Initial Teacher Education (Pre-service), Metacognition and Metacognitive Learning, Organisational Learning, Primary School Education, Professional Development, Professional identity, Professionalisation of Educators, STEM, Teacher Thinking, Teaching Approaches, Vocational Education, Work Environments

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 05 - HRD & Workplace learning, CLOUD 13 - Starting Researchers

Chairperson: Alfred Steinbach, Switzerland

Teacher turnover: The stories of novice teachers who left campus

Keywords: Higher Education, In-service Teacher Training, Professional Development, Work Environments

Presenting Author: Marcel Van der Klink, Zuyd, University of Applied Sciences, Netherlands; **Co-Author:** Erik Canisius, Zuyd University of Applied Sciences, Netherlands; **Co-Author:** Miriam Goes-Daniels, Zuyd University of Applied Sciences, Netherlands

Teacher turnover: The stories of novice teachers who left campus Universities face that 19–51% of their novice teachers leave the profession after three years of teaching. This study addresses the following research question: What causes novice teachers employed at universities of applied sciences to voluntarily terminate their employment contracts? The study is grounded in theories on employee turnover and research on teachers' induction in higher education. Interviews were conducted with 15 novice teachers from one university of applied sciences who left their jobs voluntarily within three years of beginning to teach. The findings provide detailed insights into the factors (and the interrelatedness thereof) that were responsible for the teachers' decision to leave the university. These teachers' accounts revealed a lack of clarity about their duties and tasks, high levels of work pressure, a lack of support for becoming acquainted with procedures, tools and systems, and an absence of appreciation and support for their efforts. Several interviewees stated: 'I felt like I was thrown to the wolves'. The data collected in this study deepens existing theoretical insights into what novice teachers actually experience during their induction and the causes that lead to their decision to leave academia.

Differentiated science and technology education: Pre-service teachers' professional development

Keywords: Initial Teacher Education (Pre-service), Professional Development, STEM, Teaching Approaches

Presenting Author: Tessa Slim, Hogeschool IPABO Amsterdam/Alkmaar / Vrije Universiteit Amsterdam, Netherlands; **Co-Author:** Johanna van Schaik, Radboud University, Netherlands; **Co-Author:** Anna Hotze, Hogeschool IPABO Amsterdam/Alkmaar, Netherlands; **Co-Author:** Maartje Raijmakers, University of Amsterdam, Netherlands

The current study explored the effects of a pre-service teachers' professional development program (PDP) for teaching differentiated primary science and technology (S&T) education. The knowledge, practice, attitude, and beliefs of nine pre-service teachers were measured with a self-report questionnaire (pre- and post) and reflective logbooks, through an embedded single-case study design. Semi-structured interviews and classroom-observations of three pre-service teachers were used as embedded units of analysis. The PDP consisted of seven 2-hour meetings, utilizing core features of professional development such as active learning and content focus. Two S&T-lessons, with a focus on supporting high-achieving students and students with reading difficulties, were enacted by the pre-service teachers' in their field-based internship and evaluated during the PDP. Results showed changes in pre-service teachers' knowledge, practice, and self-efficacy. The difficulties experienced by the pre-service teachers were assessing educational needs, setting and evaluating (differentiated) learning

objectives, and providing support for (high-achieving) students' reasoning processes. Pre-service teachers' beliefs regarding adverse effects of additional instruction groups and students' readiness for enrichment seem to influence implementation of DI practices. These findings provide detailed insights into how teachers can be better prepared in meeting the needs of all students in S&T-education.

Differentiation decisions of primary education teachers

Keywords: Equality / Education for All, Primary School Education, Professionalisation of Educators, Teacher Thinking

Presenting Author: Mirjam Heemskerk - van der Sprong, Leiden University / The Hague University of Applied Sciences, Netherlands

Teachers differentiate to meet the educational needs of all students through variation in learning objectives and learning activities. Teachers make differentiation decisions based on their knowledge of the student that they mainly obtain from (test)reports and their own observations. The student itself is an important source of knowledge that is often overlooked. First, this research focuses on which sources of information teachers use to make differentiation decisions, for what purpose, when and to what extent in the different phases of the differentiation process. The second focus of this study concerns the effects of involving students in differentiation decisions on students' cognitive and social-emotional development and their sense of agency, autonomy, relationship and competence. Knowledge is needed on whether involving the learner in differentiation decisions improves the educational opportunities for students. It is important that teachers are aware of providing appropriate education to all their students, regardless of their origin, place of residence, socio-economic status or culture. Teachers should have a great self-reflective capacity in order to be able to make differentiation decisions as consciously as possible. Involving the student in this process gives the student a voice and contributes to the subjectification of the student.

Successful role deployment of experienced brokers in learning communities

Keywords: Collaborative Learning, Organisational Learning, Professional Development, Professional identity

Presenting Author: Nard van den Langenberg, Fontys University of Applied Sciences, Netherlands; **Presenting Author:** Tjerk Riemers, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Miranda Snoeren, Fontys University of Applied Sciences, Netherlands

Ongoing societal changes require intersectoral collaboration and lifelong development, which increasingly takes place in learning communities. Brokers are crucial in connecting organizations and strengthening collaborative learning, within learning communities. However, the versatile nature of the role, as well as personal and contextual factors can hinder its deployment. To anticipate and address these challenges, the following research question is formulated: How do experienced brokers facilitate learning and development, and foster collaboration and transformation in daily practice, and what characterizes their approach? This qualitative research uses the shadowing technique, which has been integrated into a learning assignment as part of an educational programme for professional development in brokerage. Participants shadow an experienced broker at one or multiple relevant moments. Resulting logs and transcripts of individual reflective presentations will be analysed using a critical-creative hermeneutic data analysis framework. This study will provide a description of factors that support brokerage in learning communities, related to the approach and personal characteristics that brokers utilize. The insights will support the validation, refinement and enrichment of the brokers' profile and can be translated and integrated into both the support and the professional development for brokers. Furthermore, strategies for coping with challenges in practice can be identified.

The complexity of the context and guidance in vocational training.

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Teacher Thinking, Vocational Education

Presenting Author: Anne-Margreet Pol, Windesheim university of applied sciences (Zwolle), Netherlands; **Presenting Author:** Suzanne Pinkster, Hogeschool Windesheim, Netherlands; **Co-Author:** Herma Jonker, Windesheim University of Applied Sciences, Netherlands

Vocational education always has to be actual. For teachers in vocational education, it's important to have knowledge of what's happening in the context of the professional field. Therefore, they have to cross the boundary between classroom and workplace. In our research we used the model for hybrid learning environments of Zitter, Hoeve and De Bruin (2016) two folded. First, from a teacher's perspective to make clear how he can integrate the different contexts. Second, from a teacher-educator's perspective to make clear how he can guide his student-teachers in this process. We found a difference between students and student-teachers who combine work and school and those who study full-time. Both groups need a different way of guidance by the teacher/teacher-educator and the coach of the workplace. We expanded the model of Zitter et al (2016), so it could be used for both groups of students. The next step was to make the model suitable for our teacher training program for vocational education. In our poster we visualize how complex the context of vocational training is. Our next step is to investigate how technology can be used for improving the guidance role of the teacher and the coach of the workplace.

Linking aspects of teacher's metacognitive abilities to metacognition levels in school-aged children

Keywords: Continuing Professional Development in Teachers, Metacognition and Metacognitive Learning, Primary School Education, Teacher Thinking

Presenting Author: Julia Mier, University of Warsaw, Poland

Teachers influence the way children learn. In many schooling systems during the early-years programme children are taught all subjects by one teacher for several years. Such a teacher can, potentially, have a life-long effect on students' learning strategies. For example, teachers who use diverse teaching strategies teach pupils to be more aware of different learning methods. While teachers who have better metacognitive knowledge of reading strategies teach pupils to develop better metacognitive knowledge in reading. Therefore, the question, whether a teacher's general metacognition level can impact students' general metacognition, was asked. A review of articles exploring the potential correlation is suggested here. The terms 'metacognition' AND 'teacher' were searched systematically on databases including Scopus and Web of Science. A preliminary search indicates very few articles measure metacognition in teachers and students simultaneously to find direct correlations. However, many articles look at either how metacognitive teaching strategies enhance metacognition in children or how high metacognition in teachers relates to effective teaching strategies. This suggests there may be a link between the level of metacognition in teachers and the level of metacognition their pupils have, however the direct relationship needs to be explored further.

Session B 2

22 November 2023 12:30 - 14:00

Meeting Room 4

Workshop

Secondary education

What is the teacher's role in the process of feedback? Interweaving internal and external feedback.

Keywords: Assessment and evaluation, Beliefs and Conceptions of Learning, Well-being & Engagement, Workplace Learning

Interest group: CLOUD 01 - Teacher education

This workshop addresses the feedback challenge which deals with the apparent difficulty in getting students to make effective use of the feedback they receive on their work. We will give guidance on how teachers in higher education and secondary colleges can redesign and manage effective feedback strategies. We will refer to the latest feedback on the topic and selected detailed case studies. Aims: 1. to support teachers in further developing their feedback practice; 2. to provide contextualised examples of successful innovative feedback designs; 3. to highlight the importance of teacher and student feedback literacy in developing productive feedback partnerships. Methodology: Introduction. We will address how we can begin to look at feedback differently and see new ways of making it relevant. Activities: Think Pair Share. 1. What do you currently do in your own practice to support students' use of feedback? 2. What makes feedback memorable? Does it fit with or challenge existing assumptions of the student? 3. Where does the teacher responsibility for students' use of feedback end and the student responsibility begin? 4. What do you see as the features of the feedback 'culture' in which you work? Round-up: Participants share their ideas on feedback strategies and their take-aways.

What is the teacher's role in the process of feedback? Interweaving internal and external feedback.

Presenting Author: Barbara Roosken, Fontys University of Applied Sciences, Netherlands

This workshop addresses the feedback challenge which deals with the apparent difficulty in getting students to make effective use of the feedback they receive

on their work. We will give guidance on how teachers in higher education and secondary colleges can redesign and manage effective feedback strategies. We will refer to the latest feedback on the topic and selected detailed case studies. Aims:1. to support teachers in further developing their feedback practice;2. to provide contextualised examples of successful innovative feedback designs;3. to highlight the importance of teacher and student feedback literacy in developing productive feedback partnerships. Methodology:Introduction. We will address how we can begin to look at feedback differently and see new ways of making it relevant. Activities:Think Pair Share.1. What do you currently do in your own practice to support students' use of feedback?2. What makes feedback memorable? Does it fit with or challenge existing assumptions of the student?3. Where does the teacher responsibility for students' use of feedback end and the student responsibility begin?4. What do you see as the features of the feedback 'culture' in which you work? Round-up: Participants share their ideas on feedback strategies and their take-aways.

Session B 3

22 November 2023 12:30 - 14:00

Concourse

Workshop

Lifelong learning

How video-based teacher coaching impacts teachers' practices and student achievement

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

Interest group: CLOUD 01 - Teacher education

Teacher attrition is in crisis, with record numbers of both experienced and early career teachers choosing to leave the profession (Education International, 2021). In the UK, one in three teachers leave the profession before they have even seen out five years (DfE, 2018). This creates many challenges for school leaders, who are struggling to recruit teachers (TES, 2022). Research tells us that what happens in the classroom makes the biggest impact on student outcomes (Hattie, 2003). Therefore, teacher professional development has never been more important and coaching and mentoring staff of all career stages is also vital (DfE, 2022). This workshop will explore the ways in which video can help coaches and mentors using the IRIS Connect platform and UnityPD tools, equipping those developing others with tangible takeaway strategies they can utilise to help teachers thrive, not just survive.

How video-based teacher coaching impacts teachers' practices and student achievement

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

Teacher attrition is in crisis, with record numbers of both experienced and early career teachers choosing to leave the profession (Education International, 2021). In the UK, one in three teachers leave the profession before they have even seen out five years (DfE, 2018). This creates many challenges for school leaders, who are struggling to recruit teachers (TES, 2022). Research tells us that what happens in the classroom makes the biggest impact on student outcomes (Hattie, 2003). Therefore, teacher professional development has never been more important and coaching and mentoring staff of all career stages is also vital (DfE, 2022). This workshop will explore the ways in which video can help coaches and mentors using the IRIS Connect platform and UnityPD tools, equipping those developing others with tangible takeaway strategies they can utilise to help teachers thrive, not just survive.

Session B 4

22 November 2023 12:30 - 14:00

Meeting Room 1

Workshop

Vocational education

Working apart together: Increase impact through well-thought-out cooperation

Keywords: Innovations in Education, Organisation of Educational Research, Practice-based Research (methodology), Vocational Education

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

Learning environments at the boundary of school and work are an important policy and research theme within Dutch secondary vocational education. Vocational Education institutes (VE) and the government are committed to developing and strengthening these types of learning environments. Four research groups at three VE institutes conduct practice-based research into the development and strengthening of these learning environments, using the same theoretical typology (Bouw et al., 2019; Akkerman & Bakker, 2011) and looking for proven approaches to strengthen them. To increase the local and national impact of our research, we are intensifying our collaboration. Despite using the same theory and comparable methods, local differences occur in our findings. Practice-based educational research is always context-specific: knowledge is developed in, with and about specific, local contexts. Nevertheless, research results from different contexts can reinforce each other and contribute to the evidential value of the research topic. Our collaboration provides an opportunity for further exploring how to generalize and use local knowledge on a broader scale and how to strengthen our collaboration for this purpose. During the workshop, we would like to explore the possibilities of strengthening the impact of our collaboration, in order to enhance the evidential value of our research.

Working apart together: Increase impact through well-thought-out cooperation

Presenting Author:Franck Blokhuis, MBO Amersfoort (Secondary Vocational Education and Training institute), Netherlands; **Presenting Author:**Jantje

Timmerman, HU University of Applied Sciences, Netherlands; **Co-Author:**Petra Poelmans, Scalda, Netherlands; **Co-Author:**Kathinka van Doesum, mboRijnland - Practoraat Research Lab, Netherlands; **Co-Author:**Marianne Wildeman, mboRijnland, Netherlands

Learning environments at the boundary of school and work are an important policy and research theme within Dutch secondary vocational education. Vocational Education institutes (VE) and the government are committed to developing and strengthening these types of learning environments. Four research groups at three VE institutes conduct practice-based research into the development and strengthening of these learning environments, using the same theoretical typology (Bouw et al., 2019; Akkerman & Bakker, 2011) and looking for proven approaches to strengthen them. To increase the local and national impact of our research, we are intensifying our collaboration. Despite using the same theory and comparable methods, local differences occur in our findings. Practice-based educational research is always context-specific: knowledge is developed in, with and about specific, local contexts. Nevertheless, research results from different contexts can reinforce each other and contribute to the evidential value of the research topic. Our collaboration provides an opportunity for further exploring how to generalize and use local knowledge on a broader scale and how to strengthen our collaboration for this purpose. During the workshop, we would like to explore the possibilities of strengthening the impact of our collaboration, in order to enhance the evidential value of our research.

Session B 5

22 November 2023 12:30 - 14:00

Meeting Room 3

Workshop

Primary education

Developing AI literacy for the Generation AI with the novel machine learning tool

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

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

In this interactive workshop, the participants are introduced to the web-based image classifier (explainable artificial intelligence tool) and the teaching materials for artificial intelligence (AI) education. Tool and the materials are the outcomes from the long-term Generation AI project about AI and children, and they are

tested in K-9 schools in Finland. The aim of the workshop is to develop teachers' and educators' AI literacy skills in teaching AI to their students. In the workshop, the participants work in pairs to explore how to use image classifier tool and design a simple application. The concrete experience of using the image classifier tool can deepen participants' understanding of abstract concepts of AI and its impact in daily life. Later the participants engage in discussion about applicability of the image classifier and the teaching materials in different educational contexts and different countries.

Developing AI literacy for the Generation AI with the novel machine learning tool

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

In this interactive workshop, the participants are introduced to the web-based image classifier (explainable artificial intelligence tool) and the teaching materials for artificial intelligence (AI) education. Tool and the materials are the outcomes from the long-term Generation AI project about AI and children, and they are tested in K-9 schools in Finland. The aim of the workshop is to develop teachers' and educators' AI literacy skills in teaching AI to their students. In the workshop, the participants work in pairs to explore how to use image classifier tool and design a simple application. The concrete experience of using the image classifier tool can deepen participants' understanding of abstract concepts of AI and its impact in daily life. Later the participants engage in discussion about applicability of the image classifier and the teaching materials in different educational contexts and different countries.

Session B 6

22 November 2023 12:30 - 14:00

Meeting Room 6

Present & Discuss

Higher education, Secondary education

Peer Interaction Learning

Keywords: 21st Century Learning, Blended Learning, Collaborative Learning, Higher Education, In-service Teacher Training, Innovations in Education, Medical & Health Education, Peer Interaction / Learning, Secondary School Education, Teaching Approaches, Team Learning

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 10 - Education for Sustainability

Chairperson: Rineke Keijzer, Rotterdam University of Applied Science, Netherlands

Shaping ESD as Social Entrepreneurship Education in an international programme for student teachers?

Keywords: Blended Learning, Higher Education, Innovations in Education, Peer Interaction / Learning

Presenting Author:Eva Kuijpers, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Andrea Bisanz, University College for Teacher Education Vienna/Krems, Austria; **Co-Author:**Elisabeth Fernbach, University College for Teacher Education Vienna/Krems, Austria; **Co-Author:**Sari Harmoinen, University of Oulu, Finland; **Co-Author:**Tamara Katschnig, University College for Teacher Education Vienna/Krems, Austria; **Co-Author:**S. J. Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands

The importance of Education for Sustainability (ESD) is increasingly being endorsed. One way of shaping ESD is Social Entrepreneurship Education (SEE). The core of SEE is developing new ideas and creating value in the field of sustainable development. In teacher education, SEE is addressed at the level of the student teachers and at the level of the pupils. Five Universities of Applied Science from The Netherlands, Finland, Austria, Czech Republic and Belgium developed the Blended Intensive Programme 'SEE-ing a Better World'. It aims to familiarize student teachers with the characteristics of SEE and its practical implementation in their teaching practices. A flanking research has been conducted in order to answer the following question: '*According to the students, what are key factors for an international learning programme in which student teachers develop SEE competences?*'. Online surveys were collected before and after the programme. Diaries were kept by students during the programme. Survey data have been analyzed by the use of SPSS; qualitative content analysis was used for analyzing the diaries. Preliminary results shows that students develop new insights and competences regarding SEE by learning in an international context and that communication, collaboration, critical thinking, creativity can be identified as key factors.

Characteristics of Talent Moments as experienced by in-service teachers in communities

Keywords: Collaborative Learning, Higher Education, In-service Teacher Training, Peer Interaction / Learning

Presenting Author:Marielle van den Hul Kuijten, Hanze University of Applied Sciences, Groningen; University of Groningen, Netherlands; **Co-Author:**Mayra Mascareño Lara, University of Groningen, Netherlands; **Co-Author:**Henderien Steenbeek, Hanze University of Of Applied Sciences, Netherlands; **Co-Author:**Jan-Willem Stribos, University of Groningen, Netherlands

The presented study aims to contribute to evidence-informed design principles for learning communities in higher education to enable the emergence of talent moments. These moments reflect a dynamic systems approach that views talent as a potential that emerges through interactions between individuals and their (social) context. This practice-based research analyzed 33 self-identified talent moments of 19 in-service teachers in an educational master's program using logbooks and interviews to answer the question what are the characteristics of talent moments as self-identified and described by members of Learning Communities in Higher Education? Talent moments were characterized by intense involvement, supportive interactions, and co-constructive knowledge creation, leading to new insights, improved reasoning, and self-efficacy. Understanding the characteristics of these moments can inform the design and facilitation of education that fosters talent emergence in all students. The Present & Discuss session aims to yield insights regarding the understanding of relevant design principles for learning communities in higher education.

Interprofessional simulation training, lived experiences of medicine and nursing students

Keywords: 21st Century Learning, Medical & Health Education, Peer Interaction / Learning, Team Learning

Presenting Author:Geert Van de Weyer, Karel De Grote University College, Belgium; **Presenting Author:**Kendra Geeraerts, Karel De Grote University College, Belgium; **Co-Author:**Deborah Hilderson, Karel De Grote University College, Belgium; **Co-Author:**Filip Haegdorens, University of Antwerp, Belgium; **Co-Author:**Katrien Bombeke, University of Antwerp, Belgium

Collaboration and teamwork in healthcare services is a prerequisite for high quality and safe care with a focus on individual patient needs and values. Many healthcare providers, such as nurses and physicians, do not get acquainted until after their educational program. High fidelity simulation is a useful method to provide interprofessional education for undergraduate medicine and nursing students with focus on non-technical skills based on the Crew Resource Management principles (CRM). This study explores the lived experiences of medicine and nursing students participating in interprofessional high fidelity simulation training. The following research questions are posed: RQ1. How do nursing and medicine students experience the interprofessional approach within high fidelity simulation training? RQ2. How can interprofessional high fidelity simulation training be optimized? Qualitative research methods based on focus groups are used. Results indicate that interprofessional high fidelity simulation training not only empowers collaboration between medicine and nursing students, but it also reinforces the adoption of various CRM principles. Several suggestions were made to increase the effectiveness of interprofessional high fidelity simulation training.

A climate for climate education: countering climate misinformation by reflecting about science

Keywords: 21st Century Learning, Peer Interaction / Learning, Secondary School Education, Teaching Approaches

Presenting Author:Leen Bisschop, Odisee University College, Belgium; **Co-Author:**Christel Balck, Odisee University College, Belgium; **Co-Author:**Laura Van den Broeck, Odisee University College, Belgium; **Co-Author:**Jelle De Schrijver, Antwerp University & Odisee university college, Belgium

How to make young people critical towards misinformation about climate change? Addressing this issue is often challenging for secondary school science teachers. A teaching method that stimulates the critical thinking skills of learners towards climate science by reflecting on the nature of science (NOS) is recommended, because an understanding of how scientific knowledge is obtained, plays a central role in learners' understanding of climate science. This kind of

knowledge can provide learners with instruments to expose climate misinformation. The aim of this study is to investigate how a teaching method helping students engage in dialogues about NOS in the context of climate education, might help them to reflect about climate misinformation. Deploying the Educational Design Research (EDR) model, we develop, implement, and evaluate different prototypes of the teaching method in several research cycles, together with a Professional Learning Community (PLC). The teaching method developed is promising in terms of stimulating reflection on climate misinformation by dialoguing about NOS. PLC-interviews indicate that the teaching method contributes to dialogue about science, through exercises that focus on interpretation, subjectivity, and empiricism. The approach poses some challenges, such as how to support teachers in creating a safe classroom environment and in moderating reflective dialogues.

Session B 7

22 November 2023 12:30 - 14:00

Meeting Room 5

EAPRIL Cloud Spotlight Session

Exploring awareness-based innovation: transforming present challenges into future possibilities

Keywords: Creativity, Innovations in Education, Social Interaction, Well-being & Engagement

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

Cloud 4 was created in 2016 in response to a call to evolve for the wellbeing of all. One way in which this can be done is through education as it indeed touches almost daily everyone of all ages the world throughout, and this in both formal and informal learning. In order to achieve this, however, education itself needs to evolve through profound renewal towards learner-centric, cocreative and innovation driven learning. We have seen in the past few years that we are all able to innovate quickly, efficiently and most often in collaboration with others. In this Spotlight session participants will explore, hands-on, in-depth innovation in education, the result of which will provide a starting point for change in their practice, of interest to all those involved.

Exploring awareness-based innovation: transforming present challenges into future possibilities

Presenting Author:Els Laenens, University of Antwerp, Belgium; **Presenting Author:**Zarina Charlesworth, University of Applied Sciences & Arts Western Switzerland // HES-SO, Switzerland

Cloud 4 was created in 2016 in response to a call to evolve for the wellbeing of all. One way in which this can be done is through education as it indeed touches almost daily everyone of all ages the world throughout, and this in both formal and informal learning. In order to achieve this, however, education itself needs to evolve through profound renewal towards learner-centric, cocreative and innovation driven learning. We have seen in the past few years that we are all able to innovate quickly, efficiently and most often in collaboration with others. In this Spotlight session participants will explore, hands-on, in-depth innovation in education, the result of which will provide a starting point for change in their practice, of interest to all those involved.

Session B 8

22 November 2023 12:30 - 14:00

Meeting Room 7

Case study

Higher education

Professionalisation Of Educators In Different Contexts

Keywords: Assessment and evaluation, Educational Effectiveness and Quality of Education, Higher Education, Interaction and Discourse in Education, Language Education, Multiculturalism in Education, Professionalisation of Educators

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

Chairperson: Tamme Spoelstra, Netherlands

From Paper to Digital: Transforming the UTQ portfolio process for educators' growth and success

Keywords: Assessment and evaluation, Educational Effectiveness and Quality of Education, Higher Education, Professionalisation of Educators

Presenting Author:Wendy Schouteden, Hasselt University, Belgium; **Co-Author:**Eline Sneyers, Hasselt University, Belgium

The University Teaching Qualification (UTQ) program at Hasselt University requires tenure track educators to obtain certification through a seven-module program. The program focuses on seven teaching roles. The success of the program can be attributed to its provision of customized growth opportunities for educators, the inclusion of external experts in thematic modules, and a holistic evaluation process. As part of this evaluation process, educators are required to create a growth portfolio to display their progress. However, there is also criticism on the growth portfolio. Some educators express a desire for more flexibility in shaping their portfolios as they find the process of developing written portfolios to be time-consuming. To address these challenges, we want to explore the possibilities of digital multimodal portfolios.

During the case study, the UTQ program's success factors and areas for improvement will be presented, followed by a discussion to gather insights and experiences from peers of other institutions. The discussion will focus on key questions, such as how to integrate a digital portfolio into the UTQ program, and how to assist educators in creating multimodal portfolios by developing various artefacts. The goal of the discussion is to create a more comprehensive and effective UTQ evaluation process.

Language awareness and multilingualism in teacher education: A case study

Keywords: Interaction and Discourse in Education, Language Education, Multiculturalism in Education, Professionalisation of Educators

Presenting Author:Annemieke de Jong, HAN University Nijmegen, Netherlands

Language awareness can be of great use in our education system and in our classrooms. When you are aware of the effects of your use of language, you can use language as an instrument. This is especially useful in a multicultural and multilingual context. If you not only choose your words wisely, but you also make a conscious decision in which languages can be used, you can open up a lot of new learning opportunities for a lot of students. In three different groups of student-teachers a workshop was given on the subject of language awareness and multilingualism in the classroom. The goal of this workshop was to improve the language awareness of the students and to inform the students about the possibilities of multilingualism in the classroom. During the workshop students explored what language means to them, and how they can use language as an instrument in the classroom.

The students' attitude towards language, language awareness and multilingualism was measured, as well as the possible effect on their use of language in the classroom. This was measured through questionnaires.

Session B 9

22 November 2023 12:30 - 14:00

Board Room

Roundtable

Secondary education, Workplace learning

Assesment And Evaluation in Different Contexts

Keywords: Assessment and evaluation, Competence-based Education, Educational Effectiveness and Quality of Education, Language Education, Professional Development, Professionalisation of Educators, Secondary School Education

Interest group: CLOUD 02 - Educators' professional development, CLOUD 10 - Assessment & Evaluation

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

Professional learning through assessment for/as learning

Keywords: Assessment and evaluation, Educational Effectiveness and Quality of Education, Professional Development, Professionalisation of Educators

Presenting Author: Linda Jakobs, HAN University of Applied Sciences (UAS), Netherlands

The concept of 'assessment for/as learning' is gaining importance as a transformative process for schools, especially to support teacher learning. However, the evaluation function of assessment, which optimizes the quality of education and fosters reflective action and learning for teachers and educational organizations, still receives little attention in literature. Dylan William has outlined the concept of formative assessment as a framework for supporting teacher and school organization learning but there is a gap in further research about this topic. This research proposal suggests exploring and elaborating on how assessment for/as learning can explicitly support teacher learning and the educational organization as a whole. The article proposes five research questions that explore the extent of teacher learning from assessment, theoretical and practical elaboration of the framework for professional learning and principles that support successful implementation of assessment for/as learning. Five sub-studies, including review of existing literature, observation in practice, development of theoretical models, design research, and pilot approaches, are suggested to answer the research questions. The article highlights the need for a new perspective on assessment where evidence from tests is seen as information for assessing teaching effectiveness and determining necessary changes in teaching practices, requiring a change in mindset.

Towards a Comprehensive Assessment & Reporting System for Language Education in Flanders

Keywords: Assessment and evaluation, Competence-based Education, Language Education, Secondary School Education

Presenting Author: Lien Fret, Karel de Grote Hogeschool, Belgium; **Co-Author:** Joelle Verelst, Karel de Grote Hogeschool, Belgium

The declining language proficiency of Flemish secondary school pupils in both Dutch and modern foreign languages is a significant problem that has been linked to the impact of the COVID-19 pandemic, the shortage of language teachers and the decreasing interest in Language Teacher Training Programs in Flanders (Belgium). The purpose of this study is to address this problem by exploring the most effective ways of assessing and reporting pupil progress in language education, making the learning process visible and guiding it through feedback. It takes into account the need to promote language acquisition and increase language enjoyment through assessment and the role of language learning strategies in this process. The study will use qualitative research methods including a literature review, a survey of secondary school language teachers, focus groups with those teachers and the Flemish Pedagogical Guidance and Inspection Services and case studies of schools with successful language programs. The study aims to contribute to the development of a comprehensive evaluation and reporting system for secondary language education that will promote pupil language proficiency and language learning enjoyment. This system will align with the requirements of educational authorities that oversee the Flemish quality of education.

Session B 10

22 November 2023 12:30 - 14:00

Minor Hall

Present & Discuss

Higher education, Primary education, Vocational education

Leadership In Education

Keywords: Assessment and evaluation, Initial Teacher Education (Pre-service), Innovations in Education, Knowledge Management for Teaching & Learning, Leadership Development, Leadership Styles, Organisational Learning, Primary School Education, Professional Development, Training and Development, Training of Young Researchers

Interest group: CLOUD 12 - Leadership in Education

Chairperson: Loes Wessum, Windesheim Zwolle, Netherlands

Harnessing distributed pedagogical leadership culture in pre-service teacher education

Keywords: Initial Teacher Education (Pre-service), Leadership Development, Leadership Styles, Training of Young Researchers

Presenting Author: Peter Ochieng Okiri, University of Szeged, Doctoral School of Education, Hungary; **Co-Author:** Mária Hercz, Eötvös Loránd University, Budapest, Hungary

Initial teacher preparation lays a firm foundation in the training of future teachers (Afalla & Fabelico, 2020) who can nurture the 21st-century learner's potential. Consequently, teacher leadership generates competencies that teachers need, and how influences learners' achievement (Brecht, 2022; J. Heikka et al., 2021). The study aimed at exploring how distributed pedagogical leadership culture is harnessed. The main research question: What is the perception of stakeholders on teacher leadership in a distributed pedagogical leadership culture? A case study design was employed in a public pre-service teacher training college in Kenya. A purposeful sampling strategy was used to identify the 32 participants, consisting of the principal, deputy principal, and tutors. Content analysis of the qualitative data was employed to analyze the data collected using semi-structured interviews inquiry and focus group discussions with the administrators and teacher educators was analyzed using *Atlas.ti 9* software. The findings revealed that leadership culture was largely perceived to be a delegation of responsibilities between teachers and students. However, the principal and the senior management team were largely involved in the decision-making and enactment of leadership roles. The study recommended further exploration of the need to encourage teachers to participate in leadership that can motivate future teacher leaders.

School boards' views on innovative teacher behaviour and their role regarding this behaviour

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

Presenting Author: Arjan Dorst, Open University of the Netherlands, Netherlands; **Co-Author:** Arnoud Evers, Open Universiteit, Netherlands

Quality of education is one of the main responsibilities of school boards of Dutch primary schools. Innovative teacher behaviour (ITB) enhances quality of education. What are school boards' views on ITB and do they see a role for themselves regarding ITB? Data from 20 semi-structured interviews with school boards and headteachers were analysed using ATLAS.ti as a coding system. Results show that in the school boards' views ITB is related to organisational and professional development, improvement of education, and has to do with teaching differently from the traditional used didactic approach. School boards do see an indirect role for themselves regarding ITB which is expressed in a transformational leadership style in which the school board promotes ITB by stimulating and inspiring (head)teachers. A direct role is only recognized in being a role model. In addition it is concluded that school boards think that teachers need space to show ITB, headteachers are important for ITB and there is a link between ITB and quality of education.

Critical realism for building bridges

Keywords: Leadership Development, Organisational Learning, Professional Development, Training and Development

Presenting Author: Anthony Thorpe, University of Roehampton, United Kingdom

In response to the practical crisis in educational leadership that has left many sceptical of the 'leadership industry's' failure to deliver social justice, this practice-based research project draws on the theoretical background of critical realism for building bridges in day-to-day educational leadership. The research questions seek to identify the insights to the current problems of educational leadership that critical realism provides, and the ways that critical realism can offer practitioners, researchers and policy makers to promote social justice. The methodology adopted a qualitative approach with semi-structured interviews conducted with 40 senior leaders in state funded and independent schools in England. The research findings are that the role of leaders in both formal and informal roles is better practiced when drawing on the professional capital of colleagues in enabling networks and encourage practice, and that leaders should enable the 'imaginings' of education professionals through their daily practices. The main conclusions for educational practice include the need for forms of leadership development that help practitioners to be aware of how they might work with colleagues to practice in an authentic, holistic manner that promotes meaningful learning in all educational organizations.

How do program directors in higher education use their resources to enable innovation?

Keywords: Assessment and evaluation, Innovations in Education, Knowledge Management for Teaching & Learning, Professional Development

Presenting Author: Hans Frederik, Vrije Universiteit Amsterdam, Netherlands

Universities are the driving force behind innovation and knowledge development in today's Western European societies. However, academics need an incentive to actively realize knowledge sharing. Stimulating innovation and knowledge exchange are strongly influenced by the opportunities offered by the educational institution Programme directors (PDs) within a university are responsible for the organization and development of the educational programmes. They have become the central pivot in this, and they are responsible for optimizing the work processes and guaranteeing the quality of the graduates. In this study, we look at how PDs use their resources for innovation within their managerial frameworks in the educational organizations. Twenty-five directors were interviewed, spread over eleven educational institutions and seven educational sectors. Nine women and sixteen men, all with more than five years of experience in the management of a higher education institution. These PDs were interviewed with open-ended questions about their experiences as managers, their successes, and their failures over the past 4 to 5 years. In these interviews, attention was paid to topics such as innovation in education, the relationship with the professional field, and the possibilities and limitations that the university gave them as PDs.

Session C 1

22 November 2023 14:10 - 15:40

Meeting Room 1

Workshop

Higher education

Opportunities for self-regulated learning: setting up participatory design-research studies.

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

Interest group: CLOUD 02 - Educators' professional development

In Higher Education students are expected to behave as active self-regulated learners, however, many do not meet these expectations. Although, most teachers consider themselves responsible for the development of their students' self-regulated learning (SRL)- skills, few find themselves sufficiently capable. An important factor which obstructs the development of the students' SRL skills is the fact that the curriculum is often strongly teacher controlled and teachers lack sufficient knowledge of effective interventions to develop SRL. In this workshop we introduce a conceptual model for participatory design-research together with teachers to develop evidence-informed practices that support students' SRL- skills. Participants will be invited and activated to explore how to set-up participatory research-design studies which will yield ecological valid solutions to the teachers' dilemma.

Opportunities for self-regulated learning: setting up participatory design-research studies.

Presenting Author: J.B. van der Linden, HAN University of Applied Sciences / Maastricht University, Netherlands; **Presenting Author:** H.J.M. Stokhof, HAN University of Applied Sciences, Netherlands

In Higher Education students are expected to behave as active self-regulated learners, however, many do not meet these expectations. Although, most teachers consider themselves responsible for the development of their students' self-regulated learning (SRL)- skills, few find themselves sufficiently capable. An important factor which obstructs the development of the students' SRL skills is the fact that the curriculum is often strongly teacher controlled and teachers lack sufficient knowledge of effective interventions to develop SRL. In this workshop we introduce a conceptual model for participatory design-research together with teachers to develop evidence-informed practices that support students' SRL- skills. Participants will be invited and activated to explore how to set-up participatory research-design studies which will yield ecological valid solutions to the teachers' dilemma.

Session C 2

22 November 2023 14:10 - 15:40

Meeting Room 5

Workshop

Secondary education

The didactic contract revisited

Keywords: Beliefs and Conceptions of Teaching, Interaction and Discourse in Education, Teacher Thinking, Teaching Approaches

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

This workshop is about the didactic contract and a lot of things we do not know yet about this concept. Teachers and students, based on their educational experiences, do have similar ideas and expectations about what things should be like in a 'normal' educational situation. So far, so good, but what to do when a contract breach is committed due to an innovation? The usefulness and timeliness of the concept of 'didactic contract' could not be stronger. The aims of the workshop are multitudinous. They are to discuss the theoretical and practical relatedness of concepts like devolution, buy-in, or even the horizon of expectations. And how to operationalize the didactic contract for research aims? Real-life examples and cases from new qualitative, explorative research will be provided to animate and concretize the debate. Of course, we are also going to try to experience the didactic contract together during the workshop.

The didactic contract revisited

Presenting Author: Dorieke Swinkels-Veldt, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Rutger van de Sande, Fontys University of Applied Sciences, Netherlands

This workshop is about the didactic contract and a lot of things we do not know yet about this concept. Teachers and students, based on their educational experiences, do have similar ideas and expectations about what things should be like in a 'normal' educational situation. So far, so good, but what to do when a contract breach is committed due to an innovation? The usefulness and timeliness of the concept of 'didactic contract' could not be stronger. The aims of the workshop are multitudinous. They are to discuss the theoretical and practical relatedness of concepts like devolution, buy-in, or even the horizon of expectations. And how to operationalize the didactic contract for research aims? Real-life examples and cases from new qualitative, explorative research will be provided to animate and concretize the debate. Of course, we are also going to try to experience the didactic contract together during the workshop.

Session C 3

22 November 2023 14:10 - 15:40

Conference Room

Meet-up

Higher education, Lifelong learning, Secondary education

Meet-up 2023 session

Keywords: 21st Century Learning, Artificial Intelligence, Beliefs and Conceptions of Learning, Blended Learning, Cognitive Skills & Development, Creativity, Diversity, Equality / Education for All, Higher Education, Inclusivity, Innovations in Education, Internships, Metacognition and Metacognitive Learning, Motivation, Practice-based Research (methodology), Problem Solving, Project-based Learning, Research Cooperation Frameworks, Research-based Learning, Self-efficacy, Technology Enhanced Learning, Well-being & Engagement

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 07 - Research impact on school development, CLOUD 08 - Diversity & equality in different contexts, CLOUD 10 - Education for Sustainability

Supporting Teachers' Readiness to Include all Students in Higher Education

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

Presenting Author:Rianne van der Feen, HZ University of Applied Sciences, Netherlands; **Co-Author:**Martijn Leenknecht, HZ University of Applied Sciences, Netherlands; **Co-Author:**Alexander Minnaert, University of Groningen, Netherlands

Inequity in Higher Education (HE) is getting worldwide attention. Within Dutch HE, a lack of professional confidence in realizing inclusion (such as of students with support needs, or of talented students), is noticed. More research is needed in order to contribute to teachers' readiness (teachers feeling equipped and confident) for inclusion of the hard(est)-to-reach students. With our study we aim to contribute to the knowledge on and to the use of effective teacher strategies for inclusion. Accordingly, during the meet-up session we would like to explore the question: What constitutes teacher readiness for inclusion? The outcome will play a role in a larger Dutch study on how HE teachers' readiness for inclusion can be supported using readiness (self-)reflection.

Creative uses of artificial intelligence in education

Keywords: 21st Century Learning, Artificial Intelligence, Creativity, Problem Solving

Presenting Author:Margarida Margarida Romero, Université Côte d'Azur, France

The rapid advancement of artificial intelligence (AI) has brought significant challenges to the education and workforce skills required to take advantage of AI for human-AI collaboration. Lifelong learning in the AI era must support critical thinking and creativity to prepare citizens for the challenges that come with these technologies. Digital literacy, especially in critical, creative, and participatory approaches, can also help citizens demystify AI, develop an ethical requirement, and adopt an informed attitude to decide whether to use it in their personal, social, or professional lives. Computational thinking is essential for lifelong learners who want to understand AI basics (Lafuente Martínez et al., 2022). Computational thinking requires problem-solving, critical thinking, and decision-making to navigate AI. Computational thinking competency combines critical and creative thinking skills for comprehending AI and establishing human-AI collaboration in education.

This meet-up aims to reunite colleagues interested in research-based collaborations in the study of the creative uses of artificial intelligence (AI) in education. A multidisciplinary approach makes it possible to consider the perspectives of researchers in the learning sciences as well as those of computer sciences.

Teachers & technology: Blended student support in a flexible learning environment

Keywords: Blended Learning, Higher Education, Practice-based Research (methodology), Technology Enhanced Learning

Presenting Author:Suzan van Brussel, Avans University of Applied Sciences, Netherlands; **Co-Author:**Milou van Harsel, Avans University of Applied Sciences, Netherlands; **Co-Author:**Esther van der Stappen, Avans University of Applied Sciences, Netherlands; **Co-Author:**Jurjen Ophuis, Avans University of applied science, Netherlands; **Co-Author:**Richard Bakkers, Avans University of applied science, Netherlands; **Co-Author:**Johan Smarius, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Rinotha Senathirajah, Avans University of applied science, Netherlands; **Co-Author:**Theo Nelissen, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Irma Romme, Avans Hogeschool, Netherlands; **Co-Author:**Hans van der Heijden, Avans University of applied science, Netherlands

What is the optimal blend between teachers and technology to support students with all sorts of challenges in a flexible learning environment? In this meet-up, the research group Digital Education wants to explore collaboration on the following research question: Which design principles must a *blended* guidance arrangement meet in order to support students in a flexible learning environment? What objectives, learning outcomes, instruction, learning activities, support, facilities, and evaluation are important? What theories and models can be used for the design? What tooling is suitable for student support and how does that relate to personal contact? We will also study in which way technology can be used so that it adds value and thus enables students to develop e.g., optimally choice-making skills. For this, we design models and test prototypes of blended student support arrangements in flexible higher education with balanced interaction between human and technology. We want to further explore this theme with educational and technology experts. We already have a Dutch network of experts within the higher education domain and technology-enhanced education in the Netherlands, but we are also looking for (international) partners with whom we can collaborate on research projects or apply for funding. Let's meet up!

THE IMPACT OF METALINGUISTIC ORAL CORRECTIVE FEEDBACK ON STUDENT TEACHERS' SELF-EFFICACY

Keywords: Cognitive Skills & Development, Higher Education, Metacognition and Metacognitive Learning, Self-efficacy

Presenting Author:Eylül Balâ Altunay, Kocaeli University, Türkiye

Metalinguistic oral corrective feedback (MOCF) is one of the feedback types aiming to cause learners to utilize their cognitive abilities to comprehend their errors; therefore, it has a relation to the Cognitive Theory. Based on this perspective, MOCF provides learners with linguistic explanations related to their errors rather than providing the correct answer explicitly. Since learners are given a chance to comprehend the correct answers by prompting their working memory as well as finding out more detailed information about their error, their psychology can be affected. One of these psychological factors is self-efficacy, which is a combination of cognitive, social, and behavioral skills. As self-efficacy is an important feature of EFL teachers, this study aims to investigate the impact of MOCF on the self-efficacy of student teachers who study English Language Teaching at the Faculty of Education by focusing on three sub-aims which are student teachers' nation, gender, and grade. In this multiple case study, qualitative data will be collected from student teachers studying in different countries to investigate MOCF'S cross-cultural effect by utilizing semi-structured interviews. The data will be analyzed through content analysis.

EAPRIL 2023 MEET-UP: Building Research-Practice-Partnerships (RPP)

Keywords: Practice-based Research (methodology), Research Cooperation Frameworks, Research-based Learning, Technology Enhanced Learning

Presenting Author:Sarah Bichler, Ludwig-Maximilians-Universität (LMU), Germany

Teachers or practitioners and researchers are essential to realize relevant and effective (technology-enhanced) learning in schools. Building on experience in collaborating with middle and high school science teachers in the broader blinded for peer review, I am curious to meet others who operate under the same premise and want to build and sustain collaboration between researchers and practitioners in the European context. In the meet-up, I want to learn about similar existing efforts, develop a vision for RPPs in the European context, discuss potential cross-institutional or European collaborations, and explore possibilities for raising funds for joint projects. The RPP I am currently working towards will evolve around utilizing educational technology and a digital learning platform (DLP) to realize and make scalable adaptive and individualized instruction. The meet-up ideally brings together people who are interested in RPPs in general as well as those who are interested in co-development and co-design of digital solutions.

The benefits of adventure education and outdoor learning in higher education

Keywords: Higher Education, Innovations in Education, Project-based Learning, Well-being & Engagement

Presenting Author:Ellen Rohaan, Fontys University of Applied Sciences, Netherlands

This meet up is aimed at exploring and sharing ideas on research that focusses on positive developmental outcomes, such as sustainable behaviour and psychological resilience, of adventure education and outdoor learning programs in higher education. The case of a 4 day hike in the Ardennes (Belgium) as part of a minor program in the Netherlands is used to introduce and clarify the research context. Everyone who is interested in adventure education and outdoor learning is invited to join this meet up. Together we share cases and good practices and prior and ongoing research projects, and explore first ideas on relevant research questions and opportunities for collaboration and funding.

Digital tools to enhance learning strategies, motivation and 21st century skills

Keywords: 21st Century Learning, Beliefs and Conceptions of Learning, Internships, Motivation

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

Institutions for higher education are unsure how to tackle gaps in study motivation, learning strategies and skill gaps with regards to soft skills. Teachers,

mentors and coaches struggle with both measuring these subjects and with supporting students in their learning and soft skills development. Instruments are presented which are the results of our practice based research: the Lemo-instrument (Learning strategies and motivation) and the KYSS-instrument (Kickstart Your Soft Skills) as measuring and feedback tools concerning learning strategies, study motivation, 21st century skills and the subsequent online learning platforms to support the development of students to be better prepared for entering higher education or the labour market afterwards. These instrument are usable for data based motivational and learning coaching, concerning Lemo, and, for data based coaching during internship, work please learning and also for own professional development concerning KYSS. In this meet up we are looking for: 1. Partners to optimize instruments for soft skill development and learning strategies in different contexts or countries. 2. Partners who are interested or also specialized in these theme's to exchange research experiences. 3. partnerships or submitting a joint practice based research project on these themes.

Session C 4

22 November 2023 14:10 - 15:40

Meeting Room 6

Case study

Early childhood education, Higher education, Primary education

Diversity & Inclusivity In Primary & Higher Education

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Diversity, Early Childhood Education, Higher Education, In-service Teacher Training, Inclusivity, Organisation of Educational Research

Interest group: CLOUD 02 - Educators' professional development, CLOUD 08 - Diversity & equality in different contexts, CLOUD 11 - Practice-based Research Methodology

Chairperson: Marcel Van der Klink, Zuyd, University of Applied Sciences, Netherlands

Tommy and his Pet: the power of building partnership in research and change processes

Keywords: Diversity, In-service Teacher Training, Inclusivity, Organisation of Educational Research

Presenting Author: Diana Baas, Hogeschool De Kempel, Netherlands; **Presenting Author:** Elke Dingen, Hogeschool de Kempel, Netherlands; **Co-Author:** Anne van Buul, Hogeschool de Kempel, Netherlands

Teachers work in complex, dynamic, unpredictable realities, while confronted with many different challenges. They have to bridge many varying perspectives, but are not always trained to deal with this. How can teachers collaborate with their students and other partners to master their own practical context, bridge differences, finding answers for complex challenges?

Our Master students are taught how to build partnerships with their pupils and other relevant partners based on social constructionist theory. Their increased relational awareness influences their way of looking at their own reality, leads to new modes of operation, and generates more sustainable solutions and new breakthroughs in their work. By focusing on the relational processes, embracing and bridging diversity, teachers can build strong partnerships. From this find more sustainable and often unexpected solutions for their questions. Partnership is not something that just happens, but needs to be carefully prepared and executed. Giving voice to children, and other partners in the social system, increases the amount of ideas to solve problems; Self-power becomes Together-power. Dialogical and collaborative practices feed the building of partnership. The case of Tommy and his Pet is a wonderful illustration of how such process evolves through certain phases, and which limitations and opportunities are encountered.

Caring Culture: With each other, for each other. A diversity-sensitive series for education & training

Keywords: Diversity, Early Childhood Education, Higher Education, Inclusivity

Presenting Author: Christian Wiesner, University College of Teacher Education in Lower Austria, Austria; **Presenting Author:** Simone Breit, University College of Teacher Education Lower Austria, Austria; **Presenting Author:** Kerstin Angelika Zechner, University College for Teacher Education in Lower Austria, Austria

Caring Culture: With each other, for each other A diversity-sensitive series for education and training

The University College of Higher Teacher Education in Lower Austria is focusing care as a common topic within the academic year 2022/23. The Departments of Diversity and Early Childhood Education of the University College of Teacher Education in Baden, Lower Austria created a cycle of online lectures combined with learning environments in original contexts. Target groups of the lectures are pupils, students, teachers and further staff in the pedagogical field. Moderated discussions follow short keynotes or performances, that integrate the perspective of academic experts, artists as well as affected in the field of diversity. Care is illuminated from the perspective of equity care (social care) that is different from caring as sharing (prosocial care, participation) and caring as sympathize in relation to a form of care as distanced empathy.

Case-based teaching – a multicultural approach in Teacher Education

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Diversity, Higher Education

Presenting Author: Marit Kulild, Western Norway University of Applied Sciences, Norway; **Co-Author:** Camilla Bjelland, Western Norway University of Applied Sciences, Norway

This case is related to the learning outcome for student teachers (ST) at a teacher training institution in Norway: *The candidate has knowledge of key principles that promote inclusive education and adapted education.* We used constructive alignment as a tool in the course design, involving 45 student teachers and three teacher trainers. The background for the implementation of case-based learning in our course design is former student teachers' desire for an education that is close to the "real life" in the classroom. In the assignment, ST will discuss and reflect upon different ways to promote inclusive differentiated education. Based on qualitative and quantitative data from a survey and the analyses of the ST's presentations and their written self-assessment, our conclusions are that the case offered possibilities for the student teachers to reflect upon their own learning. This encourages the students to analyze and synthesize in a more metacognitive way which is important to enhance professional growth. The STs reflected upon their broadened understandings of how to improve teaching and learning in a multicultural classroom. We therefore conclude that both constructive alignment and case-based teaching, are useful tools in linking theory and practice in teacher education.

Session C 5

22 November 2023 14:10 - 15:40

Meeting Room 4

Workshop

Higher education

Dialogue and solidarity in teacher education: Positionality in advocating for social justice

Keywords: Diversity, In-service Teacher Training, Professional identity, Teaching Approaches

Interest group: CLOUD 01 - Teacher education

The workshop will develop and share, through work being conducted in the teacher education practitioner research space, ideas about a teaching approach to social justice. The aim is to (i) encourage workshop participants to learn with and from each other, within and across their respective jurisdictions, how best to position themselves and those they work with to engage openly and safely with social justice matters, and (ii) identify what considerations need to be addressed in formalising a shared space to discuss and enact social justice. Participants will have an opportunity to work on their own and then in pairs before forming a small group to enhance the sharing of thoughts, perceptions and realities related to the communication and education of social justice. Methods will include activities that encourage participants to consider (a) a shared working definition for social justice, (b) assumptions made with respect to one's biography and journey, and that of others, related to social justice, and (c) reactions to case study scenarios related to social justice issues. The workshop will be facilitated by

teacher educators and pre-service teachers who have experience of engaging with the workshop activities through their respective teacher education programmes.

Dialogue and solidarity in teacher education: Positionality in advocating for social justice

Presenting Author:Ann MacPhail, University of Limerick, Ireland; **Co-Author:**Carla Luguetti, Victoria University, Australia; **Co-Author:**Antonio Calderon, University of Limerick, Ireland; **Co-Author:**Brigitte Moody, University of Limerick, Ireland; **Co-Author:**Clare McAuley, Ulster University, United Kingdom; **Co-Author:**Dylan Scanlon, Deakin University, Australia; **Co-Author:**Elaine Murtagh, University of Limerick, Ireland; **Co-Author:**Jennifer Walton-fisette, Kent State University, United States; **Co-Author:**Mairead Davidson, Ulster University, United Kingdom; **Co-Author:**Paul McFlynn, Ulster University, United Kingdom; **Co-Author:**Allison Campbell, Ulster University, United Kingdom

The workshop will develop and share, through work being conducted in the teacher education practitioner research space, ideas about a teaching approach to social justice. The aim is to (i) encourage workshop participants to learn with and from each other, within and across their respective jurisdictions, how best to position themselves and those they work with to engage openly and safely with social justice matters, and (ii) identify what considerations need to be addressed in formalising a shared space to discuss and enact social justice. Participants will have an opportunity to work on their own and then in pairs before forming a small group to enhance the sharing of thoughts, perceptions and realities related to the communication and education of social justice. Methods will include activities that encourage participants to consider (a) a shared working definition for social justice, (b) assumptions made with respect to one's biography and journey, and that of others, related to social justice, and (c) reactions to case study scenarios related to social justice issues. The workshop will be facilitated by teacher educators and pre-service teachers who have experience of engaging with the workshop activities through their respective teacher education programmes.

Session C 6

22 November 2023 14:10 - 15:40

Meeting Room 7

EAPRIL Cloud Spotlight Session

Higher education

Education for Sustainability - professionalising teachers

Keywords: Equality / Education for All, Professional Development, Teaching Approaches, Training and Development

Interest group: CLOUD 10 - Education for Sustainability

More and more people are convinced that Education for Sustainability is an essential component of quality education. But which mindsets, skills and attitudes are necessary to provide such education? The following question will be at the centre of this spotlight session: 'How do you prepare (in service) teachers for (forms of) Education for Sustainability?'. As an introduction, two practices of the professionalisation of (in-service) teachers are highlighted, with successes, challenges and opportunities explored. In addition, (own) professionalization practices are shared and discussed in small groups. We will wrap up this session by jointly identifying key factors for appropriate professionalisation trajectories.

Education for Sustainability - professionalising teachers

Presenting Author:S. J. Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Benjamin Mallon, Dublin City University, Ireland

More and more people are convinced that Education for Sustainability is an essential component of quality education. But which mindsets, skills and attitudes are necessary to provide such education? The following question will be at the centre of this spotlight session: 'How do you prepare (in service) teachers for (forms of) Education for Sustainability?'. As an introduction, two practices of the professionalisation of (in-service) teachers are highlighted, with successes, challenges and opportunities explored. In addition, (own) professionalization practices are shared and discussed in small groups. We will wrap up this session by jointly identifying key factors for appropriate professionalisation trajectories.

Session C 7

22 November 2023 14:10 - 15:40

Board Room

Present & Discuss

Higher education

Initial Teacher Education

Keywords: Culture and Education, Curricula, Higher Education, Initial Teacher Education (Pre-service), Innovations in Education, Internships, Mentoring, Organisation of Educational Research, Practice-based Research (methodology), Professional Development, Research Cooperation Frameworks, Team Learning

Interest group: CLOUD 01 - Teacher education, CLOUD 07 - Research impact on school development

Chairperson: Despoina Georgiou, Utrecht University, Netherlands

Video-based feedback for collaborative reflection among mentors, university tutors and students

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

Presenting Author:Paula Mayoral Serrat, Ramon Llull University, Spain; **Presenting Author:**Eva Liesa, Ramon Llull University, Spain; **Co-Author:**Mireia Giralt, UAB Universitat Autònoma de Barcelona, Spain; **Co-Author:**Salvador Angulo, Ramon Llull University, Spain

This paper explores the VEO application as a tool for monitoring teaching practices by analysing a challenging situation by the student teacher, the school mentor and the university tutor, matching their online feedback and considering the previous analysis of the student teacher. The objectives are threefold: to analyse the type of challenges that appear through the content of the challenging situations selected by the students, to identify which mentor feedback episodes occur using VEO and to characterise each episode in terms of their feedback strategies. Finally, to analyse the differences between school mentors' and university tutors' feedback. We conducted a descriptive and exploratory study. The sample consists of 12 student teachers, their respective school mentors and the five university tutors of these students. Each student teacher's challenging situation was divided into feedback episodes, and we established about 278 feedback episodes. The type of challenges referred mainly to classroom communication issues and the generation of a good climate. The most frequent episodes were mentoring episodes focused on appraising and mentoring episodes emphasising understanding and solution-finding. And finally, school mentors and university supervisors used different feedback strategies. Implications for teacher learning and orientations in mentoring programs are discussed.

A systematic literature review of Lesson Study in ITE: Variations, challenges and suggestions

Keywords: Culture and Education, Higher Education, Initial Teacher Education (Pre-service), Practice-based Research (methodology)

Presenting Author:Shirley Tan, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**martijn willemse, Windesheim University of applied sciences, Netherlands; **Co-Author:**Wouter Joolingen, Utrecht University, Netherlands

Despite the growing interest in Lesson Study (LS) in Initial Teacher Education (ITE), there is a need for further research to develop a better understanding of how LS can be effectively integrated into existing ITE programmes and what factors may influence its effectiveness. This systematic literature review aims to provide a comprehensive analysis of LS drawing on research in English, Japanese, and Chinese languages. The review focused on three key areas: the design and variations of LS, the reported challenges, and the reported suggestions. Following the PRISMA guidelines, 94 studies published until June 2022 were analysed. The review revealed that LS was implemented with adaptations in the level of pre-service teachers' involvement, training, and presence of mentors.

Some reported challenges include imbalanced power dynamics between PSTs and mentors, the gap between the real school experience and LS, and difficulty transposing LS into ITE cultures. Some suggestions revolve around involving external experts, defining LS participants' roles, and experiencing complete cycles of the LS process. Findings from the review contribute to evidence-based teacher education by providing insights and alternatives into how LS can be effectively integrated into ITE programmes and tailored to the needs and cultural contexts of institutions.

School-university partnerships - bridging the gap between the academic and practical worlds

Keywords: Initial Teacher Education (Pre-service), Organisation of Educational Research, Professional Development, Research Cooperation Frameworks

Presenting Author: Vesna Kucher, University of Klagenfurt, Austria; **Presenting Author:** Verena Novak-Geiger, University of Klagenfurt, Austria

In the past years, the main aim of school-university partnerships (SUPs) in teacher education was to improve teaching and learning practices (Walsh & Backe, 2013; Green et al., 2019; Sarmiento-Márquez et al., 2023). In the year 2017, the School of Education at the University of Klagenfurt shifted the focus of collaboration and initiated SUPs that would foster educational innovations (Hauth, C. et al., 2019; Barnay, R. et al., 2020). For this purpose, five schools were chosen for the collaboration period of four years. During the SUP-Project, a study that draws on 28 projects carried out between university and these schools was conducted in order to outline guidelines for further collaborative work. The data was acquired by a quantitative online questionnaire on the participants' perception of the collaboration in general and includes their personal assessment of the relevance of the projects output for their further work. Moreover, it explores the challenges, concerns and suggestions faced by participants that aspire to improve the practice and understanding of cooperation. The latter was investigated by guided interviews with practitioners and researchers in the last year of the cooperation 2022 (Koren et al., 2022) and the findings are to be presented at the EAPRIL 2023.

Activist Action in the Integrator Scenario

Keywords: Curricula, Initial Teacher Education (Pre-service), Innovations in Education, Team Learning

Presenting Author: Sara Pimenta, University of Szeged, Hungary; **Co-Author:** Júlia Martins Figueiredo, State University of Santa Cruz, Brazil; **Co-Author:** Elisa Prestes Massena, State University of Santa Cruz, Brazil

Curriculum redesign through the Integrator Scenario proposal aims to explore scientific content from a socially relevant theme that emerges from the school context and its particularities. One of its learning moments is an activist action. This research aims to analyze the potentialities and limits of activist action in the curricular redesign Integrator Scenario addressing the relationship of the student positioning as a guiding axis. To this end, an interview with semi-structured scripts was conducted with two participants from different communities of practice who developed the Integrator Scenario. The interviews were audio recorded/ videotaped. Two categories of the initial phase and of emergent character were analyzed: (a) The dialogue with the school - Sphere of Elaboration and Implementation, and (b) Activist action in the school context and the repercussion in the formation of the graduate. This research can contribute to a better understanding of the activist action role within the Integrator Scenario.

Session C 8

22 November 2023 14:10 - 15:40

Minor Hall

Present & Discuss

Higher education, Vocational education

Motivation in Higher & Vocational Education

Keywords: Continuing Professional Development in Teachers, Educational Attainment & Achievement, Emotions and Emotional Development, Higher Education, Internships, Language Education, Lifelong Learning, Motivation, Physical Education, Professional identity, Technology Enhanced Learning, Vocational Education, Workplace Learning

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

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

The Relationship Between Test Anxiety and Test Results in Low-stakes Situation in an Anxious Group

Keywords: Educational Attainment & Achievement, Emotions and Emotional Development, Higher Education, Motivation

Presenting Author: Kristóf Lakatos, University of Szeged, Hungary

In high-stakes situations, the relationship between anxiety and school performance is considered to be significant. By Yerkes-Dodson Law (1908), a certain level of anxiety is necessary to perform well. It is argued that, if a group is relatively anxious, even in a low-stakes situation the anxiety and the school performance relate to each other. With 1518 participants 4 clusters have been divided by anxiety and school performance, one of them (293 participants) is considered to be anxious. Anxiety was measured by Children Test Anxiety Scale (CTAS), while the school performance was measured by the achieved level of percentage of five subjects (Hungarian, Mathematics, History, Language and Elected subject). Our hypotheses that in the anxious cluster, anxiety correlates (H1 accepted) and predicts $F(3, 346) = 7.72, p < .01, R^2 = .055$ (H2 accepted) all of the test results, while the four clusters differ from each other in anxiety $F(3, 1220) = 100.49, p$

Motivation to learn English: A study of Japanese undergraduate footballers in CLIL education

Keywords: Language Education, Motivation, Physical Education, Technology Enhanced Learning

Presenting Author: MACHIKO KOBORI, Hosei University, Japan; **Co-Author:** Yoshika Matsubara, University of Tsukuba, Japan; **Co-Author:** Hideto Takahashi, University of Auckland, Japan

This study explores motivation of undergraduate footballers in Japan to learn English as a Foreign Language (EFL), focusing on their notion of second language (L2) Instrumentality. Conducted as part of a project of Content and Language Integrated Learning (CLIL) student teacher education of English and Physical Education (PE) for primary education, this research aims to identify crucial aspects of their EFL learning and potential in English education. This research utilises classic and modern L2 motivation frameworks: the Socio-Educational model and the L2 Motivational Self System. Data were gathered using a survey questionnaire administered to 27 undergraduate footballers (aged 18+) across years 1-4 at a university-affiliated football team in Tokyo, Japan. Factor analysis and ANOVA were employed for data analysis, mainly based on a cross-sectional approach. Results showed that undergraduate footballers held a clear notion of L2 Instrumentality throughout their undergraduate years. Moreover, internal constructs of L2 Instrumentality, Instrumentality prevention and promotion, were identified distinctively among them. The influence of their Ideal L2 self as future prospects associated with professional careers overseas was also highlighted as a significant factor affecting their L2 Instrumentality and facilitating a relatively smooth transition in EFL learning from the first to the final year.

Hybrid tech teachers: their motivation and experiences in combining their roles.

Keywords: Continuing Professional Development in Teachers, Lifelong Learning, Professional identity, Vocational Education

Presenting Author: Sandra Janssen, Fontys University of applied science, Netherlands; **Co-Author:** Kara Vloet, Fontys University of Applied Science, Netherlands; **Co-Author:** Dick Siesling, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Ellen Koop, Fontys University of Applied Sciences, Netherlands

As the Brainport Region of the Netherlands is eager to prepare more good qualified students for the fast growing technical work field, it invests in attracting technical employees to spend a part of their work week to educate these students. This so-called hybrid teaching might be a solution for shortage in technical teachers and strengthening the connection between technical work field and education. In this research we aim to investigate the expectations and experiences of the hybrid teachers in combining their two jobs and being a teacher. Two studies were conducted to examine these experiences. The first study is a quantitative research by using questionnaires, the second study is a qualitative study in which the experiences were examined in more depth by semi-structured interviews. Eleven hybrid teachers were interviewed. The interviews are transcribed and qualitatively analysed. Preliminary results show that contact with students is their main motive, combined with sharing their knowledge and their passion for technology to guide students in developing (professional) skills. More

results will be presented during the conference. Furthermore, the results will contribute to interventions that promote working with hybrid teachers and support them to combine their jobs successfully.

Factors for a positive learning experience in VET students

Keywords: Internships, Motivation, Vocational Education, Workplace Learning

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

In school we value a positive learning experience of our children. After school, when the young adults first enter the labour market, few is known about what has a positive effect on the learning experience in vocational educational training. In particular, German-speaking VET is divided into learning at school and learning in the workplace. In this presentation I show a study that investigates motivational correlates of a positive VET learning experience *sensu flow*. Results show that the support of individual achievement motivation and feedback from supervisors and the company are the most strongly associated factors with a flow-like experience. Abstract factors like collegial esteem and future workplace security are not directly associated with a positive experience. In practical terms VET education can now focus on teaching quality, competence orientation and task development. One may also use the results to re-advertise VETs in jobs that face a loss of applicants.

Session D 1

22 November 2023 16:10 - 17:40

Conference Room

Poster Presentation

Higher education, Secondary education, Vocational education, Workplace learning

Well-being And Motivation In Education

Keywords: 21st Century Learning, Assessment and evaluation, Collaborative Learning, Doctoral Education (PhD education), Educational Effectiveness and Quality of Education, Higher Education, Inclusivity, Innovations in Education, Interaction and Discourse in Education, Leadership Development, Lifelong Learning, Motivation, Vocational Education, Well-being & Engagement, Workforce Diversity and Equality

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

Is homo florens a cosmopolitan?

Keywords: Inclusivity, Leadership Development, Well-being & Engagement, Workforce Diversity and Equality

Presenting Author:Danaë Huijser, University of Humanistic Studies, Netherlands

Is homo florens a cosmopolitan? Protecting human dignity in culturally diverse teams. My research project aims to contribute to well-being in culturally diverse teams, by designing an intervention that supports leadership practices directed at increasing well-being in culturally diverse teams. The humanistic management model (Pirson, 2017) will serve as the foundation for well-being directed leadership practice, applied in the context of culturally diverse teams in which members give different meaning to and experience the concept of human dignity differently. The research focusses specifically on the variety of experience of human dignity in team members of culturally diverse teams, how the role of leadership in promoting human dignity in such teams is valued and practiced, and finally how leaders of culturally diverse teams can benefit from interventions such as normative professionalization (Ewijk and Kunneman, 2013/2019) and ethical reflection (Nullens, 2014).

SENSE OF BELONGING & WELL-BEING STUDENTS AFTER PANDEMIC AT DUTCH VOCATIONAL & HIGHER EDUCATION

Keywords: Educational Effectiveness and Quality of Education, Higher Education, Vocational Education, Well-being & Engagement

Presenting Author:Zwaan Zwart, Noorderpoort, Netherlands; **Co-Author:**Aafke van Mourik Broekman, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Elanor Kamans, Hanze University of Applied Sciences, Netherlands; **Co-Author:**Nadira Saab, Leiden University, Netherlands; **Co-Author:**Marca Wolfensberger, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Co-Author:**Annegien Langeloo, Hanze University of Applied Sciences, Netherlands

The COVID-19 pandemic has had a major negative impact on the sense of belonging and mental well-being of students in Dutch vocational and higher education. Educational institutions try to increase well-being and sense of belonging of students, in part through approaches subsidized by the National Education Program (NEP), a support package to repair damages caused by COVID-19. With a consortium of researchers from vocational (ROC Noorderpoort Groningen), and higher education (Hanze University of Applied Sciences Groningen and Leiden University), we are jointly researching what the successful factors of these NEP approaches are according to stakeholders, such as teachers and mentors, and students. With our research methods we stimulate knowledge exchange by bringing stakeholders from different educational sectors together to share their experiences with each other. We do this by organizing cross-institutional focus groups with stakeholders, and within-institutional fishbowl focus groups with students. The successful factors are presented at the conference.

Sense of community – a source for well-being in (educational) organizations

Keywords: Collaborative Learning, Interaction and Discourse in Education, Vocational Education, Well-being & Engagement

Presenting Author:Riikka Michelsson, Jyväskylä University of Applied Sciences, Teacher Education College, Finland; **Co-Author:**Sirpa Laitinen-Väänänen, JAMK University of Applied Sciences, Finland; **Co-Author:**Ella Burns, JAMK University of Applied Sciences, Jyväskylä, Finland; **Co-Author:**Hanna Laitinen, JAMK University of Applied Sciences, Finland

During and after the COVID-19 pandemic, educational organizations faced new situations, thus, obliging all staff members to use digital platforms in their activities more than ever before. This challenged teaching, learning, and co-working in many ways when interaction and communication shifted from in-person to online. Working remotely also challenged the collective culture in educational organizations which is known from previous research to be one of the key elements in supporting teacher well-being. The purpose of this paper is to describe a RDI project where 59 participants from 10 vocational colleges attended a six-month long coaching process. In the process the participants were coached by a designated facilitator (teacher educator) who supported them to develop their online interaction skills, to reflect the collective culture in their organizations, and to contemplate how the collective culture is experienced especially when working online. In this paper we elaborate the coaching process, the observations made by the facilitators (teacher educators), and the framework that was outlined based on the observations. We also suggest that this framework can be used as a tool in developing collective culture in (educational) organizations.

Using flexible assessments to enhance student motivation

Keywords: Assessment and evaluation, Doctoral Education (PhD education), Motivation, Vocational Education

Presenting Author:Giel Kessels, Open University, Netherlands; **Co-Author:**Kate Xu, Open University, Netherlands; **Co-Author:**rob martens, Open University of the Netherlands, Netherlands

Motivation is key to learning. A possible solution to enhance motivation is sought in supporting students' autonomy in learning tasks. The effects of personalised learning on student motivation is frequently researched (Martens et al., 2004). Opposite to learning tasks students often have no choice in assessments that support their perceived autonomy. An assessment is an example of a controlled form of motivation which has few or none autonomy-supporting characteristics. This explorative research gives answer to: 1) What assessment choices do VET students want to be offered in order to enhance their perceived autonomy? 2) How could choice within assessments be offered and how does the choice affect their motivation for assessments? A cross-sectional survey study resulted in a top three ranking of assessment characteristics on assessment form, number of attempts and assessment moment. During focus group interviews students overall preferred an increase of autonomy in choice-making decisions during their course and a limited amount of choice options. These findings inform educational practice regarding how to structure assessment format in to increase motivation.

Motivation in challenge-based learning – Practical implications of a mixed-methods study

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

Presenting Author: Selina Michel, Technical University Munich, Germany; **Co-Author:** Manuel Förster, Technical University Munich, Germany

To improve the design of challenge-based learning (CBL) courses and promote active learning, it is important to understand what situative incentives, personal dispositions, and expectations affect students' motivation. This study uses a mixed methods approach for describing motivation to participate in CBL courses according to the extended cognitive model of motivation from Heckhausen and Heckhausen (2018). The results from surveying participants at the beginning of a CBL course ($N = 114$) with different response formats (e.g. open questions, standardized items, ranking item) (study 1) and qualitative interviews with the target group ($N = 9$) (study 2) provide an overview of situative incentives (e.g. interdisciplinary), personal dispositions (e.g. learning interest) and expectations on desired outcomes (e.g. transferable competences and impact on society) relevant for students' motivation to participate in CBL. Beyond implications for future research, the findings highlight practical implications for the design of CBL courses (e.g. collaboration and networking elements), learning goals (e.g. transferable skills like project management), and content selection (e.g. challenges with societal or sustainable impact). University faculty should take into account which situative incentives, personal dispositions, and desired consequences can influence motivation in CBL.

Self-Directed Learning in Instruction: Examining Changes in Basic Needs and Motivation

Keywords: 21st Century Learning, Innovations in Education, Lifelong Learning, Motivation

Presenting Author: Lia Grahl, University Greifswald, Germany; **Co-Author:** Sabine Schweder, University Greifswald, Germany; **Co-Author:** Diana Raufelder, University Greifswald, Germany

Based on the Self-Determination Theory, this study examined the change in basic needs and motivation under the control of performance data and the extent to which information and communication technology (ICT) was utilized by students who learned under an instructional design that offers multiple changes between self-directed learning and teacher-directed instruction (both concepts nested) over the course of a school year. Questionnaire and performance data of 754 students (mean age = 13.56; standard deviation = 1.22; 49.7% female) were analyzed by latent change score models. The results indicated that, contrary to the findings of previous studies, a positive development of motivation and competence experiences was generally observed over the course of the school year, with most of the improvement coming from the self-directed learning intervals. In the self-directed learning intervals, the students reported a strong increase in the usage of ICT. By employing self-directed learning intervals in regular instruction, it is possible to combat the downward tendency for motivation to spiral downward. This tendency is most pronounced at the beginning of secondary school and the beginning of adolescence.

Session D 2

22 November 2023 16:10 - 17:40

Meeting Room 3

Workshop

Secondary education

Master-educated teachers and inquiry-based working in secondary vocational educational teams

Keywords: Collaborative Learning, Inquiry Learning, Practice-based Research (methodology), Vocational Education

Interest group: CLOUD 11 - Practice-based Research Methodology

The workshop aims to explore the role of master-educated teachers with a teacher leader profile (MTLs) in improving the educational quality of institutes for secondary vocational education and training (VET). The workshop is based on the results of a three-year exploratory comparative case study, which shows that MTLs can contribute to educational quality through activities that support inquiry-based working in educational teams (inquiry teams), alignment within the organization, and self-care. We offer participants in the workshop a set of tools that aim to enhance working in inquiry teams. Participants will have the opportunity to choose a tool and work in small groups to gain hands-on experience. The workshop's goals are to provide insight into the study's results and tools and to offer practical experience in working with the tools. Our focus is on the role of MTLs and how to apply and implement the tools that aim to enhance working in inquiry teams. The study and tools presented in the workshop make a meaningful contribution to addressing the complex and dynamic issues in secondary vocational educational institutes, in which the role of MTLs is crucial.

Master-educated teachers and inquiry-based working in secondary vocational educational teams

Presenting Author: Kathinka van Doesum, mboRijnland - Practoraat Research Lab, Netherlands; **Co-Author:** Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands; **Co-Author:** Wilbert van der Heul, Skyward Learning Agency, Netherlands; **Co-Author:** Erica Wijnands, mboRijnland, Netherlands; **Co-Author:** Sara Albone, Aeres Hogeschool Wageningen, Netherlands

The workshop aims to explore the role of master-educated teachers with a teacher leader profile (MTLs) in improving the educational quality of institutes for secondary vocational education and training (VET). The workshop is based on the results of a three-year exploratory comparative case study, which shows that MTLs can contribute to educational quality through activities that support inquiry-based working in educational teams (inquiry teams), alignment within the organization, and self-care. We offer participants in the workshop a set of tools that aim to enhance working in inquiry teams. Participants will have the opportunity to choose a tool and work in small groups to gain hands-on experience. The workshop's goals are to provide insight into the study's results and tools and to offer practical experience in working with the tools. Our focus is on the role of MTLs and how to apply and implement the tools that aim to enhance working in inquiry teams. The study and tools presented in the workshop make a meaningful contribution to addressing the complex and dynamic issues in secondary vocational educational institutes, in which the role of MTLs is crucial.

Session D 3

22 November 2023 16:10 - 17:40

Meeting Room 6

Workshop

Workplace learning

Ingredients for student teachers' workplace learning: six ways of learning

Keywords: Initial Teacher Education (Pre-service), Professional Development, Self-regulation and Self-regulated Learning, Workplace Learning

Interest group: CLOUD 01 - Teacher education

Seventeen cases, in which Professional Development Schools (PDS) described their good practices for enriching the student teachers' learning environment, were analysed. Six ingredients were found: Context learning; Reasoned learning; Agency of learning; Collaborative learning; Inquiry learning; and Informal learning. In the workshop we will dig deeper in some of the six ingredients by sharing insights based on small scale research projects. For example inquiry learning focused on stimulating student teachers to influence the proximity their students perceive by collecting data and using scientific sources. And concerning reasoned learning group discussions have been organised with student teacher panels. Also informal learning, context learning and agency of learning will be addressed. The workshop has an interactive and collaborative format. After introducing the six ingredients for student teachers' learning at the workplace, five short pitches will be held in which every research project is presented. The next step will be a carousel in which the participants in small groups go from one 'ingredient' corner to the next one. After that participants can make a choice to join one 'ingredient' for in depth information and co creation time. The last part of the workshop we will have a plenary conclusion.

Ingredients for student teachers' workplace learning: six ways of learning

Presenting Author: Bob Koster, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Tom Adams, Fontys University, Netherlands; **Co-Author:** Pettra van Beveren, Utrecht University of Applied Sciences (Hogeschool Utrecht), Netherlands; **Co-Author:** John vd Kant, Eckartcollege/Nuenens College Eindhoven, Netherlands; **Co-Author:** Martin VanderPlas, Scalda, Netherlands; **Co-Author:** Twan van de Wetering, VO Veghel, Veghel, Netherlands

Seventeen cases, in which Professional Development Schools (PDS) described their good practices for enriching the student teachers' learning environment, were analysed. Six ingredients were found: Context learning; Reasoned learning; Agency of learning; Collaborative learning. Inquiry learning; and Informal learning. In the workshop we will dig deeper in some of the six ingredients by sharing insights based on small scale research projects. For example inquiry learning focused on stimulating student teachers to influence the proximity their students perceive by collecting data and using scientific sources. And concerning reasoned learning group discussions have been organised with student teacher panels. Also informal learning, context learning and agency of learning will be addressed. The workshop has an interactive and collaborative format. After introducing the six ingredients for student teachers' learning at the workplace, five short pitches will be held in which every research project is presented. The next step will be a carousel in which the participants in small groups go from one 'ingredient' corner to the next one. After that participants can make a choice to join one 'ingredient' for in depth information and co creation time. The last part of the workshop we will have a plenary conclusion.

Session D 4

22 November 2023 16:10 - 17:40

Meeting Room 7

EAPRIL Cloud Spotlight Session

Higher education

Cloud 10 kitchen table conversations - exploring opportunities for collaboration

Keywords: 21st Century Learning, Professional Development, Teaching Approaches, Training and Development

Interest group: CLOUD 10 - Education for Sustainability

EAPRIL Cloud 10: Education for Sustainability - Spotlight Session 2

This spotlights session is focused on getting to know each other as Cloud members. In a small group setting one will share and reflect upon ongoing practice and research in Education for Sustainability and plans for the future. Besides, the group dialogues offer the opportunity to explore possibilities for collaboration, for example in writing project submissions, organizing symposia and working on publications. The session will also make space to imagine potential synergies for Cloud 10's future work. Cloud 10 - Education for Sustainability aims to be a platform for project leaders and practitioner-researchers who are interested in education and learning in the field of sustainable development. This network addresses, among other things, projects and practice-based research related to Social Entrepreneurship Education, Education for Sustainable Development and the integration of SDGs in curricula.

Cloud 10 kitchen table conversations - exploring opportunities for collaboration

Presenting Author:S. J. Wal-Maris, Marnix Academie, University of Applied Sciences, Netherlands; **Co-Author:**Benjamin Mallon, Dublin City University, Ireland

EAPRIL Cloud 10: Education for Sustainability - Spotlight Session 2

This spotlights session is focused on getting to know each other as Cloud members. In a small group setting one will share and reflect upon ongoing practice and research in Education for Sustainability and plans for the future. Besides, the group dialogues offer the opportunity to explore possibilities for collaboration, for example in writing project submissions, organizing symposia and working on publications. The session will also make space to imagine potential synergies for Cloud 10's future work. Cloud 10 - Education for Sustainability aims to be a platform for project leaders and practitioner-researchers who are interested in education and learning in the field of sustainable development. This network addresses, among other things, projects and practice-based research related to Social Entrepreneurship Education, Education for Sustainable Development and the integration of SDGs in curricula.

Session D 5

22 November 2023 16:10 - 17:40

Concourse

Roundtable

Higher education, Lifelong learning, Secondary education

Learning In A Digital Era: Technology Enhanced Learning

Keywords: Blended Learning, Cognitive Skills & Development, Deep-level and Profound Learning, Distance Education, Higher Education, Lifelong Learning, Practice-based Research (methodology), Secondary School Education, Technology Enhanced Learning, Well-being & Engagement

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

Chairperson: Eva Hornung, Ireland

Think, speak, and reflect! Deeper learning with self-control tasks and voice input

Keywords: Cognitive Skills & Development, Deep-level and Profound Learning, Higher Education, Technology Enhanced Learning

Presenting Author:Egon Werlen, Swiss Distance University of Applied Sciences (FFHS), Switzerland; **Co-Author:**Dorothy Laubscher, North-West University, South Africa

In online learning environments, closed-ended questions, such as multiple-choice questions, allow learners to receive immediate feedback on their answers. Although open-ended questions may be more appropriate for some learning objectives and materials, providing immediate feedback on open-ended responses remains a challenge. Self-control tasks (SCT) provide students with instant feedback on answers to open-ended questions. The focus is on comparing the student's own answer with a sample answer and reflecting on differences between the answers. The tasks are designed in such a way that deeper learning can be achieved. SCT with oral answers adds another modality and should deepen learning even more. We received valuable feedback from qualitative interviews with undergraduate students from a project management course of a central European distance university. Some of the students reported benefits from the SCTs, others experienced difficulties with the self-directed learning that the tasks require. In the case of the SCTs with verbal input, there were also problems with the transcription. Students are required to learn to speak their answers. We would like to discuss what interventions are appropriate to help students to learn the skills for self-evaluation and self-reflection, and what is the additional benefit of a voice input for deeper learning.

Developing a quality assessment instrument for digital educational products

Keywords: Distance Education, Lifelong Learning, Practice-based Research (methodology), Technology Enhanced Learning

Presenting Author:Olga Rotar, Higher School of Economics, Russian Federation; **Co-Author:**Ivan Karlov, Higher School of Economics, Russian Federation;

Co-Author:Natalia Karmaeva, HSE University, Russian Federation; **Co-Author:**Kirill Savitsky, Higher School of Economics, Russian Federation; **Co-Author:**Andrey Zakharov, National Research University Higher School of Economics, Russian Federation

The aim of this project is to develop and pilot, in collaboration with an industrial partner, an instrument for assessing the quality of online courses for continuing adult education. We use a variety of methods of data collection and analysis, depending on the phase of the project, including i) a systematic literature review to formulate a set of quality dimensions and criteria, ii) the Delphi method to develop a quality assessment instrument, and iii) a case study method to pilot and verify the proposed instrument on the products of an industrial partner.

The instrument will allow an independent evaluation of the quality of digital educational products. Information obtained from this evaluation may be used to assess and benchmark educational products in relation to the developed quality standards, to map existing products on an online educational market in terms of quality, and to revise existing educational products to fit the quality standards. For potential users of digital educational products, this information may be used to make an informed decision to select a course or programme.

Digital education for every student: Success factors in the organisation of digital education

Keywords: Blended Learning, Secondary School Education, Technology Enhanced Learning, Well-being & Engagement

Presenting Author:Adriaan Vervoort, UHasselt, Belgium; **Co-Author:**Katrien Struyven, Hasselt University / Vrije Universiteit Brussel, Belgium; **Co-Author:**Nuria Gonzalez Castellano, Hasselt University, Spain; **Co-Author:**Lisa Koutsoviti Koumeri, Hasselt University, Belgium

Implementing digital technology in secondary education comes with many challenges that can create exclusion or hinder learning opportunities when poorly executed. Understanding how digital education can be organized successfully is essential to increase learning opportunities that reach every student. This success depends not only on organizational factors, but also teacher attributes. Data was collected using an adapted version of the SELFIE, followed by interviews and focus groups, in seven secondary and one higher education schools in the Meuse-Rhein Euregion. The dataset is being analysed in three different studies with complementary research questions, each with their own focus and methodological approach. These studies will contribute to understanding the human factor in the digitalization of education, with a focus on teacher attributes, student inclusion and well-being, and the subjective experiences of students and teachers. Results will be presented to openly discuss how digital education should be organized to create accessible and inclusive digital learning environments.

Session D 6

22 November 2023 16:10 - 17:40

Meeting Room 5

Workshop

Higher education

Raising awareness for and prioritizing teachers' digital competences for future-proof education

Keywords: Continuing Professional Development in Teachers, Innovations in Education, Professional Development, Technology Enhanced Learning

Interest group: CLOUD 02 - Educators' professional development

The integration of technology in education is a complex and multidimensional process, which requires a fundamental change in the professional behavior and mindset of teachers. The Higher Education Digital Competence (HeDiCom) framework was developed to provide a clear overview of required teachers' competences to achieve educational innovation with technology and to foster students' digital literacy in higher and vocational education. The framework includes four dimensions of teachers' digital competences: (1) Teaching practice, (2) Empowering students for a digital society, (3) Teachers' digital literacy, and (4) Teachers' professional development. The framework can help clarify expectations of teachers' digital competences and guide professional development activities. Educational practitioners and policy makers indicate, however, that they struggle to implement the framework into their own educational practices. To support the practical use of the framework we developed an interactive intervention to help create awareness and prioritize teachers' competences and to discuss the implications for professional development programs and strategies within the participants' own educational context. During the workshop we will introduce the framework briefly. Then, participants will be able to experience hands-on how they can use the framework to prioritize teachers' competences and help shape professional development concerning educational innovation with technology.

Raising awareness for and prioritizing teachers' digital competences for future-proof education

Presenting Author:Pieter van Rooij, HAN University of Applied Sciences, Netherlands; **Presenting Author:**Dana Uerz, HAN University of Applied Sciences (UAS), Netherlands; **Presenting Author:**Manon van Zanten, iXperium Centre of Expertise Teaching and Learning with ICT, Netherlands; **Co-Author:**Hilde Cuppen, HAN University of Applied Sciences (UAS), Netherlands

The integration of technology in education is a complex and multidimensional process, which requires a fundamental change in the professional behavior and mindset of teachers. The Higher Education Digital Competence (HeDiCom) framework was developed to provide a clear overview of required teachers' competences to achieve educational innovation with technology and to foster students' digital literacy in higher and vocational education. The framework includes four dimensions of teachers' digital competences: (1) Teaching practice, (2) Empowering students for a digital society, (3) Teachers' digital literacy, and (4) Teachers' professional development. The framework can help clarify expectations of teachers' digital competences and guide professional development activities. Educational practitioners and policy makers indicate, however, that they struggle to implement the framework into their own educational practices. To support the practical use of the framework we developed an interactive intervention to help create awareness and prioritize teachers' competences and to discuss the implications for professional development programs and strategies within the participants' own educational context. During the workshop we will introduce the framework briefly. Then, participants will be able to experience hands-on how they can use the framework to prioritize teachers' competences and help shape professional development concerning educational innovation with technology.

Session D 7

22 November 2023 16:10 - 17:40

Board Room

Present & Discuss

Primary education, Secondary education

STEM In Different Contexts

Keywords: 21st Century Learning, Beliefs and Conceptions of Teaching, Equality / Education for All, Initial Teacher Education (Pre-service), Music & Arts Education, Primary School Education, Professional Development, Secondary School Education, STEM, Teaching Approaches, Training and Development

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 09 - Sounds & Arts in Transversal Learning, CLOUD 10 - Education for Sustainability

Chairperson: François Lombard, University of Geneva, Switzerland

Exploring Primary School Teachers' Perceived Competence in Integrating Technology in their Classroom

Keywords: Primary School Education, Professional Development, STEM, Training and Development

Presenting Author:Christina Ioanna Pappa, Technische Universität München (TUM), Germany; **Co-Author:**Despoina Georgiou, Utrecht University, Netherlands; **Co-Author:**Daniel Pittich, Technical University of Munich (TUM), Germany

Despite the growing significance of technology in our daily lives, technology education often receives insufficient attention in primary schools. This lack of emphasis is commonly attributed to the difficulties in developing clear curriculum standards and providing adequate teacher training programs. This lack of emphasis on technology education can negatively affect primary school teachers' confidence and competence in integrating technology into their teaching practice. In turn, this can impact students' attitudes and skills toward technology education. To investigate primary school teachers' perceptions of their competencies in integrating technology-related subjects into their classrooms, we conducted semi-structured interviews with 21 German primary school teachers. Our results revealed that 15 interviewees did not feel competent in integrating technology topics, due to a lack of knowledge, confidence, and education related to technology. In contrast, six participants felt relatively competent in integrating technology into their lessons due to their motivation toward the subject. Our findings emphasize the need for standardized curricula frameworks and the development and implementation of technology-focused professional development programs for both pre-and in-service primary school teachers. Such programs can help support primary school teachers in effectively integrating technology into their lessons and ultimately improve the quality of education for primary school students.

Constraints implementing engineering education and the effect of engineering socialisation

Keywords: Beliefs and Conceptions of Teaching, Initial Teacher Education (Pre-service), Primary School Education, STEM

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

In the Swiss curriculum for compulsory school engineering education is predominantly integrated into subject compounds like textile and technical design or

nature and technology. Engineering itself as a content area is hardly taught in teacher education programmes. Therefore, this study attempts to contribute to the question how engineering topics are integrated into teaching. Based on the Rubicon model of motivation and action and with reference to pedagogical research, data on student teacher beliefs about constraints implementing engineering education and student teacher engineering socialisation were collected. Regression analyses reveal that engineering socialisation is weakly related with the implementation of engineering content. Results point toward a need of more intra-school support from colleagues and better quality equipment in order to promote engineering in classrooms. Also, a gender effect is evened out by the two desires. In terms of teaching praxis we suggest to establish communities of practice in schools and support teachers with material and pedagogical examples for engineering content.

Can students change the world? A dialogic approach to sustainability in diverse classes

Keywords: Equality / Education for All, Primary School Education, STEM, Teaching Approaches

Presenting Author: Leen Bisschop, Odisee University College, Belgium; **Co-Author:** Laura Van den Broeck, Odisee University College, Belgium; **Co-Author:** Eef Cornelissen, Odisee University College, Belgium; **Co-Author:** Veerle Verschoren, Odisee University College, Belgium; **Co-Author:** Filip Mennes, Odisee University College, Belgium; **Co-Author:** Steven Raeman, Odisee University College, Belgium; **Co-Author:** Jelle De Schrijver, Antwerp University & Odisee university college, Belgium

Education for Sustainable Development (ESD) aims to empower young people to deal with sustainability issues, such as climate change or biodiversity. However, not all youngsters get equal opportunities for environmental education. The challenge is to address sustainability in classes with a high sociocultural diversity. A dialogical approach stimulating pupils to think about sustainability is promising to include this group in ESD, as it allows pupils to link school-based knowledge with their own experiences embedded in one's sociocultural background. This contribution examines a teaching method to enhance pupils' reflection (10-14 year-olds) about sustainability developed through *Educational Research Design*. A facilitator and teachers conducted several sessions in 24 highly diverse classes in Brussels. *Directed content analysis* (1) the teacher interviews and (2) *field notes* by the facilitator indicates the teaching method influences class dynamics, e.g. the speaking time for language-poor learners increase. This dialogic teaching approach helps young people from a wide variety of backgrounds to engage in shared dialogues about sustainability questions. Yet sometimes, current power relations between groups with an advantaged and disadvantaged position can be mirrored in class interaction. This study allows to formulate suggestions for more emancipatory ESD-education.

STEAM: That's good in music and good in STEM, right?

Keywords: 21st Century Learning, Music & Arts Education, Secondary School Education, STEM

Presenting Author: Anja Küttel, Pädagogische Hochschule Freiburg, Switzerland; **Co-Author:** Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland

It has been argued that a proper STEM education needs to be extended to arts education, primarily because of creative cognitive processes. In days of 21st century skills this becomes even more relevant. In this study we got access to 2300 student grades in Switzerland and were able to apply our research question: "How do arts subjects contribute to STEM education?" Our results derive from a 2300 lower-secondary school students sample and we found a positive canonical correlation between arts and STEM grades in Swiss students. It seems of preferred value to support technical design subjects in order to improve students' STEM performance. Yet, more practically speaking, these results seem to apply to those who are already at a good school grade level. Thus, the question arises what to do with students that have a rather weak performance. Also, we see that when the music grade is good, the decrease in the STEM grade is somewhat absorbed, indicating a music effect.

Session D 8

22 November 2023 16:10 - 17:40

Meeting Room 1

Workshop

Higher education

Building bridges between hampering and helping beliefs about blended learning!

Keywords: Beliefs and Conceptions of Teaching, Blended Learning, Higher Education, Practice-based Research (methodology)

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

Blended learning is high on the agendas of higher educational institutions to offer activating and student-centered education. It aims for higher student motivation, engagement, and achievement (i.e., De Bruijn-Smolanders & Prinsen, 2021). Deep-rooted teachers' beliefs determine whether, to what extent, in what way, and with what ambition they will work with these innovations (Gremmen & Van der Stappen, in press). What are your beliefs about blended learning? In this workshop, we firstly present the results of our study on helping and hampering teacher beliefs on blended learning. After this, you will interactively discuss about and reflect upon your own beliefs about blended learning with colleagues. By considering opposite beliefs and different perspectives, you are actively instigated to reason unbiased. Unbiased reasoning can help to make well-considered choices in general, and thus also when designing and implementing blended learning arrangements. Therefore, this workshop helps you to build bridges between various existing beliefs in your team about blended learning and stimulate more collaboration in your team on designing future-proof education for your students.

Building bridges between hampering and helping beliefs about blended learning!

Presenting Author: Suzan van Brussel, Avans University of Applied Sciences, Netherlands; **Presenting Author:** Mariola Gremmen, HAN University of Applied Sciences, Netherlands; **Co-Author:** Esther van der Stappen, Avans University of Applied Sciences, Netherlands

Blended learning is high on the agendas of higher educational institutions to offer activating and student-centered education. It aims for higher student motivation, engagement, and achievement (i.e., De Bruijn-Smolanders & Prinsen, 2021). Deep-rooted teachers' beliefs determine whether, to what extent, in what way, and with what ambition they will work with these innovations (Gremmen & Van der Stappen, in press). What are your beliefs about blended learning? In this workshop, we firstly present the results of our study on helping and hampering teacher beliefs on blended learning. After this, you will interactively discuss about and reflect upon your own beliefs about blended learning with colleagues. By considering opposite beliefs and different perspectives, you are actively instigated to reason unbiased. Unbiased reasoning can help to make well-considered choices in general, and thus also when designing and implementing blended learning arrangements. Therefore, this workshop helps you to build bridges between various existing beliefs in your team about blended learning and stimulate more collaboration in your team on designing future-proof education for your students.

Session D 9

22 November 2023 16:10 - 17:40

Meeting Room 4

Workshop

Primary education

Finding the fun in the FUNdamentals of Science

Keywords: Continuing Professional Development in Teachers, In-service Teacher Training, Inquiry Learning, STEM

Interest group: CLOUD 02 - Educators' professional development

The proposed workshop aims to disseminate the findings of and replicate the training materials from a STEM enhancement CPD program that was delivered to a group of 25 primary school teachers from Northern Ireland. During the CPD Program, data was collected from participants to establish levels of confidence in teachers when delivering STEM lessons. Data collected from the CPD training has been used as an approved cross border research project. Findings will be shared during the workshop and the presenter will welcome feedback. The aims of the workshop: To give a summary of the delivered CPD training To replicate

and showcase some of the elements of the CPD training. To enable attendees to engage in some of the practical elements of the CPD program. Provide a platform for peer review and feedback of the programme, potentially benchmarking it against similar programs from across Europe. Allow for feedback through an open discussion on the successes and challenges of the CPD program, and engage in a Q&A session with opportunity for critical reflection. This will provide the researcher with information from which she can make future adjustments to iterations of the program.

Finding the fun in the FUNDamentals of Science

Presenting Author:Beverley McCormick, Ulster University, United Kingdom; **Presenting Author:**Mairead Holden, Trinity College Dublin, Ireland

The proposed workshop aims to disseminate the findings of and replicate the training materials from a STEM enhancement CPD program that was delivered to a group of 25 primary school teachers from Northern Ireland. During the CPD Program, data was collected from participants to establish levels of confidence in teachers when delivering STEM lessons. Data collected from the CPD training has been used as an approved cross border research project. Findings will be shared during the workshop and the presenter will welcome feedback. The aims of the workshop: To give a summary of the delivered CPD training. To replicate and showcase some of the elements of the CPD training. To enable attendees to engage in some of the practical elements of the CPD program. Provide a platform for peer review and feedback of the programme, potentially benchmarking it against similar programs from across Europe. Allow for feedback through an open discussion on the successes and challenges of the CPD program, and engage in a Q&A session with opportunity for critical reflection. This will provide the researcher with information from which she can make future adjustments to iterations of the program.

Session E 1

23 November 2023 08:30 - 10:00

Meeting Room 6

Case study

Higher education, Secondary education

STEM In Different Contexts

Keywords: Beliefs and Conceptions of Learning, Chemistry Education, Game-based Learning / Gamification, Higher Education, Instructional Design and Instructional Strategies, Learning Analytics, STEM, Team Learning

Interest group: 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: Famke van Lieshout, Fontys University of Applied Science, Netherlands

Empowering to code a diverse population of future digital designers

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

Presenting Author:Ulrike Stam, Hogeschool van Amsterdam, Netherlands; **Co-Author:**Laura Benvenuti, Hogeschool van Amsterdam, Netherlands

Taking an action research approach, we redesigned a funding course on coding of a bachelor program on digital design. Our aim was to empower all our students, regardless of their background or expertise. We wanted to challenge experienced developers but also to enable novices to discover their enthusiasm for coding, and to design a course that is achievable for these students who consider coding as a necessary evil. By analogy with the (European) classification of ski slopes, we developed three tracks through the course: a gentle blue track, a more adventurous red track and an Olympic black track. The blue track and the red track were presented as equivalent in terms of content, the black track mainly consisted of follow-up materials. Students were free to choose the track they wanted to follow, each week. The teacher of the coding course, an educational consultant and data scientist were involved in the experiment. With the use of student data of their choice of ski slope, we assessed if this new approach suits the diverse student population better. Although we found limited differences between the results of students choosing blue and students choosing red, the overall performance of the course has increased significantly.

Implementing Problem-Based Instruction in a University Physics Course

Keywords: Beliefs and Conceptions of Learning, Higher Education, Instructional Design and Instructional Strategies, STEM

Presenting Author:May Lee, University of Groningen, Netherlands; **Co-Author:**Cormac Larkin, Zentrum für Astronomie, Astronomisches Rechen-Institut, Universität Heidelberg and Max-Planck-Institut für Kernphysik, Germany; **Co-Author:**Steven Hoekstra, Rijksuniversiteit Groningen, Netherlands

To address future societal challenges, students need 21st-century skills (e.g., problem-solving). These skills are mediated by their (epistemological) beliefs about the nature of scientific knowledge and practices. One instructional approach that can support the development of expert-like beliefs is problem-based instruction (PBI). We used surveys to examine how PBI implementation affected undergraduate students' beliefs about physics and learning physics at a Dutch university. From the course surveys (41%-74% response rates), many said they appreciated the interactions with peers and the use of scientific equipment with some expressing frustration due to technological difficulties. Responses to a validated survey on beliefs about physics and learning physics (28% response rate) showed shifts towards expert-like beliefs, especially for problem-solving confidence and making real-world connections. The low response rates may be due to a self-selection bias (e.g., likely from high-performing students) while no control group meant other factors could have contributed to our findings. One implication is that PBI may not be as beneficial for low-performing students since it requires them to view knowledge as complex and evolving rather than simple and fixed; this may also lead to low motivations to collaborate with peers, which is central to successful engagement with PBI.

Together We Stand, Divided We Fall: High-tech Instruments and Multimedia in Escape Rooms

Keywords: Chemistry Education, Game-based Learning / Gamification, STEM, Team Learning

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

«For it is not two doctors that associate for exchange, but a doctor and a farmer; or in general people who are different and unequal, but these must be equated», wrote Aristotle in his Nicomachean Ethics. Innovative ideas emerge in heterogenic communities. No science has developed intrinsically on its own. Moreover, our global crises cannot be solved without cooperation across different cultures and worldviews. The ability to work in a team, to deal with diversity and ambiguity, needs to be practiced early, ideally in school. The Berzelius project focuses on experiments with borrowable high-tech instruments to boost STEM capacities in secondary school. Around the instruments, an interdisciplinary team produces vibrant multimedia lab journals explaining theory, instrument, set-up etc. Moreover, the project offers teacher trainings and comprehensive support for Matura works. To foster collaboration and team spirit, we migrate our high-tech instruments in escape rooms (ERs). Intertwined with multimedia journals, we weave them into a web of puzzles and riddles that we condense into stunning stories. The participants need all their senses and must collaborate to set up instruments, solve riddles, redeem jokers, investigate, etc. In this case study, we present several ER scenarios that we brainstorm and discuss with participants.

Session E 2

23 November 2023 08:30 - 10:00

Conference Room

Poster Presentation

Early childhood education, Higher education, Secondary education

Problem Solving & Mathematics Education

Keywords: Artificial Intelligence, At-risk Students, Cognitive Skills & Development, Creativity, Early Childhood Education, Emotions and Emotional Development, Higher Education, In-service Teacher Training, Learning Analytics, Mathematics Education, Numeracy, Practice-based Research (methodology),

Pre-school Education / Kindergarten, Primary School Education, Problem Solving, Problem-based Learning, Secondary School Education, Statistics, STEM
Interest group: CLOUD 01 - Teacher education, CLOUD 07 - Research impact on school development, CLOUD 10 - Education for Sustainability, CLOUD 13 - Starting Researchers
Chairperson: Kerstin Angelika Zechner, Austria

On the Math Kangaroo Finland: Algebra and Number skills

Keywords: Mathematics Education, Numeracy, Statistics, STEM

Presenting Author: Neea Palojärvi, University of Helsinki, Finland; **Co-Author:** Mika Koskenoja, University of Helsinki, Finland; **Co-Author:** Anne-Maria Ernvall-Hytönen, University of Helsinki, Finland

The Math Kangaroo is one of the biggest international mathematics competitions. In Finland, the number of participants has been around 15 000 in recent years. In this research, we investigated what kind of differences are there between different topics among Finnish 4th–9th graders' performances in the Math Kangaroo Finland 2011, 2015 and 2019. This was done in two different ways: First, we calculated the proportion of correct answers in each topic. Secondly, we assigned zero points to incorrect answers, and then we counted the average number of points per problem in each topic. Different problems were worth 3–5 points. 4th–5th graders did better in algebra than in number each year but 6th–7th graders' weakest topic was algebra and 8th–9th graders' strongest one was number. Hence, may number skills predict algebra skills better than preliminary algebra skills? May concentrating more to number skills in early education improve algebra skills?

Competent at the start of mathematics education

Keywords: Higher Education, In-service Teacher Training, Mathematics Education, Primary School Education

Presenting Author: Jarise Kaskens, Hogeschool Windesheim en Radboud Universiteit Nijmegen, Netherlands; **Co-Author:** Janneke Marvelde, Hogeschool Windesheim, Netherlands

We examined how teacher factors -mathematical knowledge for teaching and self-efficacy- contribute to pre-service teachers' teaching behavior in mathematics lessons. Participants were 19 pre-service teachers in their last year of teacher training college. In this mixed method study we present the results of analyses of data: a multiple regression analysis was conducted with mathematics teaching behavior as the outcome variable. Independent variables were pre-service teachers mathematics test results (mathematical skills and mathematical knowledge for teaching), a questionnaire to self-assess their mathematical knowledge for teaching, and a questionnaire to measure pre-service teachers' self-efficacy with respect to the teaching of mathematics. A qualitative analysis was conducted of the 19 dynamic interviews that were held with the participating pre-service teachers. Results of the study show the relationships between teacher-related factors and pre-service teachers' mathematics teaching behavior. The dynamic interviews seem to provide opportunities for teacher trainers to identify and meet pre-service teachers needs to improve their mathematics teaching. Recommendations are made for the curriculum of primary teacher training college.

Analysis of emotions with AI software in creative problem solving with modular robotics

Keywords: Artificial Intelligence, Creativity, Emotions and Emotional Development, Problem Solving

Presenting Author: Margarida Margarida Romero, Université Côte d'Azur, France; **Co-Author:** Fabiola Alessandra Fick, Université Côte d'Azur, France; **Co-Author:** Lila Ibrahim, Université Côte d'Azur, France

In problem solving situations, emotions are part of an important perspective that is intertwined with perception, behaviour, and self-regulation towards the task goal. In this study, we focus on an ill-defined problem solving task that engages the participants in a complex situation in which different difficulties can lead to a diversity of emotions. We engage two participants in playing the CreaCube problem solving task twice and record their activity. Facial emotions are identified through the FaceReader program based on the Ekman framework of basic emotions. We study the correlation of the emotion frequencies based on FaceReader data with the scores of divergent thinking components (fluidity, flexibility, and originality) from the CreaCube task. We observe that the emotions identified by the FaceReader between the two participants are quite different. One of the participants mostly exhibits a sad emotional state, while the other mostly experiences an angry emotional state. Nevertheless, in terms of divergent thinking, the participants show similar results.

The association between WM and preschool literacy and numeracy skills in preterm born children

Keywords: At-risk Students, Cognitive Skills & Development, Early Childhood Education, Pre-school Education / Kindergarten

Presenting Author: Jorn Othmer, Ghent University, Belgium; **Co-Author:** Petra Warreyn, Ghent University, Belgium

In developed countries up to 10% of babies are born preterm. Preterm born children more often experience persistent delays in development, including weaker executive functioning. In addition, learning difficulties are often observed in elementary school. The current study investigates, among others, working memory (WM) and preschool numeracy and literacy skills in 5-year-olds born pre- and full-term. In a follow-up phase, the relationship with academic achievement will be assessed. Preliminary results based on 22 children show that WM and gestational age (GA) were not significantly related ($r: 0.17$, p -value: 0.45) in this sample. However, both GA (est: 0.77 , $p < 0.05$) and WM (est: 1.25 , $p < 0.001$) predicted early literacy skills significantly in a simple linear regression. For early numeral skills, only WM was a significant predictor (est: 1.05 , $p < 0.05$), while GA was not (est: 0.54 , $p = 0.24$). These preliminary results highlight the important role of WM in preterm born children. As data collection is ongoing, more elaborate results including other predictors and group comparisons will be presented at the conference. The potential implications of this study are significant, as better understanding the factors affecting preterm born children's academic achievement can lead to improved support in school.

Dynamic Time Warping on trajectories: characterizing behaviors for a creative problem solving task

Keywords: Creativity, Learning Analytics, Practice-based Research (methodology), Problem Solving

Presenting Author: Axel Palaude, Centre INRIA de l'Université de Bordeaux, France; **Co-Author:** Margarida Romero, Université Côte d'Azur, France

Creative problem solving (CPS) activities can enrich our understanding of learning by facilitating the observation of behaviors related to rather realistic learning mechanisms. Actions taken by an individual during a CPS task are situated in time, thus allowing to create time sequences of observations. Formal sequence analysis may allow us to overcome the limits of current observations of such activities, particularly temporal aspects in links with CPS strategies, as, e.g. in Computer-supported collaborative learning (CSCL) (Lämsä et al., 2021). In this study, we aim to develop a novel analysis approach on sequences based on the configurations of a game-based robotic activity consisting of assembling modular robotic cubes. This allows the creation of clusters of sequences of actions, characterizing different types of strategies. We base our work on CPS configuration identification analyzed in Romero et al. (2018) and Leroy et al. (2021) on the CPS activity named CreaCube in order to characterize a subject's individual task.

From our method, considering creative behavior in the Guilford (1967) sense, emerged in addition to clusters of sequences, corresponding to the categorization of subjects in terms of "general strategies", distinct unique adaptive behaviors, compatible with creativity (Amabile, 1996) or self-regulation (Hadwin et al., 2011) models.

A consideration about the relationship between Inquiry-Based Learning and Subject-Based Learning

Keywords: Primary School Education, Problem Solving, Problem-based Learning, Secondary School Education

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

From 2005 several local boards of education and schools in northeast district in Japan have played a central role in promoting inquiry-based learning under the concept of Education for Sustainable Development (ESD). In general, experiential learning and inquiry-based learning have been practiced on the integrated learning (cross curricular subject). Social educational institutions and University support their experiential learning and inquiry-based learning. Miyagi university of Education (MUE) has formed a consortium for the promotion of ESD in this district and set up opportunities to exchanges learning experiences across regions. However, it is not clear how the abilities of students acquired through inquiry-based learning are related to the "knowledge and skills", "cognitive abilities" acquired through subject based learning. This is a dilemma for teachers to have such question as "Even if you actively promote inquiry-based learning in integrated study (cross subject) learning time, inquiry-based learning will not lead to improvement in academic ability". To respond these questions, this

presentation, took up the data of national questionnaire survey of one local board of education which promote inquiry-based learning under the concept of ESD and investigated the correlation of academic ability and inquiry-based learning, and non-cognitive abilities by data analysis.

Session E 3

23 November 2023 08:30 - 10:00

Concourse

Case study

Higher education, Primary education, Vocational education

Practice-Based Research Methodology in Different Contexts

Keywords: Collaborative Learning, Creativity, Educational Effectiveness and Quality of Education, Higher Education, Inquiry Learning, Practice-based Research (methodology), Professional Development, Self-efficacy, Vocational Education

Interest group: CLOUD 01 - Teacher education, CLOUD 10 - Education for Sustainability, CLOUD 11 - Practice-based Research Methodology

Chairperson: Stefan T. Siegel, University of St.Gallen, Switzerland

Creativity in Teacher training - Experiences

Keywords: Creativity, Higher Education, Practice-based Research (methodology), Self-efficacy

Presenting Author:Hanneke Maassen, Aeres University of Applied Sciences Wageningen, Netherlands; **Presenting Author:**Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands

The context in which the pilot was realized, concerns teacher training in vocational subjects in the agricultural field (farming, landscaping, floral art) and related fields such as 'consumptive techniques' and 'services and products'. The training leads to a teacher qualification for these subjects in pre-secondary and secondary vocational education.

During conversations with students and teacher educators, it was found that teacher education is a language-intensive program. The question of how other qualities that students possess can contribute to the successful completion of the program and becoming a professional was the reason for this pilot. It was decided in 2020 to explore the added value of attention to creativity in our teacher training. This was done in three interventions, over two academic years, involving 136 students and 4 teacher trainers. The interventions included Creative research, Arts-Based Research and creative development. Data was collected through interviews, surveys, and group discussions and presented in process/result descriptions and student portraits. The results of the pilot program revealed that students who participated in the program experienced growth in their creative thinking, learned to systematically approach problems through Arts-Based Research, and developed self-confidence through an understanding of manufacturing processes.

Master educated teacher leaders in Dutch VET fulfil their role as leaders of inquiry teams

Keywords: Inquiry Learning, Practice-based Research (methodology), Professional Development, Vocational Education

Presenting Author:Jeroen Rozendaal, University of Applied Science Rotterdam Hogeschool Rotterdam, Netherlands; **Presenting Author:**Sara Albone, Aeres Hogeschool Wageningen, Netherlands; **Presenting Author:**Wilbert van der Heul, Skyward Learning Agency, Netherlands; **Presenting Author:**Kathinka van Doesum, mboRijnland - Practoraat Research Lab, Netherlands; **Presenting Author:**Niek van den Berg, Aeres University of Applied Sciences Wageningen, Netherlands; **Presenting Author:**Arjen Nawijn, Aeres University of Applied Sciences, Netherlands; **Co-Author:**Erica Wijnands-Pot, mboRijnland - Practoraat Research Lab, Netherlands

Our research-practice partnership (RPP) investigated how master-educated teachers in Dutch VET can position themselves and fulfil their role, so that their professional capital is well utilized. We proposed that these teachers become instigators of inquiry teams aimed at improving educational quality at their institutions. In this session, we will present findings of a co-creative multiple case study regarding the actions and accomplishments of six master-educated teacher leaders (MTLs) and their teams. As a RPP, we aim to serve practice and research equally. This was evident in our co-creative approach and the data collection process, whereby our instruments were also intended to help the MTL's practice. This resulted in idiosyncratic datasets per case. To obtain validated cross-case results, we used timeline interviews followed by a collaborative process of formulating interventions based on 'what works'. Within these interventions, we defined three themes: coaching inquiry-based teamwork, promoting organizational alignment and self-care. Within each theme, we sketched a continuum between actions useful to novice MTLs and/or in starting contexts with respect to inquiry-based teamwork, and additional actions pertaining to advanced MTL's in advanced contexts. In the session, we will discuss the implications of our findings, methodological issues, merits and challenges in co-creative interpretative research.

'Our Community/Our Space' - Enriching communities using LEGO (Shared Education, NI)

Keywords: Collaborative Learning, Creativity, Educational Effectiveness and Quality of Education, Practice-based Research (methodology)

Presenting Author:Beverley McCormick, Ulster University, United Kingdom; **Co-Author:**Roger Austin, Ulster University, United Kingdom

This case study will share the planning, delivery and reflections of a small proof of concept project that will take place with two primary schools who have been engaged in the Shared Education program in Northern Ireland. Shared Education is a program where schools from differing religious and political backgrounds work together in partnership on educational programs. Through this proof of concept project, pupils from these two schools will come together to, plan and build a shared Lego community (Lego blocks provided through the Lego Foundation). They will be encouraged to discuss the structural features of a (town/village) community, recognise the need for shared spaces for sustainability, and partake in naturally evolving conversations that demonstrate community cohesion and the ability to share resources. Lego bricks will form part of the shared experience for the participants, helping them to work together using materials that they are familiar with. After the planned event, teachers will be invited to share their opinions on the project and discuss viability for roll out as part of a larger research project. Note this project will take place in June 2023 and findings with initial impact from the project will be disseminated to the group.

Session E 4

23 November 2023 08:30 - 10:00

Meeting Room 4

Present & Discuss

Higher education, Primary education, Secondary education

Innovation In Education In Different Contexts

Keywords: 21st Century Learning, Cooperative Learning, Higher Education, In-service Teacher Training, Initial Teacher Education (Pre-service), Innovations in Education, Inquiry Learning, Practice-based Research (methodology), Primary School Education, Secondary School Education, Training and Development

Interest group: CLOUD 01 - Teacher education, CLOUD 10 - Education for Sustainability, CLOUD 11 - Practice-based Research Methodology

Chairperson: Egon Werlen, Swiss Distance University of Applied Sciences (FFHS), Switzerland

Theory-practice integration in reinforced school-university partnerships in Norway

Keywords: Initial Teacher Education (Pre-service), Innovations in Education, Inquiry Learning, Secondary School Education

Presenting Author:Minjeong Son, UiT The Arctic University of Norway, Norway; **Presenting Author:**Annelise Brox Larsen, UiT The Arctic University of Norway, Norway; **Co-Author:**Tove Holmbukt, Institute of Education and Pedagogy, Norway

This study investigates how pre-service students in a Norwegian teacher education program understand the role of theory in teaching practice and experience working in a strengthened school-university partnership in terms of linking theory and practice. The data are drawn from: 1) a reflection session in tripartite collaboration (students, university teachers and practice teachers) after a teaching trial, and 2) interviews with students who participated in this study. We argue

that working in a reinforced school-university partnership enhances learning opportunities for students in several ways: First, by bringing more focus on their own learning students become more "active" learners during teaching practice. Secondly, teaching trials in close tandem with course work are experienced as beneficial as students have a better chance to understand the theory they put into authentic teaching practice. We further discuss some of the challenges in connecting theory and practice in teaching practice, among which include 1) students' uncertainty about how to make explicit reference to theory in their critical reflection on teaching, and 2) the lack of continuity of teaching trials throughout the course work. Based on these emerging challenges and our participants' input, suggestions are made for how to improve tripartite collaboration.

Environmental & Sustainability Education: Coteaching Science & English about and for our Environment

Keywords: Cooperative Learning, Initial Teacher Education (Pre-service), Innovations in Education, Secondary School Education

Presenting Author:Karen Kerr, Queen's University Belfast, United Kingdom; **Co-Author:**Jennifer Roberts, Queen's University, Belfast, United Kingdom

This project evaluated the planning and delivery of a unique application of an existing model of coteaching, published by one of the applicants (Kerr, 2019). In the model adopted for the current project, a Science expert and an English expert (both student teachers), brought separate expertise to co-plan, coteach and co-evaluate a series of lessons. This project had four overarching aims with regard to teaching and learning for the environment and sustainability in post-primary Science and English (for 11-14 year olds) to include opportunities to teach in this way, promotion of contact between different school departments, student teacher professional development and the production and trailing of classroom materials for the teaching of ESD. The project aims to: The project took place in various schools in Northern Ireland and the outcomes were measured through several methods to include a pre and post online questionnaire with pupils, student teacher reflective diaries and follow up interviews, pupil focus groups and interviews with colleagues in schools. Findings support the novel use of coteaching, across multiple outcome domains, for pupils, student teachers and Science and English school departments. In particular knowledge, understanding and pedagogical development were progressed with regard to teaching about and for our Environment.

Fitting a Square Peg into a Round Hole

Keywords: Higher Education, Innovations in Education, Practice-based Research (methodology), Training and Development

Presenting Author:Andrea Prince van Leeuwen, Inholland University of Applied Sciences, Netherlands; **Co-Author:**Sanne Hille-Knoeste, Inholland University of Applied Sciences, Netherlands; **Co-Author:**Guido Stompff, Inholland University of Applied Sciences, Netherlands

During the last decade design thinking, design research, and design-based research have grown in popularity and are being embraced by higher education institutions. In this study, it is referred to as design inquiry (DI). These approaches are no longer being considered as methods for only designers/creatives. DI is embraced as a branch of research with its own methods (Koskinnen,2011), tools (Sanders & Stappers,2012) and epistemology (Dixon,2019; Stompff,2022). DI differs from classical approaches in that it incorporates design and design artefacts as an essential part of the research. However, DI is quite difficult to implement in a non-design environment with "non-design trained academics teaching design" (Wrightley & Mosley,2022 p.76.). This study aims to find success and fail factors when introducing DI in a non-design university context. Participatory DI research has been conducted in which 74 Applied Science educators participated in iterative focus groups, observations, and/or expert interviews. Results indicate that educators struggle with emergent standards and fear of assessment and become uncertain due to groundlessness. The main conclusions suggest that when adopting DI in education, providing non-design coaches guidance, methods and reflecting on what happens through supervision enables them to navigate the fog, balancing openness and structure.

Where does truth come from? Reflection about (mis)information through philosophical dialogue

Keywords: 21st Century Learning, In-service Teacher Training, Innovations in Education, Primary School Education

Presenting Author:Christel BALCK, Odisee University College, Belgium; **Co-Author:**Jelle De Schrijver, Antwerp University & Odisee university college, Belgium; **Co-Author:**Eef Cornelissen, Odisee University College, Belgium

Media literacy is more than learning to recognize and use (online) media. It also includes critical reflection on media and information. 'Philosophy with children' challenges young people to explore presuppositions and arguments under the guidance of a dialogue facilitator. Based on this method, we develop a teaching method using an education-design research design. We formulate design criteria to stimulate critical thinking about media and information among 10- to 12-year-olds through philosophical dialogue. This culminates in a methodology with thinking exercises, philosophical stories and reflective questions. After a try-out in in-service teacher training, we reworked the teaching method and introduced it in 12 primary school classes. Design criteria entail the role of concrete thinking exercises, the relevance of focusing on abstract concepts such as truth and the opportunity to work with stories to engage pupils. Interviews with teachers chart the observed impact of the approach on pupils' engagement and reflections. Teachers point to pupils' high levels of engagement and the extensive argumentation pupils develop around knowledge and truth. Teachers are enthusiastic about implementing the approach in their own teaching practice, but express a need for further support in dealing with student statements that tend towards truth relativism.

Session E 5

23 November 2023 08:30 - 10:00

Meeting Room 7

EAPRIL Cloud Spotlight Session

Higher education

Evaluation of Pre-Service Teachers' Inclusion Perceptions and Practices in Teaching Practicum

Keywords: Diversity, Equality / Education for All, Inclusivity, Initial Teacher Education (Pre-service)

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

The term inclusion refers to the human rights which should be ensured and facilitated by education. Inclusive education, based on the social inclusion theory, provides an environment for each individual regarding their needs in the frame of human rights by uniting, reconciling and reinforcing respect. Inclusive education aims to reduce exclusion as well as discrimination. With semi-structured interviews and document analysis, this qualitative case study aims to investigate the opinions of pre-service teachers (n=7) about inclusive education before and after the intervention. Additionally, to what extent pre-service teachers integrate inclusive education into their teaching practicum is aimed to be studied via checklists. To provide rich data, lesson plans and teaching materials used by the pre-service teachers throughout their teaching practicum, and self-evaluation paper written after each practicum are also investigated.

The data is analysed with content analysis. The preliminary results showed that pre-service teachers were unclear about inclusion before the intervention, and they had no idea what their course content might be like. Post-test participants reported that their inclusion perspective was limited before the lesson, but they gained a broader perspective after the intervention and felt more responsible afterward.

Evaluation of Pre-Service Teachers' Inclusion Perceptions and Practices in Teaching Practicum

Presenting Author:Eylül Balâ Altunay, Kocaeli University, Türkiye; **Co-Author:**Sibel İnci, Kocaeli University, Türkiye; **Co-Author:**Anthony Thorpe, University of Roehampton, United Kingdom

The term inclusion refers to the human rights which should be ensured and facilitated by education. Inclusive education, based on the social inclusion theory, provides an environment for each individual regarding their needs in the frame of human rights by uniting, reconciling and reinforcing respect. Inclusive education aims to reduce exclusion as well as discrimination. With semi-structured interviews and document analysis, this qualitative case study aims to investigate the opinions of pre-service teachers (n=7) about inclusive education before and after the intervention. Additionally, to what extent pre-service teachers integrate inclusive education into their teaching practicum is aimed to be studied via checklists. To provide rich data, lesson plans and teaching materials used by the pre-service teachers throughout their teaching practicum, and self-evaluation paper written after each practicum are also investigated.

The data is analysed with content analysis. The preliminary results showed that pre-service teachers were unclear about inclusion before the intervention, and they had no idea what their course content might be like. Post-test participants reported that their inclusion perspective was limited before the lesson, but they gained a broader perspective after the intervention and felt more responsible afterward.

Session E 6

23 November 2023 08:30 - 10:00

Board Room

EAPRIL Cloud Spotlight Session

Higher education

Jump in! Round table session on research dilemmas by starting practice-based researchers

Keywords: Lifelong Learning, Peer Interaction / Learning, Practice-based Research (methodology), Training of Young Researchers

Interest group: CLOUD 13 - Starting Researchers

In this Cloud 13 spotlight session, a series of 4 round tables of 15 minutes each will be held. As this is an 'open session', starting practice-based researchers can 'jump in' and share, test and explore their current research challenges, dilemmas and uncertainties with their peers. The round tables are being supervised and guided by the cloud coordinators and experienced practice-based researchers from the EAPRIL network. The session offers participants a low threshold opportunity to interact, explore, and present; deepen their knowledge on practice-based research methodology and embrace the uncertainty on their way into becoming a more experienced practice-based researcher.

Jump in! Round table session on research dilemmas by starting practice-based researchers

Presenting Author: Pieter Seunke, Aeres University of Applied Sciences Wageningen, Netherlands; **Presenting Author:** Ellen Rohaan, Fontys University of Applied Sciences, Netherlands

In this Cloud 13 spotlight session, a series of 4 round tables of 15 minutes each will be held. As this is an 'open session', starting practice-based researchers can 'jump in' and share, test and explore their current research challenges, dilemmas and uncertainties with their peers. The round tables are being supervised and guided by the cloud coordinators and experienced practice-based researchers from the EAPRIL network. The session offers participants a low threshold opportunity to interact, explore, and present; deepen their knowledge on practice-based research methodology and embrace the uncertainty on their way into becoming a more experienced practice-based researcher.

Session E 7

23 November 2023 08:30 - 10:00

Meeting Room 5

Present & Discuss

Higher education, Primary education, Vocational education

Learning In A Digital Era: Technology Enhanced Learning

Keywords: 21st Century Learning, Curricula, Higher Education, Innovations in Education, Language Education, Metacognition and Metacognitive Learning, Primary School Education, Reading, Secondary School Education, Technology Enhanced Learning, Vocational Education, Well-being & Engagement

Interest group: CLOUD 01 - Teacher education, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning

Chairperson: Kristóf Lakatos, University of Szeged, Hungary

Collective culture – a source for well-being in (educational) organizations

Keywords: 21st Century Learning, Technology Enhanced Learning, Vocational Education, Well-being & Engagement

Presenting Author: Sirpa Laitinen-Väänänen, JAMK University of Applied Sciences, Finland; **Co-Author:** Eila Burns, JAMK University of Applied Sciences, Jyväskylä, Finland; **Co-Author:** Riikka Michelsson, Jyväskylä University of Applied Sciences, Teacher Education College, Finland

Digitalisation has changed education practices having a strong influence on vocational education and training (VET). Currently, teachers' work is a combination of remote online work and in-person collective meetings and teaching sessions. Interaction has been found to be challenging in online and hybrid environments as non-verbal communication and interaction are limited when working in online platforms. Multi-location and online work connected to interactional challenges raise the question of the status of collective teacher culture. This study aims to explore the collective teacher culture and the online interaction among VET school teachers and other employees. The research question was: What do VET school staff members talk, when they discuss the collective culture and online interaction? Data was collected from ten recorded small group discussion sessions among ten vocational school employees (n=59). After transcribing and abductive content analysis the results revealed that participants reminisced the time before or during pandemic. They compared working online with working in-person, their similarities, and differences. In addition, they compared the positive and negative sides in online working. It was postulated that the collective teacher culture is in redefining phase and employees seem to be in liminal space, where new working practices needs to jointly develop.

Attention Please! Digital Literacy in Primary Education Not Receiving Sufficient Attention

Keywords: 21st Century Learning, Curricula, Primary School Education, Technology Enhanced Learning

Presenting Author: Bas Kurver, HAN University of Applied Sciences, Netherlands; **Presenting Author:** Tineke Paas, Hogeschool van Arnhem en Nijmegen/HAN University, Netherlands; **Co-Author:** Carolien Van Rens, HAN University of Applied Sciences, Netherlands; **Co-Author:** Frank Willems, HAN University of Applied Sciences, Netherlands; **Co-Author:** Bas Elsendoorn, Hogeschool arnhem en nijmegen, Netherlands; **Co-Author:** Marloes Timmermans, HAN University of Applied Sciences, Netherlands

The current generation of children is growing up in a world where technology is increasingly pervasive, impacting their personal lives and future careers. Therefore, it is important to teach children how to use digital tools and technologies, helping them to navigate the digital world and develop skills in communication, collaboration, information finding and storage, and critical thinking about digital media. In the Netherlands, digital literacy is about to become a mandatory part of the curriculum, but there are several obstacles to overcome, including the need to establish a common language around what digital literacy entails, and the skills and knowledge involved. To effectively integrate digital literacy into the broader curriculum, it is crucial to view it as a cross-curricular theme with a continuous learning trajectory that covers all necessary skills. However, our research found that digital literacy in primary education is not receiving sufficient attention, as only a quarter of teachers regularly pay attention to the development of their students' ICT literacy. Furthermore, there are few teachers who indicate that they possess sufficient competencies in this area, and there is a lack of a well-designed ICT literacy curriculum, resulting in a need for better attention to digital literacy.

The pedagogical possibilities of the use of extended reality in education

Keywords: Innovations in Education, Secondary School Education, Technology Enhanced Learning, Vocational Education

Presenting Author: Anne-Margreet Pol, Windesheim university of applied sciences (Zwolle), Netherlands; **Presenting Author:** Suzanne Pinkster, Hogeschool Windesheim, Netherlands; **Co-Author:** Herma Jonker, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** Michel Greven, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** Rick Damhuis, Hogeschool Windesheim, Netherlands; **Co-Author:** Frank Kimpe, Hogeschool Windesheim, Netherlands

The use of technological tools in secondary and vocational education is upcoming, but the efficiency and effectiveness of the technologies aren't clear yet. In order to gain insights into the effectiveness of the design of XR applications the design principles of CIMO (Denyer, Tranfield & Van Aken, 2008) can be used. The central question guiding the qualitative study of the use of educative, technological tools (n=10) was: For what reason and in what way is extended reality used in vocational technical education?

From the results, we concluded that XR applications are merely used for cognitive, motoric and efficiency reasons. Our cases also showed that possibly not all opportunities are utilized due to a one-sided application of the tools. In general, the design of the XR applications showed room for improvement with regard to the consistency between the CIMO elements. This calls especially for pedagogical knowledge and reasoning of those who are involved in designing and/or

using XR applications in education.

Our presentation explains in what way the CIMO elements can help teachers to use technology efficiently and effectively in education. In addition, this research provides a framework for future evaluative educational research on the use of XR tools in education.

Metacognitive Awareness of Reading Strategies (MARS) in Online Reading

Keywords: Higher Education, Language Education, Metacognition and Metacognitive Learning, Reading

Presenting Author: Helta Anggia, University of Szeged, Hungary

Metacognitive awareness of reading strategies (MARS) research has primarily focused on paper-based reading as opposed to online reading. Gender, preferred reading media, and English proficiency levels (EPL) account for disparities in MARS scores among students. However, the predictive potential of these variables on MARS is still debatable. MARS influences English reading comprehension, despite the scarcity of research that supports this theory. We examined the MARS of 1,412 Indonesian university students who participated in online reading activities. They were classified according to gender (female = 70.9% and male = 29.1%), reading media preferences (paper-based reading media = 11.3%, online-based reading media = 28.6%, and blended reading media = 60%), and English proficiency level (A1 = 28.4%, A2 = 47.8%, B1 = 5.2%, B2 = 14.6%, and C1 = 3.6%). The One-Way MANOVA results revealed gender ($F = 20.456, p = 0.05$), reading media preference ($F = 2.82, p = 0.05$), and EPL ($F = 5.988, p = 0.05$) differences in students' MARS scores. $R^2 = 0.060$ indicated that global, support, and problem-solving strategies were concurrently related to English reading comprehension scores. This study highlights the impact of the variables on MARS differences among students and reveals the relationship between MARS and English reading comprehension.

Session E 8

23 November 2023 08:30 - 10:00

Meeting Room 3

Workshop

Higher education

Beyond right and wrong - how to foster equity in relativist context?

Keywords: Continuing Professional Development in Teachers, Diversity, Educational Effectiveness and Quality of Education, Inclusivity

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

In order to move beyond polarized right-wrong discussions that tend to frustrate equity & inclusion ambitions, this workshop will help learners to articulate personal commitments in the light of a variety of perspectives. The aim and practical application of this workshop lies in the ability of learners to recognize and address microaggressions and conversation contributions that are rooted in stereotypical concepts. By confidently seizing such critical incidents as learning opportunities, in our classrooms or at our institutes, educators may become change agents and enablers of inclusive learning environments. The workshop is highly interactive; presentations and explanations of theoretical concepts are short and mainly take the form of debrief after having done an exercise or assignment. We will set a safe learning environment, discuss key terms and current DEI vocabulary and explore how people tend to develop preconceived ideas. We discuss some practical microaggression cases. The underlying model for acceptance other worldviews (DMIS) is explained in 'ultrashort' manner; we then jointly explore how we build commitment in relativist context. The group is 12-16 max.; we actively contribute and engage, our discussions are lively!

Beyond right and wrong - how to foster equity in relativist context?

Presenting Author: Marcel van der Poel, Hanze University of Applied Sciences, Netherlands

In order to move beyond polarized right-wrong discussions that tend to frustrate equity & inclusion ambitions, this workshop will help learners to articulate personal commitments in the light of a variety of perspectives. The aim and practical application of this workshop lies in the ability of learners to recognize and address microaggressions and conversation contributions that are rooted in stereotypical concepts. By confidently seizing such critical incidents as learning opportunities, in our classrooms or at our institutes, educators may become change agents and enablers of inclusive learning environments. The workshop is highly interactive; presentations and explanations of theoretical concepts are short and mainly take the form of debrief after having done an exercise or assignment. We will set a safe learning environment, discuss key terms and current DEI vocabulary and explore how people tend to develop preconceived ideas. We discuss some practical microaggression cases. The underlying model for acceptance other worldviews (DMIS) is explained in 'ultrashort' manner; we then jointly explore how we build commitment in relativist context. The group is 12-16 max.; we actively contribute and engage, our discussions are lively!

Session E 9

23 November 2023 08:30 - 10:00

Minor Hall

Roundtable

Higher education, Secondary education, Vocational education

Equal Opportunities in Education

Keywords: At-risk Students, Creativity, Culture and Education, Diversity, Educational Policy, Equality / Education for All, Medical & Health Education, Organisation of Educational Research, Professional identity, Secondary School Education, Vocational Education, Workplace Learning

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

Chairperson: Bob Koster, Fontys University of Applied Sciences, Netherlands

Combating youth unemployment in vocational education: An Evaluation

Keywords: At-risk Students, Educational Policy, Organisation of Educational Research, Vocational Education

Presenting Author: V Schuurmans, Friesland College, Netherlands

Despite a long period of decline in 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. Researchers of CINOP-ECBO and partners from two vocational education institutions are investigating four approaches that have been implemented in their schools. The main research question in this study is: What are the successful mechanisms of the implemented approaches at the two vocational education institutions that may help to reduce youth unemployment? Through focus group interviews with project leaders, executive coaches, policymakers, and board members, and separately with students, policy theories are developed in the form of context, interventions, mechanisms, and outcomes configurations (CIMOs). An analysis is made of all the collected interview data in order to understand what active CIMO elements in the approaches are and whether they are universal or specific to a context or approach. The knowledge gained from this study will be used to work in a more evidence-informed way in education. This study began in September 2022 and will conclude in February 2024.

Non-English language practice opportunities for student nurses in UK pre-registration nursing

Keywords: Culture and Education, Medical & Health Education, Professional identity, Workplace Learning

Presenting Author: Cassia Forty, De Montfort University, United Kingdom; **Co-Author:** Jemma Lockwood, De Montfort University, United Kingdom; **Co-**

Author: Natalie Tyers, De Montfort University, United Kingdom

In the UK, pre-registration nurses are required to complete 2300 hours of practice experience in clinical and social care placements. Clinical and social care environments exist where English is not routinely used, in favour of service users with limited or no English proficiency. This roundtable aims to discuss a project in development under which student nurses possessing additional language proficiencies may be 'matched' to placements that primarily or solely use their language(s), thereby facilitating additional learning opportunities. Whilst cultural humility and diversity in professional identity are increasingly acknowledged

priorities in practice education, it is not evident that a project like this has been undertaken before. The team behind it are therefore keen to widen participation in the planning and implementation phases before sharing their findings at the conclusion of the pilot, planned for early 2024.

Portraying schools for all: the use of photovoice to recreate the complexity of educational equity

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

Presenting Author:Katrien Hermans, University of Hasselt, Belgium; **Co-Author:**Liesbet Saenen, Universiteit Hasselt, Belgium; **Co-Author:**Elke Emmers, Universiteit Hasselt, Belgium

Inclusive education and educational equity are taking a prominent role in policy agendas. Despite the fact that educational equity is constantly stressed, there is little visibility of practical examples of good practices and the specific factors contributing to this success. The purpose of the present study is twofold. The first aim of this study is to draw up portraits of good school practices in terms of educational equity. The second aim is to explore how the research method of photovoice can be used to obtain the best possible representation of the complex and dynamic reality of educational equity. A multiple case study will be designed, in which qualitative data will be brought together to identify the active drivers of good educational practices in terms of educational equity. Each school practice will represent a single case, which will be thoroughly thematically analysed. Afterwards, a cross case analysis will be carried out. This round table aims at evaluating and discussing the proposed format of the study, the possible challenges and barriers this study might face, and how to proactively cope with them.

Session E 10

23 November 2023 08:30 - 10:00

Meeting Room 1

Workshop

Higher education

The island of Curriculum Design Innovation

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

Interest group: CLOUD 02 - Educators' professional development

Innovating curriculum in a nonlinear way with multi stakeholders: for some a dream come true, for other it feels more like a nightmare. Yet, within education it does not bear fruit to just innovate with the ones in favour of the change. We need everyone in the system to give their perspectives and thus add value to the new curriculum. Dialogue and sharing ones feelings, thoughts and perspectives turns out to be vital in curriculum design using the 'expedition' innovation strategy of Williams & Parr (2004, modified by Coppoolse, 2018). The aim of this workshop is to help this process by designing the landscape of innovation together. And thus let the participants: Experience the power of drawing an innovation landscape together Experience the power of visualisation of the process of innovation. Inspire others to repeat such a workshop within their field of practice to foster dialogue in difficult transitions. After an introduction and a more innovating way of empathy mapping, participants will design - in several prototype cycles - their 'landscape of innovation' using felt pens and large white (foam)boards. At the end, each group will present their landscape and reflect on the learnings of the workshop.

The island of Curriculum Design Innovation

Presenting Author:Manon Joosten, Inholland University of Applied Sciences, Netherlands; **Co-Author:**Remco Coppoolse, Utrecht University of applied science, Netherlands

Innovating curriculum in a nonlinear way with multi stakeholders: for some a dream come true, for other it feels more like a nightmare. Yet, within education it does not bear fruit to just innovate with the ones in favour of the change. We need everyone in the system to give their perspectives and thus add value to the new curriculum. Dialogue and sharing ones feelings, thoughts and perspectives turns out to be vital in curriculum design using the 'expedition' innovation strategy of Williams & Parr (2004, modified by Coppoolse, 2018). The aim of this workshop is to help this process by designing the landscape of innovation together. And thus let the participants: Experience the power of drawing an innovation landscape together Experience the power of visualisation of the process of innovation. Inspire others to repeat such a workshop within their field of practice to foster dialogue in difficult transitions. After an introduction and a more innovating way of empathy mapping, participants will design - in several prototype cycles - their 'landscape of innovation' using felt pens and large white (foam)boards. At the end, each group will present their landscape and reflect on the learnings of the workshop.

Award Session 1

23 November 2023 10:20 - 11:20

Assembly Hall

Best Practice-Based Research Award

Early childhood education, Higher education, Secondary education

Best Practice-Based Research Award 2023 Session

Keywords: Collaborative Learning, Educational Effectiveness and Quality of Education, Equality / Education for All, In-service Teacher Training, Initial Teacher Education (Pre-service), Instructional Design and Instructional Strategies, Knowledge Building and Development, Practice-based Research (methodology), Professional Development, School Development, Secondary School Education

Interest group: CLOUD 07 - Research impact on school development, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Emmy Vrieling, Open University of the Netherlands, Netherlands

Sustainable improvement and strong results based on true partnership between research and practice

Keywords: Collaborative Learning, Educational Effectiveness and Quality of Education, Instructional Design and Instructional Strategies, Knowledge Building and Development

Presenting Author:Eva Siljehag, Department of Special Education, Sweden; **Presenting Author:**Mara Westling Allodi, Stockholm University, Sweden;

Presenting Author:Katja Persson, Stockholm University, Sweden; **Presenting Author:**Camilla Suarez, Stockholms university, Sweden; **Presenting**

Author:Christina Törnsäter, Stockholms universitet, Sweden

Abstract

The study departed both from needs from practice and evidence from research. Teachers and special educators in Early Childhood Education have called for methods to support play interaction and language skills, in particular for additional language learners. A collaboration network between researchers and practitioners was established and some methods - Play Time/Social Time (PT/ST) and Dialogic Book Reading (DBR) - were tested and discussed. The principals were involved and supported the organization; the practitioners participated actively as members of the project group. In 2019 the Book Reading intervention started with a cluster randomized trial; the play intervention started with case studies. In 2019, 13 preschools participated, and in 2020, 20 preschools. The results show that the children increased their vocabulary after DBR and their social play after PT/ST. Important components were the collaboration and responsiveness in training and coaching. The study has employed a three-step model: a first phase of training and piloting; a phase of periodized intervention; a third phase in which the practitioners become mentors for their colleagues. The methods PT/ST and DBR have been adopted in the practice, based on the practitioners' positive evaluations; the implementation model is used to spread the innovation to new settings.

In Search for Significance: The Change Laboratory interventions with adolescent students

Keywords: Collaborative Learning, Practice-based Research (methodology), School Development, Secondary School Education

Presenting Author:Pauliina Rantavuori, Tampere University, Finland; **Co-Author:**Yrjö Engeström, University of Helsinki, Finland; **Co-Author:**Piia Ruutu, University of Helsinki, Finland; **Co-Author:**Maria Tapola-Haapala, University of Helsinki, Finland

Our research project, *In Search for Significance: Fostering Movement across the Worlds of Adolescents*, aims to identify and test ways in which adolescents can find and cultivate significance in their lives, understood as commitments and actions that connect the adolescents' personal interests with activities and projects for a just and equitable world. The project was implemented with the help of the Change Laboratory (CL) intervention method. In the research project, 32 eighth-grade students from two schools in Finland worked on long-term projects with the support of researchers, school staff, and external experts during two school years. The CL is a method for participatory analysis and design based on the cultural-historical activity theory and the theory of expansive learning. The CL sessions were conducted within regular school hours, but the students selected, designed, and implemented the topics, contents, and means of the 11 projects. The findings show that adolescent students have much more potential that may not normally be noticed at school. Adolescents can plan and carry out challenging projects significant to themselves and to the broader society. Allowing students to create their own projects has important potential for developing school and students' opportunities to influence issues they find significant.

Promoting teacher's agency for social justice and educational equality

Keywords: Equality / Education for All, In-service Teacher Training, Initial Teacher Education (Pre-service), Professional Development

Presenting Author: Marijke Van Vijeijken, HAN University of Applied Sciences, Netherlands; **Co-Author:** TAMARA van Schilt-Mol, Hogeschool van Arnhem en Nijmegen, Netherlands; **Co-Author:** Linda van den Bergh, Fontys Opleidingscentrum Speciale Onderwijszorg, Netherlands; **Co-Author:** Ron Scholte, Radboud University, Netherlands; **Co-Author:** Eddie Denessen, Radboud University, Netherlands

This presentation reports on the design and the findings of an evaluation study of a professional development program (PDP) to promote teachers' agency for social justice. Fourteen primary school teachers who were enrolled in a Master of Education program participated in the study. After attending five workshops at the university, they completed an individual reflection and an open-ended questionnaire and participated in focus group interviews. Thematic analysis was used to code manifestations of agency (e.g., commitment, initiatives). The PDP did contribute to teachers' agency for social justice. Relevant conditions for promoting teachers' agency were determined. The main three conditions were: (1) provide a wide range of content and learning activities with sufficient time for teachers to become familiar with social justice and educational equality terms and theories, (2) teach evidence-based and evidence-informed knowledge about practical educational equality interventions and (3) provide tools and strategies to start a dialogue about educational equality in the school and let teachers experiment in a "safe" context of training sessions. By evaluating the PDP, we have contributed to knowledge about which elements are essential for training aimed at developing agency for social justice. Activities were conducted to implement the findings in the regular teacher training.

Keynote Speech 1

23 November 2023 11:25 - 12:25

Assembly Hall

Keynote

Evidence-based policy and practice: where are we now and where are we going?

Keywords: Curricula, Educational Effectiveness and Quality of Education, Educational Policy, School Development

Interest group:

Chairperson: Essi Ryymin, Häme University of Applied Sciences, Finland

In recent years there has been a growing emphasis on evidence-based practice in education. But what does this actually mean for educators, and do we really have the evidence? In this paper I will look at the development of EBP over the past decades, discuss the state of our evidence and research, including the pitfall of EBP, and make some proposals for a way forward.

Evidence-based policy and practice: where are we now and where are we going?

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

In recent years there has been a growing emphasis on evidence-based practice in education. But what does this actually mean for educators, and do we really have the evidence? In this paper I will look at the development of EBP over the past decades, discuss the state of our evidence and research, including the pitfall of EBP, and make some proposals for a way forward.

Session F 1

23 November 2023 13:10 - 14:40

Conference Room

Poster Presentation

Higher education, Primary education, Secondary education, Vocational education

Technology Enhanced Learning in Different Contexts

Keywords: 21st Century Learning, Beliefs and Conceptions of Teaching, Biology, Cognitive Skills & Development, Curricula, Game-based Learning / Gamification, Higher Education, Innovations in Education, Leadership Development, Learning and Neuroscience, Primary School Education, Problem Solving, Professional Development, Research-based Learning, Secondary School Education, Technology Enhanced Learning, Vocational Education

Interest group: CLOUD 01 - Teacher education, CLOUD 02 - Educators' professional development, CLOUD 06 - Learning in Digital Era: Technology Enhanced Learning, CLOUD 12 - Leadership in Education, CLOUD 13 - Starting Researchers

Chairperson: Vesna Belogaska, IRIS Connect, United Kingdom

Teaching with digital biology: Cooperation manipulating sequences and 3D models

Keywords: 21st Century Learning, Biology, Secondary School Education, Technology Enhanced Learning

Presenting Author: François Lombard, University of Geneva, Switzerland; **Co-Author:** Julien Da Costa 2, University of Geneva, Switzerland; **Co-Author:** Laura Weiss, University of Geneva, Switzerland; **Co-Author:** Daniel K. Schneider, University of Geneva, Switzerland

In (Blinded) schools are required to teach digital skills. We identified three types of digital education skills (DES): new approaches to building or validating knowledge (DES A), critical-thinking skills (DES B), new didactic methods (DES C). Building and discussing models is a core scientific practice. Digitisation of biology and affordable 3D printers opens unprecedented opportunities for classroom activities, allowing students to manipulate tangible models and practice these skills.

This project delivers a platform offering 25 technical step-based, classroom-tested scenarios. They can help teachers and learners access and use authentic data to address difficult learning issues such as evolution or the form-function problem, by discussing evidence from research and manipulating physical, tangible models.

The students handled technical steps easier than expected, allowing discussions to focus on biological questions, and difficulties such as drawing from different models for explanation. Manipulation and use of authentic research data revealed conceptual gaps in student understanding and provide evidence for teacher feedback to guide students towards better mental models.

Results confirm feasibility of the scenarios and teacher acceptance of pedagogy-free, less prescriptive scenarios. They open new educational strategies based on authentic data embodied in material objects and databases. their alignment with the educational reforms of the discipline.

Digital Literacy: Teachers' Awareness?

Keywords: 21st Century Learning, Curricula, Primary School Education, Professional Development

Presenting Author: Joost Peeters, Fontys University of Applied Science, Netherlands; **Co-Author:** Naomi Mertens, Fontys MLI, Netherlands

From September 2023, digital literacy competencies become mandatory in every Dutch primary school's curriculum. For Dutch primary schools this means that

schools need to revise their curricula and add digital literacy competencies to their learning goals. Digital literacy, in the Netherlands, is described in four subdomains: Computational thinking, Basic practical IT skills, Digital information skills and Media literacy. In this inquiry one Dutch primary school evaluated the use of digital tools in the classroom and the extent to which teachers actually used these tools to support students' digital literacy competencies. Results showed that although many of the available tools were used, teachers used them merely as an aid to reach learning goals in traditional subjects (e.g. Mathematics, Language) instead of developing students' digital literacy. This inquiry is a first step in a research project that is aiming for a collaborative curriculum re-design in order to integrate digital literacy into the current curriculum.

Digitalization in Education: Competencies and Challenges in Teaching with and about ICT

Keywords: 21st Century Learning, Beliefs and Conceptions of Teaching, Research-based Learning, Vocational Education

Presenting Author:Bas Elsendoorn, Hogeschool arnhem en nijmegen, Netherlands; **Co-Author:**Frank Willems, Hogeschool van Arnhem en Nijmegen (HAN), Netherlands; **Co-Author:**Carolien Van Rens, HAN University of Applied Sciences, Netherlands; **Co-Author:**Bas Kurver, HAN University of Applied Sciences, Netherlands; **Co-Author:**Marloes Timmermans, HAN University of Applied Sciences, Netherlands; **Co-Author:**Tineke Paas, Hogeschool van Arnhem en Nijmegen/HAN University, Netherlands

Digitalization can no longer be ignored in education. Giving digitization and ICT a place in education requires specific teaching skills. We developed an instrument to give insights into teaching with ICT. The instrument also shows the extent to which teachers are competent in organizing ICT-rich education and teaching about digitization in a well-thought-out way. In 2022, 32 institutions in secondary vocational education have used this instrument. More than 6,000 teachers completed the digital questionnaire. On the poster, we give an impression of the results. We focus on both teaching with ICT (didactic use of ICT) and teaching about ICT (educating students to become ICT-literate participants in society). We also show the relationship between training and teaching with ICT and about digitalization. Finally, the poster gives an impression of how the participating institutions receive feedback on their results.

A framework for leading educational innovation with technology in vocational and higher education

Keywords: Higher Education, Innovations in Education, Leadership Development, Technology Enhanced Learning

Presenting Author:Manon van Zanten, iXperium Centre of Expertise Teaching and Learning with ICT, Netherlands; **Presenting Author:**Dana Uerz, HAN University of Applied Sciences (UAS), Netherlands; **Presenting Author:**Mariola Gremmen, HAN University of Applied Sciences, Netherlands

Educational innovation with technology is a complex innovation: it requires innovative ways of teaching with new resources, which implies changing leadership competences. For example, educational leaders need to master ICT skills and professional skills to keep learning about educational innovations with technology. Currently, research conducted on leaders' competences for educational innovation with technology is generally focused on primary and higher education. For vocational education, a synthesis of the relevant competences is lacking. Therefore, the current research question is: what competences do educational leaders in vocational and higher education need to lead educational innovation with technology? These competences will be synthesized in a clear framework with main dimensions, subdimensions and underlying competences, in an iterative process of literature review and validation sessions with experts and practitioners. The framework supports educational leaders in reflecting on their current competence level and their professional learning needs. Moreover, the framework can elevate innovations in the organization by means of a conversation starter regarding the organization's ambitions and the required professionalization for the required development of needed competences.

The Impact of Digital Escape Games on Brain Activity: A Study of Hippocampal Theta Oscillations

Keywords: Cognitive Skills & Development, Game-based Learning / Gamification, Learning and Neuroscience, Problem Solving

Presenting Author:Thomas Frösig, Universität Nice Sophia Antipolis, Germany

It has been well established in the literature that hippocampal theta oscillations play a significant role in learning, notably in supporting memory encoding, as well as retrieval. And because these oscillations can be triggered by visually exploring a novel environment, which is the core gameplay of digital escape games, this pilot study divided five healthy adults (age 23-53) into three groups: (i) a control group reading a text on a computer screen, (ii) a group playing a digital escape game and (iii) a group playing a first-person shooter game. During the experiment the participants brain activity was measured with Electroencephalography (EEG), focusing on hippocampal theta oscillations. The participants in group one and three showed no significant increase in hippocampal theta oscillations, while one participant in group two showed a clear increase of activity in theta band during the experiment. This data shows a promising direction and encourages the further investigation of the question whether hippocampal theta oscillations can be triggered by playing digital escape games, and thus be used as digital tool to enhance learning, specifically memory encoding and retrieval.

Promoting explanatory skills through simulated instruction in a virtual reality classroom

Keywords: Innovations in Education, Professional Development, Technology Enhanced Learning, Vocational Education

Presenting Author:Chris Mayer, University of Mannheim, Germany; **Co-Author:**Julia Derkau, University of Mannheim, Center for Teacher Education and Educational Innovation, Germany; **Co-Author:**Juergen Seifried, University of Mannheim, Germany

The research project pursues the active promotion of professional competencies of future teachers at vocational schools with the support of virtual reality (VR). In particular, the focus is on explaining economic content as a future core activity of teachers, for example, by simulating classroom discussions for practice purposes in a VR classroom. We address the following research question: To what extent does the simulation of classroom discussions in a VR classroom enhance future teachers' ability to explain economic content? A pre-programmed small steps instructional method of development by teacher questions was embedded in a virtual classroom as a scenario to answer the research question. The scenario for classroom discussion focuses on the economic topic of demand shifting, which is currently implemented in a course with master students of economic and business education. We expect the promotion of professional competencies among the prospective teachers, foremost explanatory and reflection skills. Such a result could be attributed to a highly immersive experience and increased interaction in VR. If so, we would suggest using VR simulation-based learning environments for training purposes in educational practice.

Session F 2

23 November 2023 13:10 - 14:40

Concourse

Roundtable

Higher education, Secondary education, Vocational education

Beliefs And Concepts Of Teaching

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Collaborative Learning, Continuing Professional Development in Teachers, Higher Education, Instructional Design and Instructional Strategies, Interaction and Discourse in Education, Self-regulation and Self-regulated Learning, Teacher Thinking, Teaching Approaches

Interest group: CLOUD 02 - Educators' professional development, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being

Chairperson: Mara Westling Allodi, Stockholm University, Sweden

To a collective learning culture with teenagers in challenging educational contexts

Keywords: Beliefs and Conceptions of Learning, Beliefs and Conceptions of Teaching, Collaborative Learning, Self-regulation and Self-regulated Learning

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

Higher education teachers' knowledge about effective instructional strategies: What do they know?

Keywords: Beliefs and Conceptions of Teaching, Continuing Professional Development in Teachers, Higher Education, Instructional Design and Instructional Strategies

Presenting Author:Guus Lambert, Zuyd University of Applied Sciences, Netherlands; **Presenting Author:**Hanneke Theelen, Zuyd University of Applied Sciences, Netherlands

Research and practice has shown that some higher education teachers have insufficient knowledge about what is theoretically known (and true) about effective teaching, including knowledge about effective instructional strategies, and the skills to apply these strategies into educational practice (e.g., Korthagen, 2017). As a teacher it is important to master this knowledge and to apply this in daily practice, in order to positively affect student learning (e.g., Darling-Hammond, 2006). In this study, we focus on the development of teachers' knowledge (application) of effective instructional strategies based on principles derived from instructional design frameworks within the field of cognitive psychology (e.g., cognitive load theory, desirable difficulties framework). Educational design research is proposed as research method and this study covers an analysis and exploration of the literature and educational practice with the aim of answering the following sub-questions through a literature review and questionnaire: What are evidence-based cognitive principles underlying effective instruction in the context of higher education according to literature? What knowledge do teachers have about effective instructional strategies? To what extent do teachers deliberately or unconsciously apply these cognitive principles underlying effective instruction already in daily practice?

Establishing a New Didactic Contract: Exploring Influencing Factors

Keywords: Beliefs and Conceptions of Teaching, Interaction and Discourse in Education, Teacher Thinking, Teaching Approaches

Presenting Author:Dorieke Swinkels-Veldt, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Rutger van de Sande, Fontys University of Applied Sciences, Netherlands

The establishment of a new didactic contract is an essential process in education that requires the involvement and commitment of both teachers and students. To ensure the success of this process, it is important to understand the factors that influence the establishment of a new didactic contract. In recent years, there has been an increased interest in transitioning from traditional, teacher-centered approaches to student-centered pedagogy. This makes knowledge of influencing factors useful and timely. The central research question is: How can teachers effectively establish a new didactic contract in secondary education? Our research design involves a qualitative approach that includes an analysis of the latest literature on the topic, as well as literature on possibly related concepts such as Buy-In, Devolution, and Self-Efficacy. It also involves the observation of some classes and a semi-structured interview with a focus group of students from those classes afterward. Preliminary results will be shared, and the relatedness of concepts will be discussed.

Session F 3

23 November 2023 13:10 - 14:40

Board Room

Roundtable

Higher education, Vocational education, Workplace learning

Workplace Learning In Different Contexts

Keywords: Higher Education, Innovations in Education, Internships, Leadership Development, Leadership Styles, Organisational Learning, Professional Development, Vocational Education, Workplace Learning

Interest group: CLOUD 01 - Teacher education, CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 12 - Leadership in Education

Chairperson: MACHIKO KOBORI, Hosei University, Japan

The use of an App to value and promote student teachers' learning at the workplace

Keywords: Innovations in Education, Internships, Professional Development, Workplace Learning

Presenting Author:Tom Adams, Fontys University, Netherlands

Research shows that unplanned and informal learning at the workplace can be meaningful for (student) teachers. Moreover, student teachers learn a lot from their colleagues at the workplace, who mostly have an informal role in student teachers' learning processes, as they are not student teachers' school based teacher educator. They do, however, have a great impact on student teachers' learning, as they can have a role as experts, coaches or role models for student teachers. In terms of student teachers' learning this is meaningful as it gives practical ideas an theoretical understanding of the practice. However, most attention in teacher education programs, is mainly focussed on formal offered activities and supervisory roles in the workplace. Still, this seems to be undervalued in teacher education programs and in workplace learning in general. Thus, as teacher educators, we might be potentially missing a lot. The central questions in this session are: how do we as teacher educators adequately utilize unplanned and/or informal but meaningful learning experiences?, Can becoming more aware of these valuable learning experiences at the workplace contribute to student teachers' competence development? And if so, does that perhaps lead to a faster route of professional development?

Factors affecting skill transfer to the workplace in a Master's program for professionals

Keywords: Higher Education, Professional Development, Vocational Education, Workplace Learning

Presenting Author:Lisa Marie Wintersberg, Technical University of Munich, Germany; **Presenting Author:**Anna Trikoili, Technical University of Munich, Germany; **Presenting Author:**Katharina Prummer, Technical University of Munich, TUM School of Social Sciences and Technology, Germany; **Co-Author:**Daniel Pittich, Technical University of Munich, Germany

Knowledge transfer from educational programs to the workplace is crucial for individuals seeking to enhance their skills and knowledge and for companies seeking to improve their performance. However, previous research has shown that knowledge transfer does not always occur, and various factors can hinder or promote it. Therefore, understanding the factors influencing successful knowledge transfer is essential for research and practice. This study investigates how students' ability, motivation, and environmental influences in an international Master's program for vocational education and training professionals affect their learning transfer to the workplace. The study will utilize a modified version of the Learning Transfer System Inventory (LTSI) to measure and compare the effects of ability, motivation, and environment on learning transfer. Data collection is ongoing, and results will be presented and discussed in the roundtable. The results will strengthen research from an international perspective. Overall, the study's findings will enhance the effectiveness of professional education programs and improve workplace performance.

Leadership for educational professionals in developing collaborations with partners

Keywords: Leadership Development, Leadership Styles, Organisational Learning, Workplace Learning

Presenting Author:Peter Bos, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Kazimir Helfenrath, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Marielle Stevens, Fontys University of Applied Sciences, Netherlands

While interorganizational collaboration is becoming increasingly important, creating effective interorganizational collaboration is extremely challenging for participating organizations. To gain insight in how to positively influence the development of interorganizational leadership, this exploratory research focused on the following questions: what are the perceived determinants that collaborating actors support in getting a grip on and creating and developing leadership in

interorganizational collaboration? To improve our understanding of these determinants, we conducted an explorative literature study and semi-structured focus groups with educational professionals who were participating in developing collaboration with (non) profit partners. The explorative literature study resulted in a conceptual model that was tested during the focus groups by evaluating and analyzing the evolution of the collaboration with the (non) profit partners. The data-analysis was first conducted separately by the three researchers. These separate results were discussed until we reached consensus.

Session F 4

23 November 2023 13:10 - 14:40
Minor Hall
EAPRIL Cloud Spotlight Symposium
Higher education, Workplace learning

One and all? Collaborative learning in different social configurations

Keywords: 21st Century Learning, Collaborative Learning, Continuing Professional Development in Teachers, Distance Education, Innovations in Education, Professional Development, Professionalisation of Educators, Research-based Learning, School Development, Social Interaction

Interest group: CLOUD 02 - Educators' professional development

Chairperson: Rebecca Eliahoo, United Kingdom

Chairperson: Sirpa Laitinen-Väänänen, JAMK University of Applied Sciences, Finland

Organiser: Nanke Dokter, Fontys University of Applied Sciences, Netherlands

Discussant: Eila Burns, Finland

In today's complex world, educators need collaborative learning in different social settings in order to learn how to face complex challenges in education. Collaboration often takes place in social configurations connecting educators both within and in-between schools collaborating on a complex challenge or task (Vrieling et al. 2022). Collaboration in social configurations might lead to learning of the individual level and/or on the collective level. In this symposium three different social configurations are presented and discussed from a collaborative learning perspective. Main questions are: How can we facilitate learning within the social configuration? How can we support learning between these social configurations, whilst situated in or in-between schools, and the school level? The first contribution from Emmy Vrieling focusses on teacher learning groups as social configuration, next Anouke Bakx focusses on educational research labs as social configuration for collaborative learning and finally Anje Ros and Henderijn Heldens present innovation teams of teachers, educators and students as a social configuration. All social configurations aim for professional development and/or school improvement. After a short presentation, Eila Burns opens the discussion with a brief reflection on the contributions and some challenging questions for the audience.

Facilitating social learning in teacher learning groups

Presenting Author: Emmy Vrieling, Open University of the Netherlands, Netherlands

Overall, this presentation describes how teacher learning groups (TLGs) work from the perspective of key factors, research tools to optimize the network learning process, and ways to facilitate student welfare. Research findings consist of a review study and two motivation studies within four teacher training institutes in the Netherlands, one study in F2F TLGs and one study in blended TLGs because of the COVID-19 measures. Sharing experiences can help facilitators of networks along, and vice versa, experiences from the audience can be taken into account in our own TLGs. In this way, we learn from and with each other, thereby constituting our own (growing) EAPRIL network.

Educational research labs: bridges between science and educational practice

Presenting Author: Anouke Bakx, Fontys University/Radboud University, Netherlands

Teacher-research is an effective means for professional development of teachers. Such research is often short-term, anecdotal and more oriented to practice than to theory. On the other hand, scientific research often does not provide insights which are directly usable in educational practice. By connecting teachers, scientists and teacher educators, the different perspectives and habits can be brought together. This is done in our educational research labs. In these labs primary school teachers, scientists and teacher educators work together on research, aiming to improve education. In three year periods, two kinds of research cycles are conducted. A practice-based research cycle is conducted by teachers, supported by scientists, addressing context-specific research questions from one primary school. The second research cycle concerns scientific research, for which input for the research questions is collected in the participating schools. The scientific research cycle is conducted by scientists, and all 35 schools from the labs participate in this. The participating teachers, teacher educators and scientists cooperate intensively in all phases of both research cycles. Scientists and teachers cooperating closely on research in these labs, bridges the gap between theory and practice, leading towards evidence-informed improvement of education.

Educator professionalization in learning communities with students and teachers

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

Professional development of educators is not obvious. In our teacher education institute we started with high ambition pilots to combine professional development of educators with the development of student-teachers and educational professionals and with the design of innovative solutions for urgent issues in schools. For this purpose, we developed a method, called 'innovation team-method' based on design-thinking, scrum and networked learning elements, based on several design principles, derived from literature. This method supports co-creation between the participants and stimulates collective learning. Until now 12 pilot learning communities of 6-8 persons (teacher educators, student-teachers and teachers and/or school leaders) were carried out. These pilot learning communities were evaluated by a focus group interview during the last meeting. The central question of the evaluation was: To what extent are the goals (participants' professional development and innovative output achieved and which factors hinder or promote the results? Results show that the professional development goals were achieved, for educators, as well for students and teachers and school leaders. The method proved to play an important role in the analysis and in deepening the issue being worked on.

Session F 5

23 November 2023 13:10 - 14:40
Meeting Room 6
EAPRIL Cloud Spotlight Symposium
Higher education

ChatGPT: a monster or an angel?

Keywords: Artificial Intelligence, Competence-based Education, Higher Education, Internships, Knowledge Management for Teaching & Learning, Teacher Thinking, Technology Enhanced Learning, Web-Based Learning

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

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

Discussant: Petra van Heugten, Hanzehogeschool Groningen, University of Applied Science, Netherlands

ChatGPT has raised hot discussion among educational practitioners as a clarion call for the era with Artificial Intelligence in Education (AIED). In contrast to its enormous popularity with students, many crucial issues remain unexplored due to a paucity of both epistemic and empirical research. If we plan to integrate AI in our educational practices, some problems need to be rectified. In this spotlight symposium, researchers from AVANS (NL), HAN (NL) and Hanze (NL) university of applied sciences will discuss their research findings on the following topics:

1. 1. Critical users: Differing perspectives on ChatGPT of first-year and fourth-year students; 2. 2. Intellectual independence: Discussion on the advantages and

risks of ChatGPT in education. 3. 3. Ethical consideration: Presentation on the role of instructors in the AIED era; We will discuss whether ChatGPT is a monster or angel, and how to take the complete advantage of AIED as instructors. We intend to motivate more instructors and researchers to engage in in-depth investigation of the practice and impact of AIED.

Students' perception about ChatGPT in education

Presenting Author:Petra van Heugten, Hanzehogeschool Groningen, University of Applied Science, Netherlands; **Co-Author:**Ning Ding, Hanze University of Applied Sciences, Netherlands

ChatGPT is an Artificial Intelligence tool that has gained popularity among students due to its human-like conversation and realistic responses to a variety of questions. ChatGPT is being used by university students for diverse purposes, such as report writing, translation and information searching. We conducted a questionnaire among first and fourth year bachelor students to explore their acceptance of ChatGPT in education. It shows that senior students who are just back from their five-month internship tend to be more cautious about ChatGPT and they worry about the accuracy of answers delivered by ChatGPT. This indicates that students' working experience enables them to be critical user of ChatGPT.

Responsible application of ChatGPT in educational practice

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

AI in education in general, and ChatGPT in particular, promises to offer learning opportunities that are more flexible, engaging, personalized and inclusive. Large language models are capable of generating convincing texts, thus forcing educators to rethink their learning outcomes and assessments. In this contribution, we explore the envisioned benefits of AI services such as ChatGPT in education, such as personalisation, flexibility and increased autonomy. Thereafter, we list some of the ethical and educational risks involved with this type of technology, related to, a.o., privacy, algorithmic bias, the (un)reliability of AI, and confusing novices with experts. In education, we need to make substantiated choices in how to deal with the existence of AI systems, since the sector has a crucial role to play to mitigate the risks posed by AI such as ChatGPT on society. We posit that in education, we should strive for intellectual independence through, among other things, a reevaluation of human thinking and interaction.

What does AI in Education mean for and student competences?

Presenting Author:Pierre Gorissen, HAN University of Applied Sciences, Netherlands

The integration of Artificial Intelligence (AI) in education is transforming the way we teach and learn, and it has the potential to change the competences required of teachers and students in higher education. One prominent example is ChatGPT, a large language model that can generate human-like responses to text-based questions. As AI technologies continue to evolve and become more prevalent in education, the competences required of teachers and students will shift. Teachers will need to be able to effectively integrate AI into their teaching methods, understand the limitations and ethical considerations of using AI in education, and be able to adapt their teaching styles to the changing needs of students. Students, on the other hand, will need to develop critical thinking skills to evaluate the accuracy and reliability of AI-generated responses, as well as become proficient in using AI tools to enhance their learning experience. During this session we'll discuss the impact of AI on teaching and learning, the importance of ethical considerations, the need for upskilling and the role of teachers in preparing students for a future where AI is an integral part of their life, work and (life long) learning.

Session F 6

23 November 2023 13:10 - 14:40

Meeting Room 5

Workshop

Vocational education

Promising Entrance: Improving supervisors' guidance for a better school2work transition

Keywords: At-risk Students, Internships, Professional Development, Vocational Education

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

Internships are a standard part of many education programs. They are common not only in traditionally subject-oriented vocational training, but also in universities of applied and academic sciences. Internships give students the opportunity to orientate themselves on their profession, practice it, and form a picture of their future career. In this workshop, we would like participants to experience the outcomes of our co-creative research project in which we developed tools for a) appropriate guidance of students during internships and school2work transition and b) mutual desirable cooperation between educational and practice supervisors for a successful school2work transition. We explain and provide several tools and invite participants to apply them to their own teaching practice, using real or fictional experiences. The workshop is highly interactive, using techniques such as role-play, voting on statements, and simulations. The first aim of the workshop is to have participants reflect on their collaborative and mentoring competences in their role as supervisors by experiencing and reflecting on the tools we developed. The second aim is to discuss to what extent the tools contribute to supervisors' professionalization and what adjustments are needed for improvement. Join us and improve your collaborative and mentoring competences!

Promising Entrance: Improving supervisors' guidance for a better school2work transition

Presenting Author:Rineke Keijzer, Rotterdam University of Applied Science, Netherlands

Internships are a standard part of many education programs. They are common not only in traditionally subject-oriented vocational training, but also in universities of applied and academic sciences. Internships give students the opportunity to orientate themselves on their profession, practice it, and form a picture of their future career. In this workshop, we would like participants to experience the outcomes of our co-creative research project in which we developed tools for a) appropriate guidance of students during internships and school2work transition and b) mutual desirable cooperation between educational and practice supervisors for a successful school2work transition. We explain and provide several tools and invite participants to apply them to their own teaching practice, using real or fictional experiences. The workshop is highly interactive, using techniques such as role-play, voting on statements, and simulations. The first aim of the workshop is to have participants reflect on their collaborative and mentoring competences in their role as supervisors by experiencing and reflecting on the tools we developed. The second aim is to discuss to what extent the tools contribute to supervisors' professionalization and what adjustments are needed for improvement. Join us and improve your collaborative and mentoring competences!

Session F 7

23 November 2023 13:10 - 14:40

Meeting Room 7

Present & Discuss

Higher education, Lifelong learning, Primary education

At-Risk Students in Primary & High Education

Keywords: At-risk Students, Educational Effectiveness and Quality of Education, Higher Education, Inclusivity, Labour Market & Formal Learning, Mentoring, Primary School Education, Professional Development, Well-being & Engagement, Work Environments

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

Chairperson: Kati Mäkitalo, University of Oulu, Finland

Career agency: Frictions and paralyzing thoughts when career development of young adults stalls

Keywords: At-risk Students, Inclusivity, Labour Market & Formal Learning, Mentoring

Presenting Author:Marijn Neuman-Sjonger, Friesland College, Netherlands; **Co-Author:**Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands; **Co-Author:**Monique Volman, University of Amsterdam, Netherlands

Young adults who find themselves in vulnerable positions often experience difficulties taking control of their careers. They encounter problems in taking first steps, run into barriers in their private lives and at work, and often cannot change this themselves. The study presented here aims to understand both theoretically and empirically what young adults encounter, how they take control over their career development (i.e., career agency), and how mentors can strengthen this through interventions aimed at the young adults themselves and the contexts they (want to) participate in. Twenty young adults who find themselves in vulnerable positions, their mentors, and the relevant social (work) environments were closely analyzed to gain insight into the obstacles they encounter and which thoughts these obstacles evoke. The results show that several types of frictions (between and within contexts and the person), which lead to conflicting and paralyzing thoughts, might be the core problem for not being able to show career agency. These insights are helpful for mentors working in vocational education or in the municipality. In the presentation and discussion, the value and limitations of our conceptual framework, methodological framework, and guidance approach will be discussed.

The predictive power of first-year academic performance in higher education: faculty level approach

Keywords: At-risk Students, Educational Effectiveness and Quality of Education, Higher Education, Professional Development

Presenting Author:Adam Kocsis, University of Szeged, Doctoral School of Education, Hungary; **Co-Author:**Gyöngyvér Molnár, University of Szeged, MTA-SZTE Digital Learning Technologies Research Group, Hungary

Higher education institutions are facing rising dropout rates (OECD 2019). Our research aim was to 1) create predictive models on dropout based on cognitive skills affecting academic performance, 2) to identify how first year academic performance predicts academic success, particularly obtaining a degree. The sample consisted of 3248 first-year university participants from a large Hungarian university (mean: 19.72, SD: 1.81; 54,4% female). The assessment consisted of a mathematical reasoning (alfa: .93) and a reading comprehension (alfa: .82) test. We gained grade point average and ECT data from the board of education. We used the structural equation modeling (SEM) approach in our analysis.

According to the fit indices, no university-level model can be developed, because, there are differences between the faculties regarding study skills. We decided to carry out faculty level analysis. In the Faculty of Science and Informatics (N=982) admission points and math skills were decisive (RMSEA=.079; CFI=.981; TLI=.952; p

Nigerian Schools Preparedness and Response to Environmental Accidents and Emergencies

Keywords: At-risk Students, Primary School Education, Well-being & Engagement, Work Environments

Presenting Author:Olalekan Elijah OJEDOKUN, Obafemi Awolowo University Ile-ife Nigeria, Nigeria; **Co-Author:**Folasade Serifat AKINOLA, Emmanuel Alayande University of Education Oyo, Nigeria; **Co-Author:**Oluwatosin Idowu EBENEZER, Obafemi Awolowo University Ile-ife, Nigeria

Using the descriptive and correlational survey research designs, this study determined the extent to which environmental accidents and emergencies (EA&Es) (bites, cuts, stings, discovery of strange objects and reptiles, fire Outbreak, electric parks and flooding, among others) occur in/around primary schools in Osun State, Nigeria. Reports from 180 personnel from primary school settings, selected using the multi-stage sampling procedures indicated that their schools would require special interventions from relevant stakeholders in order to improve upon their school safety, not minding the low level of occurrence of EA&Es in/around the Schools (35.6%): given the low level of EA&Es preparedness(45.63%); low quality of responses (39.6%); lack of differences in the level of occurrence (using Kruska-Wallis H-test) ($P > 0.05$), level of preparedness ($P > 0.05$) and quality of response ($P > 0.05$) to EA&Es, premised on school types; lack of differences in the level of occurrence, ($P > 0.05$), level of preparedness ($P > 0.05$) and quality of response techniques ($P > 0.05$) premised on the academic qualifications of school proprietors; and lack of differences in the extent of occurrence of EA&Es ($P > 0.76$), level of preparedness ($P > 0.05$) and quality of response techniques of primary schools premised on the length of school existence ($P > 0.24$).

Session F 8

23 November 2023 13:10 - 14:40

Meeting Room 1

Workshop

Secondary education

Students4Change! How to give your students a Voice in designing lessons?

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Motivation, Teaching Approaches

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

Dutch secondary schools express a need for educational approaches able to address students' progressively declining motivation. Teachers work hard to motivate their students and are looking for ways to do so. Seldomly, are students given a voice in (re)designing education. In this workshop, Student Voice (SV) approaches will be discussed as a way to actively include students in education and to improve motivation to learn. Using a theoretical foundation, we will discuss how teachers can apply SV approaches and what effect that has on students' motivation to learn. Practical examples of teachers experimenting with Student Voice approaches within the Students4Change project will be shared. Participants will actively participate in a guided Learning Design Studio to discuss how they can apply SV approaches within their classroom.

This workshop offers inspiration, hands on tools, and design principles to include students in (re)designing education that participants of the workshop can use within their classrooms.

Students4Change! How to give your students a Voice in designing lessons?

Presenting Author:Emma Strating, Hogeschool Utrecht/ University of Applied Sciences, Netherlands; **Presenting Author:**Quinta Kools, Fontys Hogescholen, Netherlands; **Presenting Author:**Harry Rorije, Hogeschool Utrecht, Netherlands

Dutch secondary schools express a need for educational approaches able to address students' progressively declining motivation. Teachers work hard to motivate their students and are looking for ways to do so. Seldomly, are students given a voice in (re)designing education. In this workshop, Student Voice (SV) approaches will be discussed as a way to actively include students in education and to improve motivation to learn. Using a theoretical foundation, we will discuss how teachers can apply SV approaches and what effect that has on students' motivation to learn. Practical examples of teachers experimenting with Student Voice approaches within the Students4Change project will be shared. Participants will actively participate in a guided Learning Design Studio to discuss how they can apply SV approaches within their classroom.

This workshop offers inspiration, hands on tools, and design principles to include students in (re)designing education that participants of the workshop can use within their classrooms.

Session F 9

23 November 2023 13:10 - 14:40

Meeting Room 3

Workshop

Higher education

Practical guidelines for teachers on the use of formative quizzes in a blended learning environment

Keywords: Assessment and evaluation, Blended Learning, Higher Education, Teaching Approaches

Interest group: CLOUD 10 - Assessment & Evaluation

How do you keep track of your students' progress in a blended learning design? One way to do that is formative assessments or assessment for learning and track those assessments via a Learning Management System. This workshop specifically focusses on the use of quizzes as a formative tool in a blended learning design and how this can be used more effectively. Previous studies in higher education have shown that teachers often do not utilize quizzes to their full potential. In this interactive workshop, participants will review and discuss a case in small groups and will also review their own use of quizzes in their educational practice by using a research-informed self-assessment tool we developed. After a short review, participants will formulate possible improvements for their own practice and discuss them in small groups. The entire workshop will be very interactive and will also have some short quizzes. Afterwards, the participants will leave the session with hands-on insights on how to improve their use of quizzes in assessment for learning.

Practical guidelines for teachers on the use of formative quizzes in a blended learning environment

Presenting Author:Jurjen Ophuis, Avans Hogeschool / Avans University of Applied Sciences, Netherlands; **Presenting Author:**Suzan van Brussel, Avans University of Applied Sciences, Netherlands; **Co-Author:**Esther van der Stappen, Avans University of Applied Sciences, Netherlands; **Co-Author:**Hans van der Heijden, Avans University of applied science, Netherlands

How do you keep track of your students' progress in a blended learning design? One way to do that is formative assessments or assessment for learning and track those assessments via a Learning Management System. This workshop specifically focusses on the use of quizzes as a formative tool in a blended learning design and how this can be used more effectively. Previous studies in higher education have shown that teachers often do not utilize quizzes to their full potential. In this interactive workshop, participants will review and discuss a case in small groups and will also review their own use of quizzes in their educational practice by using a research-informed self-assessment tool we developed. After a short review, participants will formulate possible improvements for their own practice and discuss them in small groups. The entire workshop will be very interactive and will also have some short quizzes. Afterwards, the participants will leave the session with hands-on insights on how to improve their use of quizzes in assessment for learning.

Session F 10

23 November 2023 13:10 - 14:40

Meeting Room 4

Workshop

Vocational education

NERDVET. International collaboration to create a toolkit critical thinking and medialiteracy.

Keywords: 21st Century Learning, Organisation of Educational Research, Teaching Approaches, Vocational Education

Interest group:

Erasmus + KA3 NERDVET project : Think smart!

Enhancing critical thinking skills and Media literacy in VET. A collaboration among several European partners: University of Verona, American Farm School – Perrotis College Greece, ENAIP NET Italy, Centro SanViator Spain, Inovinter Portugal, and VONK Netherlands. These partners co-created an educational Toolkit for VET students.

We will use an interactive method to present the workshop.

The aims:

Share valuable insights about:

- The Educationat Toolkit (concrete examples and good practices)
- The results of the piloting the Toolkit- for students (qualitative and quantitative research output), different outcomes in different countries.
- Building Bridges: the process in the international collaboration of the developed Educational Toolkit. What were the success- and fails factors in the collaboration? What lessons are learned? Which recommendations can we give to make a European collaboration (more) effective and successful?
- What can be a follow-up?

We will co-present this workshop with colleagues from the University of Verona (Italy); Vonk (the Netherlands) and Inovinter (Portugal).Andrea Ceschi (IT), Susanne Libbenga (NL), Lara Meijer (NL), Paula Pedro (PT)

NERDVET. International collaboration to create a toolkit critical thinking and medialiteracy.

Presenting Author:Lara Meijer, Vonk Alkmaar, Netherlands; **Presenting Author:**Andrea Ceschi, University of Verona, Italy; **Co-Author:**Susanne Libbenga, Vonk, Netherlands

Erasmus + KA3 NERDVET project : Think smart!

Enhancing critical thinking skills and Media literacy in VET. A collaboration among several European partners: University of Verona, American Farm School – Perrotis College Greece, ENAIP NET Italy, Centro SanViator Spain, Inovinter Portugal, and VONK Netherlands. These partners co-created an educational Toolkit for VET students.

We will use an interactive method to present the workshop.

The aims:

Share valuable insights about:

- The Educationat Toolkit (concrete examples and good practices)
- The results of the piloting the Toolkit- for students (qualitative and quantitative research output), different outcomes in different countries.
- Building Bridges: the process in the international collaboration of the developed Educational Toolkit. What were the success- and fails factors in the collaboration? What lessons are learned? Which recommendations can we give to make a European collaboration (more) effective and successful?
- What can be a follow-up?

We will co-present this workshop with colleagues from the University of Verona (Italy); Vonk (the Netherlands) and Inovinter (Portugal).Andrea Ceschi (IT), Susanne Libbenga (NL), Lara Meijer (NL), Paula Pedro (PT)

Session G 1

23 November 2023 14:50 - 16:20

Concourse

Roundtable

Primary education, Secondary education

21st Century Learning in Primary & Secondary Education

Keywords: 21st Century Learning, Artificial Intelligence, Beliefs and Conceptions of Learning, Collaborative Learning, Innovations in Education, Primary School Education, Secondary School Education, STEM, Technology Enhanced Learning, Work Environments

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

Chairperson: Hermien Raedts, Belgium

The STEMOOV model as a practical tool to improve STEM education: a pilot study.

Keywords: 21st Century Learning, Collaborative Learning, Secondary School Education, STEM

Presenting Author:Merel Vaes, Hasselt University, Belgium

Science, Technology, Engineering and Mathematics (STEM) education occupies an important position in equipping students with 21st century skills, which are essential for dealing with the complexity of the rapid socio-cultural and economic evolutions. However, educational institutions are struggling with providing qualitative STEM education. Therefore, the STEMOOV model was developed: a practice-based tool providing guidance for teachers and students to increase the integration of scientific disciplines and to strengthen these 21st century skills. Even though the STEMOOV model is increasingly being deployed, the efficacy and the results of the use of the model have not been tested before. Consequently, the aim of this study is to investigate the first experiences of pre-service teachers who will develop an interdisciplinary STEM project, and students who will carry out this project, both by means of the STEMOOV model. Exploratory data will be obtained after the execution of the project through a closed ended questionnaire and will be clarified by focus group interviews with several groups of students and pre-service teachers. Data will be thematically analysed and a member check will be performed to increase the reliability. This pilot study will determine future research to improve the applicability of the STEMOOV model in the classroom.

Schools and companies networking together to support learning

Keywords: 21st Century Learning, Beliefs and Conceptions of Learning, Innovations in Education, Work Environments

Presenting Author:Tamme Spoelstra, Hogeschool Viaa, Netherlands; **Presenting Author:**Ingrid Paalman, viaa university of applied sciences, Netherlands;

Co-Author:Jan Jaap Zijlstra, university of applied sciences Viaa, Netherlands

In this research a learning network HUB is formed by companies and primary education. In a particular part of the Netherlands (Region Zwolle).

The aim of this research is to support the quality and professionalism of teacher education and to boundary cross the different fields for learning and through that encourage interprofessionalism. This research also wants to address the importance of working together for a sustainable society in which all take responsibility for the local community in which the principle is used that it literally takes a village to raise a child. The main aim of this research is to work together to be present in the lives of children and support them to grow and develop into wise, happy and responsible citizens. The local- government, - companies and -schools partake in this research. Philosophy behind this is the belief that education reaches further than the classroom or school. People within the neighbourhoods and village all have to teach and learn children in becoming a healthy grown-up.

The main research question is: How can primary schools within the region of

Zwolle enlarge the use of qualified personal by designing a methodology between education and local companies (co-

creation) to support lifeworthy learning? The methodology used is a design based approach. Within the different cities, primary schools and local companies, design a method to support the so called 'fifth school day' together. The design is tested within practice and researched upon by the university of applied sciences Viaa for its worth.

Generation AI: Teaching AI and data agency to novice learners

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

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

The Generation AI project funded by the Strategic Research Council (SRC) established within the Academy of Finland aims to facilitate children's resilience in the face of technological forces, foster cybersecurity mindsets and equip teachers with the necessary insights and pedagogies for curricular transformation. The project's goal is to provide a solid foundation for educating the "Generation AI" about the defining technology of their era and facilitate personal data strategies and self-protective behaviors to mitigate threats to security and trust related to AI. The project team members work in the context of pre-primary and school (K-9) education to support teaching AI and data agency of novice learners. The project is in its early stage and the first round with more than 20 pilot schools (K-9) in three cities is in-progress.

Session G 2

23 November 2023 14:50 - 16:20

Meeting Room 6

Roundtable

Lifelong learning, Workplace learning

Innovation In Education In Different Contexts

Keywords: Collaborative Learning, Innovations in Education, Knowledge Building and Development, Leadership Development, Practice-based Research (methodology), Professionalisation of Educators, School Development, Technology Enhanced Learning, Training and Development, Workplace Learning

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 10 - Education for Sustainability, CLOUD 12 - Leadership in Education

Chairperson: Katharina Prummer, Germany

Research-oriented regional innovation on learning for sustainability

Keywords: Innovations in Education, Practice-based Research (methodology), Professionalisation of Educators, School Development

Presenting Author:Pieter Seunke, Aeres University of Applied Sciences Wageningen, Netherlands; **Presenting Author:**Arjen Nawijn, Aeres University of Applied Sciences, Netherlands

In the Dutch region 'de Gelderse Vallei', a network of schools, Wageningen University & Research (WUR), Aeres University of Applied Sciences Wageningen (AUoAS) and other regional partners (companies, institutions, governments) are working together on 'learning for sustainability' (LfS). Through collaborative research and further development of the research related partnership in this project, the network tries to further substantiate and develop LfS. Four schools and AHW and WUR form an inquiry focused inner circle. Each school has its own 'lab', in which a master-trained teacher-researcher collaborates with colleagues and regional partners on concrete cases related to LfS. The lecturer-researchers are supervised by researchers from AHW and WUR. Additional intervention takes place in a cross-school inner circle and work is done on transcending answers to the research questions, for which the labs generate research data. In an outer circle are regional and national partners (schools and other partners), important as critical friends and for the wider dissemination of the findings in the region and beyond. With this round table we want to present and discuss the project. We particularly like to focus on our experiences and questions with regard to building and strengthening our collaborative research-oriented regional innovation network.

Professionalization for education leaders to effectively lead educational innovations with ICT

Keywords: Innovations in Education, Leadership Development, Technology Enhanced Learning, Training and Development

Presenting Author:Pieter van Rooij, HAN University of Applied Sciences, Netherlands; **Presenting Author:**Mariola Gremmen, HAN University of Applied Sciences, Netherlands; **Presenting Author:**Tanja van Grinsven, HAN University of Applied Sciences, Netherlands; **Co-Author:**Maria Henriette Kral, HAN University of Applied Sciences, Netherlands; **Co-Author:**Irma van der Neut, IVA Beleidsonderzoek en advies, Netherlands

Education leaders play a crucial role in stimulating complex innovational processes with ICT. However, they often do not know how to motivate team members, provide room for professional development and support their team in acquiring digital literacy skills. They need to learn new competences to stimulate innovative ways of teaching and learning with ICT. Professional trainings can support education leaders in their role. Therefore, we developed an evidence-based training. We combined our competence framework on leading educational innovations with ICT with a literature review, in order to determine important elements that should be part of professional training for education leaders. After validation sessions with experts and in educational practice, we developed, executed and evaluated a training. Overall, participants appreciated the learning network and reflection on their own work. However, a few questions remained as well, which we would like to discuss in this roundtable. The overarching questions are: (1) How can we make sure that education leaders actually translate insights from the

training to their own practice? (2) How can we investigate short- and long-term effects of these trainings? (2) How can we design the training courses in such a way that they match education leaders' different roles and needs?

Promoting educational innovation and social capital: Measuring the quality of collective action

Keywords: Collaborative Learning, Innovations in Education, Knowledge Building and Development, Workplace Learning

Presenting Author:Diana Baas, Hogeschool De Kempel, Netherlands; **Co-Author:**Loek Schoenmakers, Hogeschool De Kempel, Netherlands; **Co-Author:**Anne van Buul, Hogeschool De Kempel, Netherlands; **Co-Author:**Bouke van Laarhoven, Hogeschool De Kempel, Netherlands

Teachers are continuously challenged to innovate their practice. Research has provided insight into numerous factors that contribute to sustainable educational innovation. Evidence suggests that encouraging teachers to work collaboratively in learning communities in which they continuously reflect on their practice, examine their practice and act on the derived insights supports a climate of innovativeness in schools. Despite the attempts of creating school communities in which teachers learn collaboratively, all too often the development of knowledge and skills of individual teachers is emphasized as a result of a traditional view of teaching as an autonomous profession in which teachers are primarily responsible for their own classroom. Social capital theory provides a theoretical lens to study how teachers access and share one another's knowledge in collective action in order to achieve educational innovation. In this roundtable we wish to generate ideas on how information on the quality of collective action can be gathered during the collective action itself. And how relevant stakeholders can be empowered to collect and interpret information on the quality of collective action themselves and subsequently use this information to strengthen this quality.

Session G 3

23 November 2023 14:50 - 16:20

Minor Hall

Present & Discuss

Higher education

Strategies To Improve Teaching And Learning Environments

Keywords: Assessment and evaluation, Beliefs and Conceptions of Teaching, Collaborative Learning, Creativity, Culture and Education, Higher Education, Interaction and Discourse in Education, Lifelong Learning, Metacognition and Metacognitive Learning, Qualitative and Quantitative Approaches to Learning and Instruction, Self-regulation and Self-regulated Learning, Teaching Approaches, Writing

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

Chairperson: EDNA MILENA SARMIENTO MARQUEZ, Tallinn University, Estonia

Higher Education Teachers' conceptions on formative assessment and fostering self-regulated learning

Keywords: Assessment and evaluation, Higher Education, Metacognition and Metacognitive Learning, Self-regulation and Self-regulated Learning

Presenting Author:J.B. van der Linden, HAN University of Applied Sciences / Maastricht University, Netherlands; **Co-Author:**TAMARA van Schilt-Mol, Hogeschool van Arnhem en Nijmegen, Netherlands

The purpose of this study was to investigate the conceptions of assessment and the practices of teachers in fostering self-regulated learning in higher education. Sixteen teachers from six programmes at a large University of Applied Sciences in the Netherlands were interviewed using a semi-structured interview guideline. Qualitative data analysis was conducted using template analysis. The findings showed that all teachers acknowledged the importance of the formative purpose of assessment in providing feedback to steer the learning process. However, their classroom actions were mainly directed towards providing feedback on the cognitive level, with little or no attention paid to fostering self-regulated learning. Although teachers saw a role for themselves in fostering self-regulated learning, their current actions were not aimed at this level. The study concludes that a rich environment conducive for learning is present with all teachers, but feedback provision is not naturally aimed at the learning process and self-regulated learning. Therefore, it is important to invest in teachers' conceptions and task conceptions regarding developing SRL skills in conjunction with others, and by collaboration in education and educational research.

Co-creation in higher education: lessons learned from ten pilots

Keywords: Collaborative Learning, Creativity, Higher Education, Lifelong Learning

Presenting Author:Miranda de Hei, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Elke Muller, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Melissa van der Heijden, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Dulci Altorf, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Margriet Lerink, The Hague University of Applied Sciences, Netherlands; **Co-Author:**Daphne Kuijlenburg, The Hague University of Applied Sciences, Netherlands

In this study we explore the added value of co-creation as innovative educational method for stakeholders within and outside of HE institutes. Co-creation is a collaborative process where students, teachers and other stakeholders, such as working field professionals and civilians, collaboratively work and equally contribute to generate innovative solutions for complex questions or problems. First we performed a literature study. Thereafter, ten pilot co-creation pilot projects within five faculties of a university of applied sciences are being researched using a mixed method research design. We use semi-structured observations of the meetings, a validated questionnaire, interviews and participants complete a value creation form. The literature study resulted in 'co-creation'-rules that are kept in each session to support good co-creation processes. The pitfalls of co-creation we found: teachers find it difficult to adapt a learning and collaborative attitude, working field professionals' full schedules leave little room for co-creation meetings, and students find it difficult to get used to teachers as equal participants in co-creation collaboration.

Connecting Theory and Practice in an Undergraduate Community-Engagement Course

Keywords: Culture and Education, Interaction and Discourse in Education, Qualitative and Quantitative Approaches to Learning and Instruction, Writing

Presenting Author:Katharina M. Bach, Ludwig-Maximilians-Universität (LMU), Germany; **Co-Author:**Sophia L. Ángeles, Penn State University, United States; **Co-Author:**Marjorie Elaine Faulstich Orellana, University of California Los Angeles, United States

This research examines an educational project designed to closely link educational theory and practice in a community-engagement course. Students attended university seminars on sociocultural learning theory and ethnographic research. Then they worked with youth in an after-school program at an urban elementary school, writing field notes about their experiences. Field notes from 51 students, written across three quarters of instruction, were coded and analyzed qualitatively to investigate how these functioned as mediational devices to connect theory and practice and deepen students' reflective stances. Results showed that students connected theory and practice in patterned ways, including starting with theory and connecting it to practice, using practice to deepen their understanding of theory, using theory to guide practice, and relating theory to life. The results highlight the importance of students' animated, relational engagement with children at the after-school program and with each other for their willingness to engage with theory and their ways of understanding it. We draw implications for undergraduate education that seeks to bridge the theory-practice divide and to integrate better mind, heart, culture, and activity for transformative educational practice. Overall, the research contributes to debates about the role of theory in transformative action in the world.

Innovating Educational Sciences Teaching via Challenge-Based Learning

Keywords: Beliefs and Conceptions of Teaching, Higher Education, Qualitative and Quantitative Approaches to Learning and Instruction, Teaching Approaches

Presenting Author:Despoina Georgiou, Utrecht University, Netherlands; **Co-Author:**Silvia Gallagher, Trinity College, The University of Dublin, Ireland

Challenge-based learning (CBL) is an increasingly popular pedagogy in higher education that aims to enhance students' transferable competencies and skills by engaging them in authentic and socially relevant problems. While primarily adopted in engineering education, CBL's interdisciplinary nature and potential benefits for students in all disciplines make it a promising, but underused, pedagogy in other disciplines. However, research on student, teaching staff, and stakeholder perceptions of CBL is lacking in non-traditional CBL disciplines, such as educational sciences. This is the first study to explore perceptions of CBL pedagogy in educational sciences by redeveloping a course with key elements of CBL beyond the traditional classroom setting. A mixed-methods design was

employed, and data were collected from $N = 70$ bachelor students, $N = 8$ external stakeholders, and $N = 6$ lecturers. Results suggest that most educational science students showed positive experiences with the CBL course, reported their professional and academic skills development, and made better connections between theory and practice. The study highlights the importance of providing CBL-specific professional development courses for lecturers to better support students' learning and the need for closer collaboration between lecturers and external stakeholders to provide a more holistic learning experience for students.

Session G 4

23 November 2023 14:50 - 16:20

Meeting Room 3

Workshop

Vocational education

"Unleash their Inner Sherlock: Empowering Students with a Inquisitive Attitude

Keywords: Problem-based Learning, Social Interaction, Training and Development, Vocational Education

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

This workshop aims to foster an inquisitive attitude among students. Participants will learn about the key components of this attitude and how they can apply it in real-world scenarios. The session will also discuss the practical research conducted in this area, including the results and implications. In addition, the workshop will feature a series of interactive challenges designed to test and develop the participants' inquisitive skills. One of the activities involves a game that encourages the attendees to practice using an investigative mindset by analyzing practical case studies that require an inquisitive approach. By the end of the workshop, participants will have a better understanding of what it takes to cultivate an inquisitive attitude, as well as the practical skills to apply it in the classroom.

"Unleash their Inner Sherlock: Empowering Students with a Inquisitive Attitude

Presenting Author: Ferdinand Brand, mboRijnland, Netherlands; **Co-Author:** Cok Neven, mboRijnland, Netherlands

This workshop aims to foster an inquisitive attitude among students. Participants will learn about the key components of this attitude and how they can apply it in real-world scenarios. The session will also discuss the practical research conducted in this area, including the results and implications. In addition, the workshop will feature a series of interactive challenges designed to test and develop the participants' inquisitive skills. One of the activities involves a game that encourages the attendees to practice using an investigative mindset by analyzing practical case studies that require an inquisitive approach. By the end of the workshop, participants will have a better understanding of what it takes to cultivate an inquisitive attitude, as well as the practical skills to apply it in the classroom.

Session G 5

23 November 2023 14:50 - 16:20

Meeting Room 7

Case study

Higher education, Lifelong learning, Workplace learning

Professional Development & Training in Education

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Higher Education, In-service Teacher Training, Mathematics Education, Professional Development, Professional identity, Training and Development

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

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

Working all together: dialogic teaching TDP in Chilean school communities

Keywords: Continuing Professional Development in Teachers, Professional Development, Professional identity, Training and Development

Presenting Author: MARIBEL CALDERON, Universidad Católica Silva Henríquez, Chile

Teacher professional development is an ongoing challenge. The design and evaluation of a teacher training program for the promotion of situated and transdisciplinary dialogic teaching developed in two school communities in Chile is presented. Twenty teachers from different disciplines participated in a workshop of five group sessions and one individual session. Class registration was included. Individual interviews were conducted at the end of the process under a qualitative approach. The evaluation of the formative experience stands out insofar as the activities designed for the formative process are coherent with the proposal, allowing the experience of the principles of dialogic teaching, the protected reflection of one's own practice, the value of colleagues in the process of rethinking one's work and the value of dialogue in a complex educational reality. The main conclusion is that the format of continuous professional development for teachers should be flexible enough to consider the characteristics of the communities as an input for the involvement of their teachers.

Bringing Theory into Communities of Practice: Focus on University Teaching

Keywords: Collaborative Learning, Higher Education, Professional Development, Training and Development

Presenting Author: Birgit Hawelka, University of Regensburg, Germany; **Presenting Author:** Regine Bachmaier, University of Regensburg, Germany

For faculty, communities of practice play a crucial role for acquiring teaching competence. However, lecturers run the risk of passing on outdated information about teaching and learning when sharing knowledge within these communities. To address this issue, we introduced a nonformal faculty development program titled "Focus on University Teaching". The program consists of three components: (1) A weblog that reviews and discusses the state of research on teaching and learning in higher education. (2) A supplementary Moodle course provides lecturers with discussion questions for the blog posts. (3) Moreover, lecturers are encouraged to incorporate the ideas they gained from the discussion into their courses and to describe their practical experience in a case study. The blog then publishes selected case studies as examples of good practices. In this presentation, we discuss the experience of implementing the new format and explore its benefits for communities of practice in higher education.

A Teacher's Perspectives of Effective Design Features of Professional Development

Keywords: In-service Teacher Training, Mathematics Education, Professional Development, Training and Development

Presenting Author: Marina Basu, Arizona State University, United States; **Co-Author:** Karen Koellner, Arizona State University, United States; **Co-Author:** Nanette Seago, WestEd, United States; **Co-Author:** Nicora Placa, Hunter College, City University of New York, United States

This study examined one teacher's perspectives of effective professional development (PD) four years after attending PD workshops to better understand her uptake and what content, instructional practices, and resources she continues to use, why and how she interprets and implements these practices in her classroom today. We also examined her perspective on the design features of PD that she attributes to her learning. We used a survey and collected video data from the teacher's classroom, and we also conducted think aloud interviews to better understand her teaching and learning overtime and her perception of her own learning and how it is currently evidenced in her classroom today. Through triangulation of data and analyses, we identified six assertions that capture her perspectives on effective features of PD design as well as providing evidence of her sustained learning four years post PD.

Session G 6

23 November 2023 14:50 - 16:20

Meeting Room 5

Workshop

Higher education

Co-creation as a means to enhance learning for sustainable development

Keywords: Cooperative Learning, Higher Education, Instructional Design and Instructional Strategies, Knowledge Building and Development

Interest group: CLOUD 10 - Education for Sustainability

This workshop aims to co-create design principles for didactic methods for learning processes supporting sustainable development goals. Inspiration comes from a recent case study, the Malta Project. This collaborative project was started in 2023 in a learning community of PE and HE institutes in Malta and The Netherlands. Participant teachers co-created designs for curriculum- and lesson materials in which they integrated sustainable development goals. First insights from the analysis of data in this case study are presented. These insights relate to the key activities that may be effective in co-creation for sustainable learning outcomes. Participants are then invited to apply these key activities into their own designs for learning. Resulting design ideas are reflected on, to create further understanding of ways in which teachers can apply co-creation design methods to facilitate learning outcomes consistent with goals for sustainable development.

Co-creation as a means to enhance learning for sustainable development

Presenting Author: Marije Bent, Aeres University of Applied Sciences Wageningen, Netherlands; **Co-Author:** Frank De Jong, Aeres University of Applied Sciences & Open University Heerlen, Netherlands; **Co-Author:** Bastienne Bernasco, Saxion, Netherlands

This workshop aims to co-create design principles for didactic methods for learning processes supporting sustainable development goals. Inspiration comes from a recent case study, the Malta Project. This collaborative project was started in 2023 in a learning community of PE and HE institutes in Malta and The Netherlands. Participant teachers co-created designs for curriculum- and lesson materials in which they integrated sustainable development goals. First insights from the analysis of data in this case study are presented. These insights relate to the key activities that may be effective in co-creation for sustainable learning outcomes. Participants are then invited to apply these key activities into their own designs for learning. Resulting design ideas are reflected on, to create further understanding of ways in which teachers can apply co-creation design methods to facilitate learning outcomes consistent with goals for sustainable development.

Session G 7

23 November 2023 14:50 - 16:20

Meeting Room 4

Present & Discuss

Higher education

Social Interaction in Primary & Higher Education

Keywords: Educational Policy, Emotions and Emotional Development, Equality / Education for All, Higher Education, Inclusivity, Professional identity, Social Interaction, Teacher Thinking, Team Learning

Interest group: CLOUD 03 - Strategies to improve teaching and learning environments, CLOUD 04 - Improving learning and well-being, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Andrea Prince van Leeuwen, Inholland University of Applied Sciences, Netherlands

Comparing emotional labour in teamwork in engineering and hospitality students

Keywords: Emotions and Emotional Development, Higher Education, Social Interaction, Team Learning

Presenting Author: Rachel Germanier, Les Roches, Switzerland; **Co-Author:** Annick Darioly Carroz, Les Roches, Switzerland; **Co-Author:** Nihat Kotluk, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland; **Co-Author:** Roland Tormey, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Being able to work effectively in a team is a vital professional skill. But there are differences in the emotion display rules which are socially deemed appropriate for different social groups – including different professions. While engineering has traditionally been understood as rational and unemotional profession, emotion in interaction is perhaps more central to the work of hospitality professionals. Will their emotions be regulated in the same way while working in teams? And at what cost to the student who is regulating their emotion? A mixed-method approach was adopted to attempt to answer this question. Quantitative survey data were gathered firstly from the two distinct populations of students to determine where there might be differences in intragroup emotion management and then a second, qualitative, stage will be undertaken to determine, through interviews with a smaller sample, potential reasons for their intrateam behaviour. Data collection is currently in progress. The results will provide valuable insight into emotional management and potentially identity construction and its relevance in discipline specific intrateam interaction in under- and post-graduate engineers and hospitality students.

(First-gen) students thrive with social connections: positive outcomes from building networks.

Keywords: Equality / Education for All, Higher Education, Inclusivity, Social Interaction

Presenting Author: Katrien Hermans, University of Hasselt, Belgium; **Co-Author:** Reinhilde Pulinx, University College Leuven -Limburg, Belgium; **Co-Author:** martijn willems, Windesheim University of applied sciences, Netherlands; **Co-Author:** Tisja Korthals Altes, Windesheim University, Netherlands; **Co-Author:** Elke Emmers, Universiteit Hasselt, Belgium

The social capital theory argues that students benefit from building social networks, such as obtaining institutional resources, information, and support to achieve success in higher education (Goddard, 2003). This study seeks to gain insight into the social capital, among other things, that students build during their studies, specifically for first-gen students. In doing so, we try to gain a better understanding of what social networks they automatically build, the barriers they face (in the personal, relational, academic, and learning environments), and in what ways they can best be supported in this. An exploratory, mixed-methods study was conducted, combining an online survey and focus groups of students from three higher education institutions in Belgium and the Netherlands. The results were consistent with the social capital theory, in which greater social capital was related to more positive outcomes (such as study success, reduced stress, and a higher sense of belonging). The results also revealed that first-gen students generally had less social capital, experienced less support, and perceived their studies as more stressful compared with other students. The findings suggest that active efforts relating to both social and academic integration that enable students to create a social network during their studies are necessary.

Norwegian teachers and a safe psychosocial environment: accountability, responsibility, and identity

Keywords: Educational Policy, Professional identity, Social Interaction, Teacher Thinking

Presenting Author: Annette-Pascale Denfeld, University of Agder, Norway; **Co-Author:** Esther Canrinus, University of Agder, Norway; **Co-Author:** Inger Marie Dalehefte, University of Agder, Norway

This study investigates factors that affect teachers' perception of and approach to initiating proceedings according to the Norwegian "anti-bullying" law, chapter 9 A. A quantitative survey ($n=149$) studies which factors influence perceived difficulty and likelihood of initiating cases that challenge teachers' personal accountability or perceived responsibility to act. Preliminary results of regression analyses suggest that perceived difficulty is the main predictor of likelihood of initiating cases. Likelihood is further predicted by how strong teachers perceived the law's positive effect on students' environment, how well teachers know its' content, and teachers' self-efficacy in the classroom. Perceived difficulty is affected by clarity of routines and responsibilities, perceived positive effect of 9A, and job satisfaction. These results indicate that to ensure students' right to a safe environment, administrators should focus on securing clear routines, highlighting the benefits of 9 A proceedings for students, and enhancing teachers' knowledge of the law. At the same time, teachers' job satisfaction and self-efficacy are domains of teacher identity that need to be considered and attended to.

Session G 8

23 November 2023 14:50 - 16:20

Meeting Room 1

Roundtable

Higher education

Curricula In Higher Education

Keywords: Beliefs and Conceptions of Learning, Collaborative Learning, Continuing Professional Development in Teachers, Curricula, Higher Education, Initial Teacher Education (Pre-service), Innovations in Education, Professional Development, Teaching Approaches, Workplace Learning

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

Chairperson: Marco Mazereeuw, Netherlands

How pre-service teachers bridge the gap between theory and practice

Keywords: Beliefs and Conceptions of Learning, Curricula, Initial Teacher Education (Pre-service), Workplace Learning

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

A challenge for school-university partnerships in teacher education is to connect the learning contexts of the institute and practice for integrating theory and practice. Guidelines for how to link these contexts can be found in literature, but little knowledge is available on how students perceive they bridge this theory-practice gap. In this roundtable session preliminary results of a pilot year of a longitudinal research project will be shared. First year students were interviewed at the end of both semesters of a newly implemented curriculum aiming to connect the learning at the institute and in practice (school). Ways that students perceive they bridge those learning contexts as well as helping and/or hindering factors will be presented to start a dialogue focusing on implications for teacher education.

Unpacking the Silence: Co-Creating Inclusive Higher Education Curricula

Keywords: Curricula, Higher Education, Professional Development, Teaching Approaches

Presenting Author: YUXIN LIU, University College London, IOE, United Kingdom

This project is aiming to explore how to co-create the Chinese (or even Asian) student-inclusive curriculum and further improve Chinese students' experience in our programme. Based on two rounds of 60-80 minute focus group interviews that conducted in the March 2023, this project roughly found the primary reasons for Chinese students' silence were not rooted in the stereotype that Chinese students are not talkative. Instead, it was discovered that the issue stemmed from the curriculum design and teaching methods of the program. The present study contends that a reevaluation of the silence exhibited by Chinese students is warranted. As Ha and Li (2014) underscore, silence is not simply a matter of exercising one's right; rather, it serves to reinforce the notion that this stereotype is rooted in a Western gaze imbued with a certain hegemony that fails to regard silence as a form of engagement. This need arises not only from the neoliberal view that Chinese students are a continuous source of income for UK institutions (Su & Harrison, 2016), but also from the essential requirement to ensure and improve the quality of higher education.

Supporting design teams with collaborative curriculum design towards more responsive curricula.

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

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

Vocational education in the Netherlands has a history of interorganizational collaborations, ranging from alignment between educational and professional practices to integrative learning environments in which students, educational professionals and industry representatives collaboratively work towards solutions for authentic issues. To achieve the potential of such learning environments in terms of responsiveness (the ability to respond to changing needs of students, labor market and wider society) educational professionals are challenged to not only collaborate with stakeholders in the enactment of curricula, but also in the design thereof: through collaborative curriculum design in multi-actor design teams. Collaborative curriculum design is complex. Previous work reveals that design teams require a mix of human, material and structural supports in the areas of collaboration, curriculum and design (Custers et al., 2023). In this roundtable, we aim to present questions concerning a follow-up design study, intended to help institutes build the necessary supportive environment for design teams and to provide further scientific knowledge about the research question: what are the manifestations of such supports? This study is part of an educational design research PhD project which involves iterative processes of analysis, design and evaluation to generate both theoretical understanding and a workable intervention (McKenney & Reeves, 2019).

Session G 9

23 November 2023 14:50 - 16:20

Board Room

Present & Discuss

Higher education, Lifelong learning, Secondary education

Blended Learning in Diverse Environments

Keywords: Blended Learning, Curricula, Distance Education, Higher Education, Innovations in Education, Learning Analytics, Lifelong Learning, Professional Development, Self-regulation and Self-regulated Learning, Technology Enhanced Learning, Vocational Education

Interest group: 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: Barbara Roosken, Fontys University of Applied Sciences, Netherlands

Are you up for DigiTech? Using clustering to identify profiles within the organisation of DigEd

Keywords: Blended Learning, Innovations in Education, Professional Development, Technology Enhanced Learning

Presenting Author: Adriaan Vervoort, UHasselt, Belgium; **Co-Author:** Lisa Koutsoviti Koumeri, Hasselt University, Belgium; **Co-Author:** Nuria Gonzalez Castellano, Hasselt University, Spain; **Co-Author:** Katrien Struyven, Hasselt University / Vrije Universiteit Brussel, Belgium

Integration of digital technology in education is influenced by many factors related to either the context in which technology is adopted, or the attitudes of those adopting it. While many studies have explored the influence of either contextual factors or attitudes on the implementation of digital technology for the teaching-learning process, the relationship between both seems to be underexposed in research. In this study, data collected using an adapted version of the SELFIE was used to cluster teachers' responses (n = 269) and identify different profiles. Hierarchical clustering was applied using Ward's clustering criterion and the Generalised Distance Measure. The results show three meaningful clusters: 1. a high context and high attitudes resulting in high use of digital technology; 2. a low context and high attitudes resulting in high use of digital technology; and 3. a low context and low attitudes resulting in low use of digital technology. Cluster 2 shows that positive attitudes towards digital technology usage mitigate a limiting context, thus emphasising the importance of attitudes when implementing digital technology in education.

Flexibility needs of professional master students in the Netherlands

Keywords: Blended Learning, Curricula, Higher Education, Lifelong Learning

Presenting Author: Tjark Huizinga, Saxion University of Applied Sciences, Netherlands; **Co-Author:** Chantal Velthuis, Saxion University of Applied Sciences, Netherlands; **Co-Author:** Marjon Baas, Saxion University of Applied Sciences, Netherlands; **Co-Author:** Ellen De Bruyne, AP University of Applied Sciences and

Arts Antwerp, Belgium

In recent years, students increasingly expressed a need for more flexible education and curricula that better align with their individual needs (e.g., Bolhuis et al., 2019). Most studies, however, report on flexible education for bachelor degrees and pay less attention to master degrees. Our study aims to gain a better understanding of how to realize flexibility in master degrees. To achieve this, we surveyed master students (n=112) from six professional master's degree programs from three schools within one institute. We used the FlexistAP-questionnaire (De Bruyne & van den Broeck, 2020) which was administered at the start of the 2022-2023 academic year. Additionally, focus group sessions were conducted with students for each cohort for all involved programs based on emerging themes from the questionnaire. The results indicate that master students want to organize their own educational program; they want to choose modules in line with their learning needs and work on their own learning objectives within those modules. In addition, students prefer to have the freedom to decide how they attain their learning goals and seek appropriate guidance while learning. Finally, in terms of scheduling, master students also prefer to take and complete classes in their own pace and moment.

Self-directed learning and work experience of non-traditional students in a blended learning course

Keywords: Blended Learning, Lifelong Learning, Self-regulation and Self-regulated Learning, Vocational Education

Presenting Author:Maxi Eileen Brausch-Böger, Technical University of Munich, Germany

The study accompanied non-traditional students during their first semester in a new master's program designed in a blended learning format. Following a mixed-methods approach, the relationship between self-directed learning and work experience is investigated, as a lack of self-learning competence (SLC) can lead to difficulties and overload in blended learning courses. Looking at the individual elements of SLC, e.g., methodological competence, effects can be demonstrated through work experience. Based on this, we examine how students' work experience and their SLC are related to each other. The quantitative survey was conducted at the beginning and end of the first semester. In addition, three interviews were run with five students during the semester. A significant negative relationship was found between methodological competence and work experience, job tenure, and organization tenure. Results also show a significant change in students' emotional competence. The interviews confirm changes in the learning process as well as vertical and horizontal transfers of learning, which, however, depend on the individual company and professional field. Work experience can help in mastering a blended learning course when there is an overlap in methods or content. However, re-entry into studies is especially difficult for students with a lot of work experience.

Hybrid learning during Covid-19

Keywords: Blended Learning, Distance Education, Innovations in Education, Learning Analytics

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

General school closures, as a containment measure during the Covid-19-pandemic, have been the subject of many studies. For students who had to be quarantined later in the pandemic, hybrid learning was set up to avoid them missing too much class time. However, few is known about the characteristics of the hybrid teaching-learning settings during the quarantine periods. Furthermore, students' perspectives on their learning in quarantine have hardly been investigated. The purpose of this study is to find out how students worked during hybrid distance learning and which aspects were perceived as particularly challenging or useful. Based on a student questionnaire, the study follows a mixed methods approach. Open-ended questions were coded and matched with data from closed-ended questions. Analysis revealed that the students mainly lacked social contacts with their friends and the direct support of a teacher during this time. On the other hand, the benefits of being at home and being able to work more autonomously were considered useful. Based on these findings, which will be extended to cover different experiences within student subgroups, the presentation will discuss how these or similar situations can be better managed in educational practice.

Session H 1

23 November 2023 16:30 - 18:00

Conference Room

Present & Discuss

Higher education, Vocational education

Health Education

Keywords: Collaborative Learning, Curricula, Educational Policy, Higher Education, Internships, Lifelong Learning, Medical & Health Education, Teaching Approaches, Vocational Education, Well-being & Engagement, Workplace Learning

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

Chairperson: Merih Welay, University of Szeged, Hungary

The value created in a nursing home learning community collaboration: An opportunity for all?

Keywords: Collaborative Learning, Higher Education, Lifelong Learning, Workplace Learning

Presenting Author:Wendy Heemskerck, Haga Teaching Hospital / LUMC - Health campus, Netherlands; **Co-Author:**Annette van der Linden, University of Applied Sciences Leiden, Netherlands; **Co-Author:**Jet Bussemaker, LUMC / Leiden University, Netherlands; **Co-Author:**Christian Wallner, University of Applied Sciences Leiden, Netherlands

Background: Nurses have to collaborate with other professionals to address increasing complex care for elderly. To promote professional partnerships in nursing home care, learning communities are suggested. However, studies on the value of learning in nursing homes are scarce. Research question: What value of learning is enabled by the community involvement of health care professionals, educators and nursing students? Method: Using a case study, a nursing home learning community was studied between 2019 and 2021. Data were collected through self-reports, observations and stories (interviews, diaries) and analyzed using a template analysis. Results: The analysis revealed 9 transcending themes, 6 associated with preexisting value-creation cycles (expected, immediate, potential, applied, realized and transformative value) and 3 other relevant themes: contextual, factors and value-creation initiators. Meaningful moments described by members were mainly related to immediate value but through the various data collected other values also emerged. Conclusions: A nursing home learning community comprised of diverse professionals in partnership with nursing students created value for different members in a various and dynamic way and may offer opportunities for others. Implications: One implication for practice and research regarding the membership of residents in a learning community will be explored and discussed with the attendees.

Networks around internships in healthcare

Keywords: Educational Policy, Internships, Medical & Health Education, Vocational Education

Presenting Author:Beitske van der Mark, Hanze University of Applied Sciences, Groningen, Netherlands

One of the key ways to tackle staff shortages is education, which requires collaboration between organisations. As internships are crucial in vocational training, educational and internship institutes need to agree on the terms of internships. The aim of this study is to answer the research question: What are successful ways of arranging networks to create internships in the healthcare sector? Initial conditions, governance and reciprocal behaviour are key factors in the various stages of collaboration and are likely to leave their mark on the outcome. A comparison of networks in four regions in the Netherlands provides insight into how such networks are organised. We conducted structured interviews with key figures and analysed documents and open-source data. We conclude that regions differ in how they organise healthcare internships; some are very network-oriented, others to a lesser degree. Although all regions manage to arrange one internship per student, network-oriented regions seem to create better matches.

A curricular framework for person-centred healthcare education: why, what and how?

Keywords: Curricula, Medical & Health Education, Teaching Approaches, Well-being & Engagement

Presenting Author:Famke van Lieshout, Fontys University of Applied Science, Netherlands; **Co-Author:**Neal Cook, University of Ulster, United Kingdom

Person-centred practice could be seen as vital for futureproof healthcare, requiring constant wakefulness when forming healthcare relationships and environments. Education has a fundamental role to play in instilling and espousing the core values underpinning person-centred practice. The developmental journey of future person-centred healthcare practitioners could be enhanced when they experience person-centredness in both a 'giver' (carer) and 'receiver' (student) role. The Person-centredness in Healthcare Curricula Project was a partnership of six European universities, funded by the European Erasmus+ Programme. Since November 2019, the project team has co-created an adaptable, flexible, and theoretically-grounded Person-centred Curricular Framework with stakeholders. By doing so, the framework has relevance for a wide range of disciplines. A whole-systems approach adapted from organisational science was used: the McKinsey 7s Methodology. The framework can work synergistically with existing curricular processes in pursuit of developing future person-centred healthcare practitioners and healthful cultures. As well as presenting statements describing the 7 components of the 7S Model, we will define and describe outcomes and thematic actions that support its realisation in educational practice. Supported by an international community of practice, the framework will continue to grow. Its impact on person-centred cultures and student development will be explored through further evaluation.

Nurturing shared understanding: "learning networks" in Dutch healthcare internship programs

Keywords: Collaborative Learning, Internships, Vocational Education, Workplace Learning

Presenting Author:Thomas Teekens, Rijksuniversiteit Groningen / ICS, Netherlands; **Co-Author:**Francesca Giardini, Rijksuniversiteit Groningen / ICS, Netherlands; **Co-Author:**Rafael Wittek, Rijksuniversiteit Groningen / ICS, Netherlands

A key objective of internships in vocational education programs is to nurture shared understanding among collaborators in the workplace. Through hands-on collaboration in professional contexts, students are expected to learn about the roles, functions, and practices of professionals in both their own, and other, disciplines. This study assesses under what conditions shared understanding appears in students' collaborative relations in "learning networks"—a particular type of internship programs in health care designed to increase students' interprofessional skills. Empirically, our study mapped student collaboration in five separate learning networks (n=188) in the Dutch healthcare sector. Using social network analysis methodology, analysis of student's collaborations in one type of learning network indicate task interdependence and cooperation frequency significantly predict shared understanding in both intra- and interdisciplinary collaborations of healthcare interns. The remaining four networks have a more intricate network structure, necessitating a MR-QAP procedure to analyze the data. Results of those analyses will be presented at the conference.

Session H 2

23 November 2023 16:30 - 18:00

Meeting Room 6

Symposium

Higher education

Building bridges between online and face-to-face in higher education: the ideal blend.

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

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

Chairperson: Nynke Bos, Inholland University of Applied Sciences, Netherlands

Organiser: Hanneke Theelen, Zuyd University of Applied Sciences, Netherlands

Organiser: Marcel Van der Klink, Zuyd, University of Applied Sciences, Netherlands

Organiser: Claudio Vanhees, Belgium

Discussant: Nynke Bos, Inholland University of Applied Sciences, Netherlands

In recent years, online and blended design of higher education has become increasingly important. The use of technology enhances the accessibility of education, as students can study more flexibly in their own space and time. Designing effective online and blended education, however, is challenging and requires good collaboration among teachers, between teachers and students, and among students. Moreover, little is known about didactic and pedagogic design principles to support teachers. This symposium compiles three contributions focused on designing online and blended education. Submission 1 presents a systematic review (2010-2021) on the didactic and pedagogical design of e-learning in higher education. Submission 2 present a study focusing on the benefits of online education experienced by students and teachers during the pandemic and worth incorporating into their curricula in the post-COVID-19 era, examined using group concept mapping. Submission 3 reports on a rapid evidence assessment of systematic reviews and meta-analyses (2011-2021) investigating (a) the effect of different blended formats on students' learning and psychosocial outcomes, and (b) the didactic design principles that effective blended formats adhere to. The chair will ensure interactivity during the symposium through a live Q&A, and three challenging statements for the audience and presenters to engage in discussion.

The didactic and pedagogical design of e-learning in higher education

Presenting Author:Hanneke Theelen, Zuyd University of Applied Sciences, Netherlands; **Co-Author:**Dave Van Breukelen, Fontys University of Applied Sciences, Netherlands

Since about 2010, e-learning has been embedded in educational practice and, especially with the Covid-19 pandemic, has become increasingly important. Although much has been written about e-learning, little is known about crucial didactic and pedagogical design principles for e-learning. The study presented in this symposium tried to fill that gap. Based on a systematic literature review, 42 studies (out of 1857 unique hits) were included that address e-learning design in higher education. Open and axial coding were used for the analysis. Two continuums important for e-learning were identified: (1) the continuum of active learning and (2) the continuum of authentic learning. Included studies could be divided on these continuums into four clusters with (slightly) different properties, varying from relatively low to high levels of authenticity, and from teacher-centred to student-centred. Analysis also revealed four crucial aspects for e-learning design: (1) content scaffolding, (2) process scaffolding, (3) peer-to-peer learning, and (4) formative strategies. In general, most e-learning approaches require instructional design that facilitates authentic learning and self-regulation. To help practitioners realise e-learning designs, this presentation provides concrete suggestions for e-learning design.

Collecting ideas of teachers and students to further develop BL. A Group Concept Mapping approach

Presenting Author:Marcel Van der Klink, Zuyd, University of Applied Sciences, Netherlands; **Co-Author:**Miriam Goes, Zuyd University of Applied Sciences, Netherlands

Research conducted during the pandemic revealed the drawbacks of negative experiences with online higher education. In contrast, this study maps the advantages of online education that students and teachers experienced during the pandemic that are worthwhile to include in their curricula in the post-COVID-19 era using Group Concept Mapping (GCM). The application of a digital anonymous brainstorming technique (780 participants, students, and teachers) resulted in 84 ideas (statements) about online education after the pandemic. These statements were sorted in piles by 57 participants who performed roles as educational experts and consultants at the same university. Students and teachers also rated the importance (278 respondents) and feasibility (196 respondents) of these statements. The sorting of the 84 ideas resulted in seven clusters, each of which included 6 to 18 ideas. These clusters referred to very different aspects of online education: didactics, use of technology, planning & scheduling, commitment, efficiency, interactions, and preconditions. This study contributes to our understanding of ideas that end-users, teachers, and students consider to be important and practical. Since these ideas are grounded in their experiences and preferences, they seem to be worthy of consideration, regardless of the degree of blended education that universities aim to provide.

Balanced blend: design principles to promote student learning and psychosocial well-being

Presenting Author:Claudio Vanhees, Centre of Expertise for Effective Education - Thomas More University of Applied Sciences, Belgium; **Co-Author:**Milou De Smet, Centre of Expertise for Effective Education - Thomas More University of Applied Sciences, Belgium

Emergency remote learning (ERL) underlined the need to strive for a well-thought balance in blended higher education design. In terms of combining face-to-face and online learning, but equally in promoting both students' knowledge and skill development, and psychosocial well-being. It is therefore important to consider how blended teaching should be effectively designed, considering both learning and psychosocial outcomes. Current research reports slightly positive effects of blended teaching, yet focuses mainly on learning outcomes, while psychosocial outcomes remain rather understudied. Moreover, often specific tools are examined (tool-oriented), with limited attention to instructional design, i.e. how tools are used to promote effective learning (goal-oriented). A rapid evidence assessment of systematic review studies and meta-analyses was carried out to (a) examine the effectiveness of different blended formats on learning and psychosocial outcomes, compared to face-to-face formats; and (b) map the instructional design principles that effective blended formats adhere to. It was found that blended formats predominantly enhance both learning outcomes and psychosocial well-being, yet do not automatically lead to improved outcomes. Instructional design was identified as a crucial factor to account for differences in effects. We discuss two preconditions and six instructional principles to effectively design balanced blended teaching in higher education.

Session H 3

23 November 2023 16:30 - 18:00
Minor Hall
EAPRIL Cloud Spotlight Session
Workplace learning

Spotlight session Cloud 5: sharing ideas on digitalization and Workplace learning

Keywords: Continuing Professional Development in Teachers, Innovations in Education, Lifelong Learning, Workplace Learning

Interest group: CLOUD 05 - HRD & Workplace learning

The cloud Workplace learning and HRD wants to emphasize learning at the workplaces, including educational institutions. HRD is not neglected, but it is understood to focus more on the organizational level of workplace learning. The focus in the session is to bring into the spotlight research projects and processes conducted by the participants of cloud 5 related to Workplace learning & HRD. The key focus is on the challenges and/or benefits digitalization has bring into workplace learning (e.g. online learning, GhatGPT, etc) but other topics related to Workplace learning & HRD are also welcome. We invite participants to join the session by *bringing your own laptop *preparing max. 10 minutes talk with max two slides (without slides is also possible) *participating with a curious mindset to share and learn from each other. We look forward to an interesting discussion during the session.

Spotlight session Cloud 5: sharing ideas on digitalization and Workplace learning

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

The cloud Workplace learning and HRD wants to emphasize learning at the workplaces, including educational institutions. HRD is not neglected, but it is understood to focus more on the organizational level of workplace learning. The focus in the session is to bring into the spotlight research projects and processes conducted by the participants of cloud 5 related to Workplace learning & HRD. The key focus is on the challenges and/or benefits digitalization has bring into workplace learning (e.g. online learning, GhatGPT, etc) but other topics related to Workplace learning & HRD are also welcome. We invite participants to join the session by *bringing your own laptop *preparing max. 10 minutes talk with max two slides (without slides is also possible) *participating with a curious mindset to share and learn from each other. We look forward to an interesting discussion during the session.

Session H 4

23 November 2023 16:30 - 18:00
Board Room
EAPRIL Cloud Spotlight Session

Creating impact

Keywords: Knowledge Building and Development, Organisation of Educational Research, Practice-based Research (methodology), School Development

Interest group: CLOUD 07 - Research impact on school development

In this workshop we focus on impact. Creating impact is the main goal of practice-based research. Little is known about effective impact strategies for practice-based researchers. In this workshop we use a model to analyse the strategies used by researchers who have been successful in creating impact. The workshop starts with an overview of the most recent scientific insights about impact. Three researchers who have been successful in creating impact as a result of their research will discuss four statements about impacts and explain their own strategies. Participants are invited to join the discussion and reflect on the presented methods to create impact.

Creating impact

Presenting Author:Linda van den Bergh, Fontys Opleidingscentrum Speciale Onderwijszorg, Netherlands; **Presenting Author:**Ditte Lockhorst, Oberon research institute, Netherlands; **Co-Author:**Anje Ros, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Linda Sontag, Inspectie van het Onderwijs, Netherlands; **Co-Author:**Miranda Snoeren, Fontys University of Applied Sciences, Netherlands

In this workshop we focus on impact. Creating impact is the main goal of practice-based research. Little is known about effective impact strategies for practice-based researchers. In this workshop we use a model to analyse the strategies used by researchers who have been successful in creating impact. The workshop starts with an overview of the most recent scientific insights about impact. Three researchers who have been successful in creating impact as a result of their research will discuss four statements about impacts and explain their own strategies. Participants are invited to join the discussion and reflect on the presented methods to create impact.

Session H 5

23 November 2023 16:30 - 18:00
Meeting Room 7
Case study
Higher education, Vocational education

Innovation In Education In Different Contexts

Keywords: Assessment and evaluation, Higher Education, Innovations in Education, Peer Interaction / Learning, Primary School Education, Project-based Learning, Research Cooperation Frameworks, Technology Enhanced Learning, Vocational Education

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

Chairperson: Mirjam Heemskerck - van der Sprong, Netherlands

It takes a village to raise a student teacher

Keywords: Higher Education, Innovations in Education, Primary School Education, Project-based Learning

Presenting Author:Nanke Dokter, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Wendy Wiegers, Fontys University of Applied Sciences, Netherlands

To educate future proof student teachers, we need them to learn how to make responsible decisions in complex situations. To accomplish this, Fontys University of Applied Sciences in Den Bosch designed a curriculum where personalised learning is the key element. After a year of personalised education the

student teachers indicated in the annual evaluation they needed a better framework and more space to learn this way. Therefore we started enterprising education: education where schools and external partners can submit authentic tasks as assignments in a project. With this case study we want to show an example of how bridges can be built. Past year was a big success: student teachers showed they were proud to study this way. Educators and student teachers collaborated more when working at the projects. This collaboration also led to a learning environment that is vibrant and full of energy. Our experiences will be shared at the conference to inspire other educators. The question we are facing at the moment is how this way of working can become more sustainable.

Personalized Learning with ICT: A Collaborative Effort between Vocational and Higher Education

Keywords: Innovations in Education, Research Cooperation Frameworks, Technology Enhanced Learning, Vocational Education

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

With the formation of a VET Research lab Personalized Learning and Teaching with ICT (OWP ICT) in 2018, a new and innovative form of collaboration was chosen by a group of five secondary vocational education and training (VET) schools in the Netherlands, the HAN University of Applied Sciences, IVA Education and the Tilburg University, with financial support of the National Research Organization (NRO). The partners had found each other in the shared desire to research how they could design and implement personalized learning with ICT in secondary vocational education and to discover what this requires of teachers and students. Although the complexity of the innovation was great, the collaboration among the different partners led to improvements in professional development, connection, and the creation of inspiring learning spaces for experimenting with ICT. We'll share and discuss preconditions, experiences and recommendations with the participants.

Improving feedback literacy through formative assessment and comparative judgement

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

Presenting Author:Maarten Goossens, University of Antwerp, Belgium; **Co-Author:**Stephanie Kruijer, University Utrecht, Netherlands

In the course "Introduction to Educational Sciences" at Utrecht University students reported having too little visibility into their learning progress. Therefore, the course was revised in the 2020-2021. 140 students 1st year bachelor participated in the course. The aim was to use feedback more actively and developing feedback literacy of students. One way to give students greater insight into their knowledge and abilities is through the use of formative assessment which incorporates a lot of feedback opportunities. In developing the new feedback opportunities, the starting point was constructivism, which states that feedback is not information that you give unilaterally as a teacher, but an active process in which students proactively engage in obtaining and processing feedback (Winstone & Carless, 2019). Therefore, a switch was made from teacher assessment using rubrics to formative student-assessment through comparative judgement that allowed students to proactively and actively engage. This approach resulted in more feedback at more moments. In order to actively process this feedback, a feedback processing scheme was developed which also enabled students to effectively work with the feedback received. Some conclusions:- Comparative judgement forces to think actively as a student- Increase in amount and variety of feedback - Increase in feedback literacy

Session H 6

23 November 2023 16:30 - 18:00

Concourse

Roundtable

Higher education, Lifelong learning, Workplace learning

Collaborative Learning in Different Contexts

Keywords: Collaborative Learning, Cooperative Learning, Curricula, Higher Education, Innovations in Education, Internships, Knowledge Building and Development, Lifelong Learning, Organisational Learning, Problem Solving

Interest group: CLOUD 01 - Teacher education, CLOUD 10 - Education for Sustainability

Chairperson: Hanneke Maassen, Aeres University of Applied Sciences Wageningen, Netherlands

Boundary learning of teacher training and schools in innovative education programs.

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

Presenting Author:Helma de Keijzer, Fontys Hogescholen, Netherlands; **Presenting Author:**Herma Jonker, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Quinta Kools, Fontys Hogescholen, Netherlands

This roundtable session focus on innovative designs within the field of teacher training. Nowadays, many schools ask for differently educated teachers who can function in new, non-traditional pedagogical contexts (Claessen et al, 2020). Several initiatives can be found in the Netherlands, were teacher training institutes and schools collaboratively develop new programs. The initiatives can be regarded as boundary practices (Zeichner, 2010), as they move at and across the boundaries of their individual educational practices. The aim of this research is to gain insight into the dynamics and challenges of the boundary practices and to the results of the collaboration in terms of intended, implemented and realized curriculum. Five innovative training initiatives (cases) participate in this research. The central research question is: how can these boundary practices be characterized and what challenges, barriers and learning mechanisms play a role? A case study was set up. Document analysis, interviews and storylines were used to get a portrait of the motives, professional beliefs and standards, intentions, and design principles of each initiative, as well as the collaboration process and the frictions that arose. In the round table session, we will facilitate a critical dialogue about the results of the first research phase.

Reciprocity in interorganisational learning communities in health and social care education

Keywords: Collaborative Learning, Cooperative Learning, Internships, Organisational Learning

Presenting Author:Jelly Zuidersma, Hanze University Groningen. University of Applied Sciences, Netherlands

Within healthcare and social care education, students, teachers, supervisors and others are increasingly collaborating and learning in networked learning communities. These communities can take different forms, such as networked internships, interorganisational projects or interdisciplinary networks. In order to improve the success of these networks, four conditions for reciprocal collaboration in networks are important. This research aims to gain more insight into how students, teachers, supervisors and others work and learn together in these reciprocal networks. The research questions are: 1) To what extent are the learning communities already set up according to the conditions of reciprocity? 2) How is reciprocity experienced in the learning communities? 3) To what extent is dialogical and interactive learning given a place in the learning communities? and 4) How is social bonding experienced in the learning communities? A yearly survey will be used amongst the members of in total 15 learning communities with 15-25 members each, throughout three years. The survey consists of the Reciprocity Instrument, Classroom Community scale and dialogical learning.

Strengthening multi-level agency in the ET-TLC learning communities

Keywords: Collaborative Learning, Knowledge Building and Development, Lifelong Learning, Problem Solving

Presenting Author:Maaïke Konings, De Haagse Hogeschool, Netherlands; **Co-Author:**Ellen Sjoer, The Hague University of Applied Sciences, Netherlands;

Co-Author:Marcus Specht, TU Delft, Netherlands; **Co-Author:**Arno Smets, TU Delft, Netherlands

In the 'Energy Transition: Talent in Learning Communities' (ET-TLC) project, three learning communities are set up, in which participants work together across the boundaries of their own organization to contribute to the energy transition. Due to the complexity of the issues that learning communities want to solve and the uncertainties this entails, actors have to deal with dynamics within the learning communities. Actors should therefore be able to pursue their goals and act in accordance with their values, by organizing themselves, operating independently and creating new interactions which might enhance the innovation and impact of the learning community. These kind of agency seems to play an important role at multi levels in a learning community. The research question in this study focuses on: How do individual (people and organizations), joint (group) and collective agency (community level) influence each other in the ET-TLC learning

communities, and how does this contribute to learning, working and innovative capabilities within the entire system? Participatory (design) methods are used to generate relevant data. Based on the first insights a framework for strengthening multi-level agency in the ET-TLC learning communities has been developed.

Session H 7

23 November 2023 16:30 - 18:00

Meeting Room 5

Workshop

Workplace learning

An Example of teacher education in Educational Partnerships – Passion for Learning.

Keywords: Collaborative Learning, Cooperative Learning, Educational Effectiveness and Quality of Education, Team Learning

Interest group: CLOUD 01 - Teacher education

During this workshop, participants will be actively introduced to the unique project Passion for Learning. In this project, the University of Applied Sciences and a number of secondary schools (working together in an educational partnership) join forces to train students to become teachers. Given time, this workshop is limited to the first year of the four-year undergraduate program. After a short presentation of the background of the project, the participants will be divided into groups for various activities. The participants take part in all activities. The activities give multiple perspectives at the integrated program by doing puzzles, flipping the classroom, simulations and discussions. At the end of this workshop, participants will know how this project was designed and what the added value of educating together is. They will also have an insight into the quality assurance of the project.

An Example of teacher education in Educational Partnerships – Passion for Learning.

Presenting Author: Jacqueline Gerrits, Han university of applied sciences, Netherlands; **Co-Author:** Loes Nobbe, HAN University of Applied Sciences, Netherlands; **Co-Author:** Yvonne Laurijs, HAN University of Applied Sciences, Netherlands; **Co-Author:** Kaylee Lamers, HAN University of Applied Sciences, Netherlands

During this workshop, participants will be actively introduced to the unique project Passion for Learning. In this project, the University of Applied Sciences and a number of secondary schools (working together in an educational partnership) join forces to train students to become teachers. Given time, this workshop is limited to the first year of the four-year undergraduate program. After a short presentation of the background of the project, the participants will be divided into groups for various activities. The participants take part in all activities. The activities give multiple perspectives at the integrated program by doing puzzles, flipping the classroom, simulations and discussions. At the end of this workshop, participants will know how this project was designed and what the added value of educating together is. They will also have an insight into the quality assurance of the project.

Session H 8

23 November 2023 16:30 - 18:00

Meeting Room 1

Roundtable

Higher education, Vocational education

Practice-Based Research in Higher & Vocational Education

Keywords: Collaborative Learning, Creativity, Doctoral Education (PhD education), Educational Policy, Higher Education, Knowledge Building and Development, Practice-based Research (methodology), STEM, Vocational Education

Interest group: CLOUD 11 - Practice-based Research Methodology

Chairperson: Sarah Bichler, Ludwig-Maximilians-Universität (LMU), Germany

Designing Public Engagement with Hannah Arendt and Art (PhD)

Keywords: Doctoral Education (PhD education), Higher Education, Knowledge Building and Development, Practice-based Research (methodology)

Presenting Author: Kiran van den Brande, Aeres University of Applied Sciences Wageningen, Netherlands; **Co-Author:** Frank De Jong, Aeres University of Applied Sciences & Open University Heerlen, Netherlands

This Round Table proposal sheds light on my PhD-thesis which investigates the potential of art-based engagement (ABE) methods and design principles to enhance public engagement (PE) within universities of applied sciences (UoAS) professorships. As higher education institutions increasingly focus on innovation and societal impact, engaging students, teachers, and professionals becomes vital. ABE-methods foster dialogue and creativity, creating more inclusive and collaborative research environments. The research comprises four interconnected studies: a conceptual study linking Hannah Arendt's Human Condition with ABE-methods; a scoping literature review on ABE-methods in higher education and practice-based research; an exploratory mixed-methods study examining ABE-methods in UoAS professorships; and a design-based research study implementing and evaluating PE interventions using ABE-methods. These studies provide insights into the potential of ABE-methods to foster meaningful engagement among diverse stakeholders, offering valuable guidance for UoAS as they strive to create more impactful research environments.

Measures to support students' transitions from secondary vocational to higher professional education

Keywords: Educational Policy, Higher Education, Practice-based Research (methodology), Vocational Education

Presenting Author: Isabel Voets, CAOP, Netherlands; **Co-Author:** Etienne van Nuland, CAOP, Netherlands; **Co-Author:** Sifra van Zijtveld, CAOP, Netherlands; **Co-Author:** Harm Biemans, Wageningen University, Netherlands

During the corona pandemic, physical education in secondary vocational education (mbo) and higher professional education (hbo) was only possible to some extent. This may have negatively affected students' processes of orientation on, and integration into, a new hbo study programme. Presumably, these restrictions have led to an increased likelihood of inadequate study choices or fewer and less successful transitions from mbo to hbo.

This study focuses on support measures taken by Dutch educational institutions to mitigate the possible adverse effects of the corona pandemic on the transition from mbo to hbo and a successful start in the hbo study programme. Which measures are taken, what are the results, and what are effective elements of these support measures? The theoretical model of Tinto is central to this research. The research takes place in collaboration with mbo and hbo institutions in the domains of technical and green education. The approach consists of a combination of desk research, interviews with stakeholders, a student survey and analysis of administrative data on progression, dropout and study success. With this roundtable we want to present and discuss our research project.

Design process, problem orientation and interdisciplinarity in the promotion of STEM competences

Keywords: Collaborative Learning, Creativity, Practice-based Research (methodology), STEM

Presenting Author: Anja Küttel, Pädagogische Hochschule Freiburg, Switzerland; **Co-Author:** Helene Kolly, University of Fribourg, Switzerland; **Co-Author:** Alexander Koch, University of Teacher Education Lucerne (PH Luzern), Switzerland; **Co-Author:** Patrick Roy, University of Fribourg, Switzerland; **Co-Author:** Delphine Schumacher, University of Fribourg, Switzerland

Our project is dedicated to the role and significance of design processes, object conceptions, problem orientation and interdisciplinarity for the promotion of STEM competences in compulsory school. In a long-term study (2021-2024) we want to promote the formation of future-oriented technical competencies (Zaid, 2017, Ropohl, 2009, Schmayl 2013) in general education schools. In a community of practice (Wenger, 1998), researchers, engineers and teachers pursue different themes with different objectives. Teaching projects are being developed in a discursive collaboration that enable learning that is as authentic as possible based on a design process. These teaching projects will be carried out by the teachers in their classes, video recorded and jointly analysed and

discussed. The aim is to identify relevant aspects for the promotion of STEM competences in a design-oriented teaching project and to develop instructional methods and material. In addition, we explore discursive and cooperative methods that can help teachers to continue to develop innovative teaching and authentic projects after the end of the project. Finally, video analyses of students' actions in class will be used to describe the importance of object conception for technical concept formation and STEM competence building.

Session H 9

23 November 2023 16:30 - 18:00

Meeting Room 4

Workshop

Workplace learning

From Partners in Crime to Partners that Shine: A workshop to Monitor and Evaluate Partnerships

Keywords: Assessment and evaluation, Educational Effectiveness and Quality of Education, Innovations in Education, School Development

Interest group: CLOUD 07 - Research impact on school development

School-University Partnerships (SUPs) are long-term collaborations between multiple stakeholders, aimed at improving teaching and learning. Despite advances in the field of SUPs, their monitoring and evaluation still remain challenging. When stakeholders gather evidence about SUPs' success, they are able to make decisions based on evidence. Therefore, improving SUPs' monitoring and evaluation may improve the chances of sustaining the innovations developed during the SUP. This workshop aims at supporting participants in monitoring and evaluating their current partnerships by introducing them to the SUP.ME (school-university partnership monitoring and evaluation) framework. By the end of the workshop, participants will gain awareness about factors influencing SUPs in general, will use the framework to assess specific factors in their current collaborations, and improve the monitoring and evaluation strategy of their SUPs. Participants' feedback will contribute to the improvement of the framework and thereby advance research in this field. The workshop will follow an action-oriented approach where participants will create a tangible artifact (i.e., a monitoring and evaluation plan) that they may apply to their current or future collaborations.

From Partners in Crime to Partners that Shine: A workshop to Monitor and Evaluate Partnerships

Presenting Author: EDNA MILENA SARMIENTO MARQUEZ, Tallinn University, Estonia; **Co-Author:** Luis P. Prieto, Group of Intelligent & Cooperative Systems / Education, Media, Informatics & Culture (GSIC/EMIC), School of Telecommunications Engineering, Universidad de Valladolid, Spain, Spain; **Co-Author:** Gerti Pishtari, Department for Continuing Education Research and Educational Technologies, Center for Digitalization in Lifelong Learning, Donau University Krems, Austria, Austria

School-University Partnerships (SUPs) are long-term collaborations between multiple stakeholders, aimed at improving teaching and learning. Despite advances in the field of SUPs, their monitoring and evaluation still remain challenging. When stakeholders gather evidence about SUPs' success, they are able to make decisions based on evidence. Therefore, improving SUPs' monitoring and evaluation may improve the chances of sustaining the innovations developed during the SUP. This workshop aims at supporting participants in monitoring and evaluating their current partnerships by introducing them to the SUP.ME (school-university partnership monitoring and evaluation) framework. By the end of the workshop, participants will gain awareness about factors influencing SUPs in general, will use the framework to assess specific factors in their current collaborations, and improve the monitoring and evaluation strategy of their SUPs. Participants' feedback will contribute to the improvement of the framework and thereby advance research in this field. The workshop will follow an action-oriented approach where participants will create a tangible artifact (i.e., a monitoring and evaluation plan) that they may apply to their current or future collaborations.

Session I 1

24 November 2023 08:30 - 10:00

Board Room

Workshop

Vocational education

Happiness is a verb: Strengthening student well-being by using qualities combined with sports.

Keywords: Cognitive Skills & Development, Emotions and Emotional Development, Medical & Health Education, Well-being & Engagement

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

The theoretical basis of the student well-being workshop lies in positive psychology, a combination of four theories: Well-being theory (Seligman, 2011), Broaden-and-build theory (Fredrickson, 2004), Flow theory (Csikszentmihalyi, 2014) and Self-determination theory (Deci & Ryan, 2000). The intervention is a creative translation of core qualities for young people in a web-based blended learning with theory, tests, logs, mental, social, and physical exercises during sports. Students use core qualities, maximize them with flow experiences and learn to remove barriers to using qualities. During the workshop, good examples of well-being support are shown and linked to theory and the results of the research are discussed. The aim of the workshop is to experience what it is like to do mental, social, and physical exercises with qualities and what effect this can have on your well-being. Comfortable shoes and clothing are preferred when participating. The learning result is that you are inspired and provided with sufficient tools to practically get started with student well-being at your own workplace. Supporting student well-being is a particularly topical and relevant theme due to the accelerated mental health problems of young people during and after the pandemic.

Happiness is a verb: Strengthening student well-being by using qualities combined with sports.

Presenting Author: Judith van Driel, Albeda College, Netherlands; **Co-Author:** Erik Bansberg, Albeda College, Netherlands

The theoretical basis of the student well-being workshop lies in positive psychology, a combination of four theories: Well-being theory (Seligman, 2011), Broaden-and-build theory (Fredrickson, 2004), Flow theory (Csikszentmihalyi, 2014) and Self-determination theory (Deci & Ryan, 2000). The intervention is a creative translation of core qualities for young people in a web-based blended learning with theory, tests, logs, mental, social, and physical exercises during sports. Students use core qualities, maximize them with flow experiences and learn to remove barriers to using qualities. During the workshop, good examples of well-being support are shown and linked to theory and the results of the research are discussed. The aim of the workshop is to experience what it is like to do mental, social, and physical exercises with qualities and what effect this can have on your well-being. Comfortable shoes and clothing are preferred when participating. The learning result is that you are inspired and provided with sufficient tools to practically get started with student well-being at your own workplace. Supporting student well-being is a particularly topical and relevant theme due to the accelerated mental health problems of young people during and after the pandemic.

Session I 2

24 November 2023 08:30 - 10:00

Meeting Room 1

Workshop

Higher education

One for all, all for one: Constructing narratives with multiple voices

Keywords: Higher Education, Medical & Health Education, Practice-based Research (methodology), Research-based Learning

Interest group: CLOUD 11 - Practice-based Research Methodology

Ageing societies face complex challenges as professional care decreases and care technology increases. Simultaneously, there is a call for more humanistic and integrated healthcare and educational systems. Practice development is an approach to healthcare transformation based on principles of collaboration, inclusion and participation as it aims to accommodate such humanistic and educational needs. It is 'fundamentally about person-centred practice that promotes safe and effective workplace cultures where all can flourish' (Manley et al., 2021, p 3). In a project exploring person-centred use of technology in older persons care, a Dutch university collaborated with their social and primary care partners in creating opportunities for student nurses to conduct (learn 'about', 'how to' and 'from') case studies. Whilst the project had a positive impact within the healthcare and educational systems, it was not without its challenges. Participants in this workshop will travel through a carousel of dialogues as they discuss and define claims, concerns and issues of such transmutal projects from multiple stakeholder perspectives. Such considerations are important for project leaders and the process useful when initiating such projects if all are to flourish in the intended learning environments. The findings and learnings from the research project will also be shared.

One for all, all for one: Constructing narratives with multiple voices

Presenting Author: Shaun Cardiff, Fontys University of Applied Sciences, Netherlands; **Co-Author:** Teatske van der Zijpp, Fontys University of Applied Science, Netherlands

Ageing societies face complex challenges as professional care decreases and care technology increases. Simultaneously, there is a call for more humanistic and integrated healthcare and educational systems. Practice development is an approach to healthcare transformation based on principles of collaboration, inclusion and participation as it aims to accommodate such humanistic and educational needs. It is 'fundamentally about person-centred practice that promotes safe and effective workplace cultures where all can flourish' (Manley et al., 2021, p 3). In a project exploring person-centred use of technology in older persons care, a Dutch university collaborated with their social and primary care partners in creating opportunities for student nurses to conduct (learn 'about', 'how to' and 'from') case studies. Whilst the project had a positive impact within the healthcare and educational systems, it was not without its challenges. Participants in this workshop will travel through a carousel of dialogues as they discuss and define claims, concerns and issues of such transmutal projects from multiple stakeholder perspectives. Such considerations are important for project leaders and the process useful when initiating such projects if all are to flourish in the intended learning environments. The findings and learnings from the research project will also be shared.

Session I 3

24 November 2023 08:30 - 10:00

Meeting Room 6

EAPRIL Cloud Spotlight Session

Workplace learning

Designing and delivering meaningful dual-use dilemma trainings: in search of good practices

Keywords: Higher Education, Organisational Learning, Training and Development, Training of Young Researchers

Interest group: CLOUD 14 - The incubator cloud for organisational learning ideas

This session consists of two parts.

1) present: 2023 EAPRIL Thematic Track: Designing and delivering meaningful dual-use dilemma trainings: in search of good practices* (presenter, Tom De Schryver) 2) future: Learning and development coaches as guides of learning (presenter Ankie Boelema & Marco Mazereeuw, moderator Tom)

--

Compliance, ethical, security and business dilemma trainings are often considered a dull moment of time (Bradshaw, 2013; De Schryver, 2023; Reeves et al, 2021; Schürmann et al., 2020). Yet, as the current geopolitical turmoil has shown, many of these dilemmas are highly relevant for society at large. It has become increasingly difficult to assess whether business transactions have genuine commercial versus national security interests (see also e.g., Winge, 2023). Historical ignorance of these dilemmas has led to a much less safer place to live in (e.g. Corra, 2006). Training for these dilemmas are most urgent in business where you expect it the least. Business and their supply chains dealing with dual-use goods; i.e. goods, software and technology that can be used for both civilian and military applications; need to invest in training. L & D professionals working in these dual use contexts face a huge challenge. On the one hand, it is clear that dual-use trainings should increase the bar for the workforce. They should help professionals to increase awareness about the security risks and to combine wise ethical judgement with professional competence. On the other hand, the ways to design and to deliver these dual use training in contexts that matter are less understood.

With this thematic track we want to collect accounts of good dual-use training initiatives. One area where important steps to raise awareness are taken is the field of chemical and biosecurity field (e.g. Shaw, 2016). Recently, there is a surge in grass root training initiatives that promote some form of active learning in the field of biosecurity (e.g. Novossiolova et al. 2021; Geminden & Vinke, 2023). These are promising examples of courses aimed at increasing the awareness of bio-security risks. The purpose of this EAPRIL cloud 14 thematic track is to facilitate inter-disciplinary exchange regarding the scope of such training programmes and the methods that could be used for their delivery and impact assessment.

Designing and delivering meaningful dual-use dilemma trainings: in search of good practices

Presenting Author: Tom De Schryver, Ministerie van Defensie - Nederlandse Defensie Academie, Netherlands; **Presenting Author:** ankie boelema, Firda, Netherlands; **Presenting Author:** Marco Mazereeuw, NHL Stenden University of Applied Sciences, Netherlands

This session consists of two parts.

1) present: 2023 EAPRIL Thematic Track: Designing and delivering meaningful dual-use dilemma trainings: in search of good practices* (presenter, Tom De Schryver) 2) future: Learning and development coaches as guides of learning (presenter Ankie Boelema & Marco Mazereeuw, moderator Tom)

--

Compliance, ethical, security and business dilemma trainings are often considered a dull moment of time (Bradshaw, 2013; De Schryver, 2023; Reeves et al, 2021; Schürmann et al., 2020). Yet, as the current geopolitical turmoil has shown, many of these dilemmas are highly relevant for society at large. It has become increasingly difficult to assess whether business transactions have genuine commercial versus national security interests (see also e.g., Winge, 2023). Historical ignorance of these dilemmas has led to a much less safer place to live in (e.g. Corra, 2006). Training for these dilemmas are most urgent in business where you expect it the least. Business and their supply chains dealing with dual-use goods; i.e. goods, software and technology that can be used for both civilian and military applications; need to invest in training. L & D professionals working in these dual use contexts face a huge challenge. On the one hand, it is clear that dual-use trainings should increase the bar for the workforce. They should help professionals to increase awareness about the security risks and to combine wise ethical judgement with professional competence. On the other hand, the ways to design and to deliver these dual use training in contexts that matter are less understood.

With this thematic track we want to collect accounts of good dual-use training initiatives. One area where important steps to raise awareness are taken is the field of chemical and biosecurity field (e.g. Shaw, 2016). Recently, there is a surge in grass root training initiatives that promote some form of active learning in the field of biosecurity (e.g. Novossiolova et al. 2021; Geminden & Vinke, 2023). These are promising examples of courses aimed at increasing the awareness of bio-security risks. The purpose of this EAPRIL cloud 14 thematic track is to facilitate inter-disciplinary exchange regarding the scope of such training programmes and the methods that could be used for their delivery and impact assessment.

Session I 4

24 November 2023 08:30 - 10:00

Conference Room
Workshop
Secondary education

Making a drama out of learning: Quick-start drama techniques from Iceland for language learning

Keywords: Collaborative Learning, Creativity, Language Education, Secondary School Education

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

A wide range of actions are available to teachers for organizing students, materials, space, and time to achieve their learning goals. General competences supporting effective language teaching – particularly in combination with a collaborative, communicative approach to language learning – align well with commonly practiced drama and theater techniques. Relationship building, communication, engagement strategies, and structuring an effective learning environment are all features of effective classroom management (Stanzione & Mackenzie, p. 4-5) and effective language teaching. Incorporating drama techniques to achieve overlapping goals of effective language teaching and effective classroom management offers the possibility of developing practical skills and knowledge of mutual benefit to both teachers and students. Arguments for applying drama methods to enhance (language) learning include pedagogical possibilities of:

- encouraging learners to communicate for authentic, real-life purposes
- transforming language learning into a more active and motivating experience
- helping learners gain the confidence and self-esteem needed to use language spontaneously
- promoting more memorable (language) learning through direct experience
- stimulating learners' critical intellect, imagination, and creativity developing learners' ability to empathize with others and become better communicators. (Alvarado, 2017).

Making a drama out of learning: Quick-start drama techniques from Iceland for language learning

Presenting Author:Charlotte Eliza Wolff, University of Iceland - School of Education, Iceland; **Co-Author:**Ingibjörg Ásta Tómasdóttir, University of Iceland, Iceland; **Co-Author:**Ólafur Giðmundsson, University of Iceland School of Education, Iceland

A wide range of actions are available to teachers for organizing students, materials, space, and time to achieve their learning goals. General competences supporting effective language teaching – particularly in combination with a collaborative, communicative approach to language learning – align well with commonly practiced drama and theater techniques. Relationship building, communication, engagement strategies, and structuring an effective learning environment are all features of effective classroom management (Stanzione & Mackenzie, p. 4-5) and effective language teaching. Incorporating drama techniques to achieve overlapping goals of effective language teaching and effective classroom management offers the possibility of developing practical skills and knowledge of mutual benefit to both teachers and students. Arguments for applying drama methods to enhance (language) learning include pedagogical possibilities of:

- encouraging learners to communicate for authentic, real-life purposes
- transforming language learning into a more active and motivating experience
- helping learners gain the confidence and self-esteem needed to use language spontaneously
- promoting more memorable (language) learning through direct experience
- stimulating learners' critical intellect, imagination, and creativity developing learners' ability to empathize with others and become better communicators. (Alvarado, 2017).

Session I 5

24 November 2023 08:30 - 10:00

Minor Hall
Case study
Higher education

Collaborative Learning in Higher Education

Keywords: Blended Learning, Collaborative Learning, Higher Education, Initial Teacher Education (Pre-service), Music & Arts Education, Project-based Learning, Secondary School Education, Teaching Approaches, Team Learning, Technology Enhanced Learning

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

Chairperson: Adriaan Vervoort, Belgium

Teamteaching and co-teaching in Dance-teacher-education inspired by the Ubuntu philosophy

Keywords: Collaborative Learning, Higher Education, Music & Arts Education, Team Learning

Presenting Author:Arienne Zwijnenbu, Codarts Rotterdam, Netherlands

Within the Dance Teacher Education program we successfully use teamteaching and co-teaching. An important spearhead in the Dance teacher training is the Ubuntu philosophy: I am because you are, with respect for differences. This stems from our profile and mission: "Teacher around the world". To achieve this, it is important that students learn to connect and work together. Which also means that the teachers team leads students by example. In 2019, the teachers department revised the curriculum towards projectbased learning. This already required from the team to work more collaboratively. At the same time we had to compress the at that time existing program. To make this a success, we started co-teaching experiments. This also included a study of co-teaching and team-teaching throughout our institute out of which we gained valuable insights. We believe and hope that sharing our experiences will inspire others and contribute to the theme "One for All, All for One: Building bridges by working together."

Blended Learning in Design-Based Education: Inspiring Templates that Support Teachers

Keywords: Blended Learning, Collaborative Learning, Teaching Approaches, Technology Enhanced Learning

Presenting Author:Francine Behnen, NHL Stenden, Academie Educatie vo & mbo, Netherlands; **Co-Author:**Greet van Terwisga, NHL University of Applied Sciences, Netherlands; **Co-Author:**Jort Harmsen, NHL University of Applied Sciences, Netherlands; **Co-Author:**Margreeth Themmen, NHL University of Applied Sciences, Netherlands; **Co-Author:**Patrick van Aalst, NHL University of Applied Sciences, Netherlands

Design-Based Education (DBE) is a pedagogical approach that involves collaboration between students, teachers, and workplace experts to solve real-life problems and learn from workplace practices. However, physical facilities can limit face-to-face learning capacity, making it challenging to implement DBE. To address this issue, NHL Stenden University of Applied Sciences developed templates within the Learning Management System (LMS) to support teachers in designing blended DBE courses, combining online and face-to-face learning processes. Four template prototypes were developed, each focusing on a different approach to learning within DBE. The templates allow teachers to add or delete any items they wish. The templates helped identify design gaps in the structure of the courses, functioning not only as an inspiration tool but also as a reflection tool, and have thus been successful in aiding and inspiring teachers to design blended DBE courses. A deeper analysis of the interviews is still underway. Further updates on the templates' potential to support teachers in adopting the university's educational concept of DBE will be discussed at the EAPRIL 2023 conference.

Coherence through transnational school/uni-collaboration – teach what you preach

Keywords: Collaborative Learning, Initial Teacher Education (Pre-service), Project-based Learning, Secondary School Education

Presenting Author:Christine Schmider, Université Côte d'Azur, France

I will present a collaborative out of school/uni project for third year students of a French German binational teacher education bachelor and baccalaureate pupils of the Lycée Calmette in Nice/France in Humanities. The project is based on a creative reading, writing and theatre workshop on the life of Eva Freud, granddaughter of Sigmund Freud and former student of the Lycée Calmette during the Second World War. The project was based on authentic documents of the school archives, the Sigmund Freud Archives at the Library of Congress and the correspondence between Eva Freud and a friend of her, Hélène Doub, who hid in the sea alps to escape the nazi deportation. These historical sources and letters shed light on the political and historical situation and the female condition of the 40s in France, as Eva Freud died from an illegal abortion and allow an interdisciplinary learning and teaching approach. Different aspects of the project – its transnational dimension, its task-based approach, its transdisciplinary perspective, and its out of school/uni setting contribute to an intercultural awareness and a coherent professionalization of the students, enabling them to experience the project-based pedagogical approach that they will have to implement later in their own teaching.

Session I 6

24 November 2023 08:30 - 10:00

Meeting Room 7

Case study

Higher education, Lifelong learning

Pre-Service Teacher Education in Higher Education

Keywords: 21st Century Learning, Deep-level and Profound Learning, Initial Teacher Education (Pre-service), Labour Market & Formal Learning, Lifelong Learning, Professional Development, Professionalisation of Educators, Reading, Teacher Thinking, Teaching Approaches, Writing

Interest group: CLOUD 01 - Teacher education, CLOUD 05 - HRD & Workplace learning

Chairperson: Anthony Thorpe, University of Roehampton, United Kingdom

Unplugged: teaching digital literacy in pre-service teacher education.

Keywords: 21st Century Learning, Deep-level and Profound Learning, Initial Teacher Education (Pre-service), Teacher Thinking

Presenting Author:Henk La Roi, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Roland Bruijn, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Daniëlle van den Brink, Windesheim University of Applied Sciences, Netherlands; **Co-Author:**Anneke Smits, Windesheim University, Netherlands

Giving digital literacy an appropriate place in the already overloaded curriculum of teacher education programs proves challenging. Also, more knowledge about effective ways to guide pre-service teachers in digital literacy is needed. When offered the chance, two teacher educators/researchers seized the opportunity to design an elective course (30 ECTS) to enhance the digital literacy of pre-service teachers and their competencies to coach their prospective students in this area. The design process allowed them to learn effective ways to guide students' digital literacy. The project started with conceptualizing digital literacy and formulating basic teaching principles for the course. The same teacher educators taught and evaluated the course in two consecutive groups. Two researchers were involved in guest lectures and evaluations of the course. While the basic principles of our course seem adequate, we recognize the need to address the issue of students opting out of engagement in thought processes, particularly in larger class sizes. Finding solutions to these challenges will be a priority moving forward.

Engaging Professionals in Lifelong Learning at Universities of Applied Sciences

Keywords: Labour Market & Formal Learning, Lifelong Learning, Professional Development, Professionalisation of Educators

Presenting Author:Kiran van den Brande, Aeres University of Applied Sciences Wageningen, Netherlands

I am a coordinator of lifelong learning at a university of applied sciences in the Netherlands, I worked with teachers, team leaders, and heads of faculty to promote lifelong learning at a University of Applied Science. The rapidly changing environment necessitates continuous upskilling to prevent unemployment, and traditional providers lack the capacity to meet this demand. Universities of Applied Sciences must adapt to educate professionals, presenting cultural, financial, and organizational challenges. These institutions must navigate questions regarding investments, expected returns, and the relevance of their programs while adapting to the unique needs of lifelong learners. This case study explores these complexities and aims to foster open dialogue on implementing lifelong learning programs effectively.

Fostering Scientific Reading and Writing Competencies in Future Teachers

Keywords: Initial Teacher Education (Pre-service), Reading, Teaching Approaches, Writing

Presenting Author:Robert Reuter, University of Luxembourg, Luxembourg; **Co-Author:**Christian Meyers, University of Luxembourg, FLSHASE, Luxembourg;

Co-Author:Luc Nijs, University of Luxembourg, Luxembourg

The Bachelor in Educational Sciences (BSCE) and the Bachelor in Music Teaching (BEM) offer stimulating teacher training that combines academic and practical knowledge. As in many other initial teacher training programmes, the development of a scientific stance and of scientific reading and writing competencies are important objectives here. In the BSCE, first-year students have to collaboratively write a review of the literature, where they develop an empirically grounded answer to a self-chosen research question. The aim here is to contribute to the overall objective of becoming a reflective practitioner. In the BEM, second-year students are introduced to the practice of scientific reading and writing through a combination of individual and collective practices, related to the different stages of the research process. The aim of the course is to promote autonomous and informed critical thinking about music educational practices and to connect scientific reading and writing competencies to their musical and pedagogical competencies. Here, we will describe, analyse, and critically evaluate our own higher education teaching practices, based on observations of our students' learning processes and the products they were able to deliver. We will also discuss possible lessons learned that might lead to adaptations in our respective training programmes.

Session I 7

24 November 2023 08:30 - 10:00

Meeting Room 5

Workshop

Primary education

Building bridges for inclusive education

Keywords: Collaborative Learning, Educational Policy, Equality / Education for All, Inclusivity

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

This workshop is about building bridges within and between schools and partners in the social domain to strive toward inclusive education. We aim to inspire and activate participants to design tools that can support collaboration for (more) inclusion. First, we will briefly present a case study of a partnership of schools in The Netherlands 'Zaan Primair'. Then, we will use the method of design thinking in pressure cooking-version. In three 'sprints' that are limited in time, participants will design a tool. The first sprint is focused on exploring the theme and an aspect that will be focused on. The second sprint is for elaboration and brainstorming about possible tools. The third sprint is for selecting a tool that is both valuable and feasible and to design an outline for this tool: what will it look like, who can use it, in what occasions and how? We will close the session with pitches from all groups of participants to share their ideas.

Building bridges for inclusive education

Presenting Author:Linda van den Bergh, Fontys Opleidingscentrum Speciale Onderwijszorg, Netherlands; **Co-Author:**ilonka van der Sommen, Fontys OSO, Netherlands; **Co-Author:**karin diemel, Fontys University of Applied Sciences, Netherlands

This workshop is about building bridges within and between schools and partners in the social domain to strive toward inclusive education. We aim to inspire and activate participants to design tools that can support collaboration for (more) inclusion. First, we will briefly present a case study of a partnership of schools in The Netherlands 'Zaan Primair'. Then, we will use the method of design thinking in pressure cooking-version. In three 'sprints' that are limited in time, participants will design a tool. The first sprint is focused on exploring the theme and an aspect that will be focused on. The second sprint is for elaboration and brainstorming about possible tools. The third sprint is for selecting a tool that is both valuable and feasible and to design an outline for this tool: what will it look like, who can use it, in what occasions and how? We will close the session with pitches from all groups of participants to share their ideas.

Session I 8

24 November 2023 08:30 - 10:00

Concourse

Roundtable

Higher education, Primary education, Workplace learning

Diversity & Inclusivity In Different Contexts

Keywords: Continuing Professional Development in Teachers, Culture and Education, Diversity, Emotions and Emotional Development, Equality / Education for All, Game-based Learning / Gamification, Higher Education, Inclusivity, Learning and Developmental Difficulties/Disabilities, Primary School Education

Interest group: CLOUD 02 - Educators' professional development, CLOUD 04 - Improving learning and well-being, CLOUD 08 - Diversity & equality in different contexts

Chairperson: Olalekan Elijah OJEDOKUN, Nigeria

Dutch and Flemish HE-Teachers their understandings and experiences with inclusion: pilot survey

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

Presenting Author: Tisja Korthals Altes, Windesheim University, Netherlands; **Presenting Author:** martijn willemse, Windesheim University of applied sciences, Netherlands; **Co-Author:** Sui Lin Goei, Windesheim University of Applied Sciences, Netherlands; **Co-Author:** Melanie Ehren, VU University Amsterdam, Netherlands

Higher education teachers play a crucial role in establishing inclusive learning environments for every student (Cotan, 2021; Dallas, 2014; O'Shea, 2016). However, there is a knowledge gap on how higher education teachers understand inclusion (Stentiford and Koutsouris, 2020). To offer an insight in higher education teachers' understanding and experience with inclusion, we conducted a systematic literature review, which showed the importance of considering the context of higher education teachers (Korthals Altes et al., submitted/in preparation). Knowledge on this topic for the Dutch and Flemish context of higher education teachers is lacking. Therefore, it is important to answer the following central question of our current study: *How do Dutch and Flemish HE-teachers understand and experience inclusion?* Data is collected through a survey and follow-up in-depth interviews with higher education teachers at 8 study programs spread across four higher education institutions in the Netherlands and Flanders. The themes of the survey are determined by the outcomes of the earlier mentioned literature review and the topic list of the interviews is construed from the preliminary outcomes of the survey and a simultaneous survey among students. In this roundtable discussion we would like to present and reflect on a pilot survey for this study.

Let's play for intercultural pedagogy: designing didactic material to talk about diversity

Keywords: Continuing Professional Development in Teachers, Culture and Education, Diversity, Game-based Learning / Gamification

Presenting Author: MARIBEL CALDERON, Universidad Católica Silva Henríquez, Chile; **Co-Author:** Cecilia Millan, Universidad Católica Silva Henríquez, Chile; **Co-Author:** Andrea Lopez, Universidad Católica Silva Henríquez, Chile; **Co-Author:** Paula Guerra, Universidad Católica Silva Henríquez, Chile

Professional learning requires cognitive and emotional commitment, along with the ability and willingness to examine oneself and conceive alternatives for improvement or change (Avalos, 2011). It is, then, a difficult process. Even more, in working with diversity groups. There is some evidence about teacher practice in the classroom which shows discrimination and an explicit and implicit prejudice towards the migrant population, heteronormativity and a weak recognition of gender identities and sexual diversities predominate in the schools. Also in the school contexts, there are few adaptations to respond to the diverse realities of students with a restricted vision of content and assessments to address diversity. The aim of the project was to develop didactic material to teach in diversity from an intercultural approach. It was expected that this material foster reflection about intercultural practice among schoolteachers in a context of increasing diversity among students, and promote an intercultural perspective in preservice teachers who are working in field experience that request a complex perspective about diversity. Results of the process of design and evaluation with teacher and student are shown and discussed.

Building bridges between professions in primary education

Keywords: Emotions and Emotional Development, Inclusivity, Learning and Developmental Difficulties/Disabilities, Primary School Education

Presenting Author: Rosalina Boer-Wirken, HZ University of Applied Sciences, Netherlands; **Co-Author:** Marieta Rosendaal, HZ University of Applied Sciences, Netherlands

This practice-based research aims to introduce pedagogues in primary schools, allowing an interdisciplinary collaboration between primary school teachers and pedagogues in order to stimulate the cognitive, behavioral and social-emotional development of primary school pupils. Furthermore, the diverseness of pupils' learning and developmental needs can be met easier. The central research question is: *How can pedagogues become a sustainable part of the team of professionals in primary schools that constructively promotes the well-being and development of pupils?*

To answer this research question, a pilot experiment had been carried out during the last two semesters. In this pilot, a graduation student of Pedagogics collaborated with teachers in one primary school. The pedagogue in training provides support by focusing on pupils' behavioral and social-emotional development, so the teachers are given time to focus mainly on pupils' learning needs and cognitive development. In regularly organized interdisciplinary learning communities, the student, teachers and researchers shared experiences and discussed all positive and challenging events they faced over the past time. Data were generated and during the following years, this pilot will be extended with more graduation students in more schools, to further explore the concrete role of pedagogues in schools.

Session J 1

24 November 2023 10:10 - 11:40

Board Room

Present & Discuss

Primary education, Secondary education

School Development in Primary & Secondary Education

Keywords: Collaborative Learning, Continuing Professional Development in Teachers, Curricula, Leadership Development, Leadership Styles, Primary School Education, Professional Development, Professional identity, Research-based Learning, School Development, Secondary School Education

Interest group: CLOUD 02 - Educators' professional development, CLOUD 07 - Research impact on school development, CLOUD 12 - Leadership in Education

Chairperson: Essi Ryymin, Häme University of Applied Sciences, Finland

Succession planning and leadership development in schools: action research.

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

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

Schools and school boards in Flanders struggle with an increasing shortage of candidates for school leadership functions. Moreover, a more systematic and proactive policy on career management and leadership succession is needed, e.g. to identify and develop leadership potential and aspiration in school teams. The current study aims to contribute to such a career policy for teachers and potential school leaders in primary education. The central research question is: "How can schools and school boards take action to work on succession planning and leadership development, to increase the number of candidates interested in a leadership career?". In a co-creative process with 2 schools and 3 school boards, we designed and tested theory-and-practice based actions tailored to each participant. We evaluated the implementation of these the actions, to gain insight into facilitating and inhibiting factors, as well as the impact of each action on teachers' interest in a future career as school leader. We conclude that through this study, we developed feasible actions on succession planning and leadership development. These interventions can act as good examples of practice for schools and school boards to create a systematic, proactive career policy for teachers and potential school leaders in primary education.

Exploring the role of research culture in primary teacher involvement in inquiry-based working

Keywords: Primary School Education, Professional Development, Research-based Learning, School Development

Presenting Author:Yujiao Luo, Ghent University, Belgium; **Co-Author:**Hanne Tack, Ghent University, Belgium; **Co-Author:**Martin Valcke, Ghent University, Belgium; **Co-Author:**Huang Zuo, South China Normal University, China; **Co-Author:**Ruben Vanderlinde, Ghent University, Belgium

A supportive research culture is crucial for promoting teacher involvement in inquiry-based working. There is, yet, a lack of empirical evidence on how to establish such a culture in primary schools. To address this gap, this study employs a mixed-methods approach to explore the role of research culture in primary teacher involvement in inquiry-based working. First, latent profile analysis was applied based on data collected from 5566 Chinese primary teachers to identify subgroups according to their involvement in inquiry-based working. Results revealed three distinct profiles: Profile 1, 'Classroom Reflector'; Profile 2, 'Inquiring Teachers'; and Profile 3, 'Active Inquirer and School Transformer.' Second, 24 teachers from three different profiles were selected for interviews. Results indicated that teachers from different profiles reported different relationships with their schools' research culture. Additionally, the study revealed the characteristics of research culture in primary schools and how it can administratively and autonomously motivate teachers to become involved in inquiry-based working. Based on these findings, this study suggests a series of detailed strategies for school leaders to establish a supportive research culture that fosters autonomous motivation of inquiry-based working among teachers.

STEPS TOWARD MEANINGFUL LEARNING:DE-ENCAPSULATING THE SCHOOL IN A CHANGE LABORATORY WITH ADOLESCENTS

Keywords: Collaborative Learning, Curricula, School Development, Secondary School Education

Presenting Author:Pauliina Rantavuori, Tampere University, Finland; **Co-Author:**Yrjö Engeström, University of Helsinki, Finland

Many students do not like school, are often absent or drop out, or consider schoolwork worthless and irrelevant to their life and future success. In an encapsulated classroom, the school text (the knowledge conveyed by teachers and textbooks and reproduced in tests and exams) tends to become the object of the activity instead of being an instrument for understanding the world. In this study, we examine how do adolescents construct meaningful learning experiences and steps toward de-encapsulation of the school in student-led projects supported by Change Laboratory (CL) interventions. A group of eighth-grade students in Finland worked on projects chosen and shaped by themselves, with the support of researchers and external experts, in two CL interventions over the school years 2020-21 and 2021-22. We analyzed the de-encapsulation actions of the two projects along three dimensions. Both groups found their own ways of conducting de-encapsulation. Allowing students to create and lead their own projects on issues important to themselves has the potential to open up the school. By producing their own projects, students become involved in teaching and learning in the school context. Student-initiated projects are a step toward meaningful learning experiences that students find relevant for their life and future.

Collegial cooperation from the perspective of lateral entrants to the teaching profession

Keywords: Continuing Professional Development in Teachers, Professional Development, Professional identity, School Development

Presenting Author:Robert Baar, Universität Bremen, Germany

The demands on teachers are becoming increasingly complex. Teacher training that enables persons to take these challenges into account seems more important than ever. Regardless of this, due to a glaring teacher shortage, more and more career changers are currently working at schools. Since they cannot fall back on knowledge and competences acquired in the traditional way, colleagues and cooperation with them appear to be of particular importance. The study on which this contribution is based reconstructs the value that career changers attach to collegial cooperation against the backdrop of their specific situation. It aims to find out about implications for action at the level of personal, professional and school development. Therefore, problem-centred individual interviews (cf. Witzel 1982) were conducted with 16 career changers who work at primary as secondary schools in XXX. The interviews were analysed using Grounded Theory (cf. Glaser/Strauss 1967/1998). Two basic orientations could be reconstructed. Only one of them seems suitable for shaping school life in a demanding, child-oriented way. The other orientation, which can be traced back to rigid hierarchies and a lack of appreciation within the college, leads to a practice that hardly meets the requirements of teaching in the 21st century.

Session J 2

24 November 2023 10:10 - 11:40

Minor Hall

Present & Discuss

Higher education

Inclusivity In Higher Education

Keywords: Diversity, Educational Effectiveness and Quality of Education, Equality / Education for All, Higher Education, Inclusivity, Professionalisation of Educators

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

Chairperson: Arjen Nawijn, Aeres University of Applied Sciences, Netherlands

Unlocking the desires of teachers and students in higher education: what they truly crave

Keywords: Educational Effectiveness and Quality of Education, Equality / Education for All, Higher Education, Inclusivity

Presenting Author:Liesbet Saenen, Universiteit Hasselt, Belgium; **Co-Author:**Katrien Hermans, University of Hasselt, Belgium; **Co-Author:**Elke Emmers, Universiteit Hasselt, Belgium

Flemish universities aspire to encourage an inclusive culture in the context of education democratization and increased educational options. Their policy plans reflect this commitment. In this exploratory, qualitative study, the aim was to find out to what extent practice is affected by these policy plans and therefore asked students and teachers to design the ideal, widely accessible online and offline learning environment for their university. Semi-structured focus groups with teachers and students from seven different faculties revealed valuable insights into their wishes and values. This study reports on what characterizes this inclusive online and offline learning environment from their perspectives. The results will be presented using examples and quotes from the respondents and will be related to the current international literature on inclusive higher education.

Hidden Curriculum in Higher Education

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

Presenting Author:Reinhilde Pulinx, University College Leuven -Limburg, Belgium; **Co-Author:**Karine Hindrix, UC Leuven-Limburg, Belgium

Higher education strives for an open and inclusive institutional culture with connection and collaboration as its stakes. This institutional culture cannot always be captured explicitly: the relationships between students and faculty, the way we treat each other, the implicit rules, the rituals, the way the curriculum is realized, the campus environment, etc., all contribute to the institutional culture but are not experienced in the same way by all students and faculty. In this study, we analyze these elements and processes using the concept of the "hidden curriculum" (Semper & Blasco, 2018), by this we mean the lessons "learned but not

overtly intended" (Martin, 1983) to be taught in school. This study includes a systematic literature review over the period 2013-2023 and mainly based on studies situated within European and American higher education systems. The main research question of this study is the following: what are the manifestations, dynamics, and impact of the hidden curriculum in higher education? The study is currently being conducted. At the conference we will present the main findings of the systematic literature review and link these findings to policy recommendations for Flemish higher education institutions.

From Awareness to Action: Improving Inclusive Teaching Strategies in Higher Education

Keywords: Diversity, Higher Education, Inclusivity, Professionalisation of Educators

Presenting Author:Elke Emmers, Universiteit Hasselt, Belgium; **Co-Author:**Liesbet Saenen, Universiteit Hasselt, Belgium; **Co-Author:**Katrien Hermans, University of Hasselt, Belgium; **Co-Author:**Reinhilde Pulinx, University College Leuven -Limburg, Belgium

Inclusive higher education (HE) is essential to providing equal opportunities for all students, regardless of their background or abilities. However, many teachers in HE feel inadequately prepared to teach diverse students. Therefore, teacher professionalization is critical for inclusive and accessible learning environments. An intervention study was conducted with 25 teachers to evaluate whether a professional development program is successful in improving attitudes, enhancing feelings of competence (self-efficacy), and employing more inclusive teaching practices in HE. The results showed that the program had a significant positive effect on teachers' attitudes, self-efficacy, and use of inclusive teaching strategies in HE. The program encouraged teachers to apply more inclusive teaching strategies in their classes. The study highlights the significance of inclusive and accessible learning environments in HE and the need for, as well as the potential of teacher professionalization to achieve this. The findings suggest that a professionalization program based on the principles of UDL and DI can effectively improve teachers' attitudes, self-efficacy, and use of inclusive teaching strategies in HE. To promote inclusiveness and accessibility in HE, it is crucial to support teachers in understanding students' diverse needs, providing them with the necessary resources, and creating a welcoming and supportive environment.

Session J 3

24 November 2023 10:10 - 11:40

Meeting Room 6

Present & Discuss

Lifelong learning, Workplace learning

Continuing Professional Development In Teachers

Keywords: Continuing Professional Development in Teachers, Educational Policy, Knowledge Building and Development, Learning / Teacher Management System, Lifelong Learning, Professional Development, Professional identity, Professionalisation of Educators

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

Chairperson: Ingrid Paalman, Netherlands

Teacher Trainers' Lifelong Learning Competencies: Analysis of Each Competence

Keywords: Continuing Professional Development in Teachers, Learning / Teacher Management System, Lifelong Learning, Professional Development

Presenting Author:Win Phyu Thwe, University of Szeged, Doctoral School of Education, Hungary; **Co-Author:**Anikó Kálmán, University of Szeged, Doctoral School of Education, Hungary

The purpose of current study is to analyse each competence of lifelong learning of teacher trainers based on the European Framework. Quantitative research method was adopted in this study. Independent-samples t-test, one-way analysis of variance and Dunnett's test were used to detect any significant differences in each level of lifelong learning competencies according to their background factors. Our findings show that teacher trainers have the highest degree of competency in learning how to learn but the lowest level in math and science. It also indicates that no competence in lifelong learning can differ based on background characteristics such as gender and education level. Multilingual competence, digital competence, learning to learn competence, citizenship competence, entrepreneurship competence, and cultural awareness competence can be different only by region of the education degree colleges, but literacy, mathematics, and science competence cannot differ. Literacy competence, digital competence and citizenship competence can also differ by the age while teaching service can influence only on the digital competence. It is significant to highlight that there may be additional factors such as socio-economic level of region involved. Regardless of gender and education level, individual differences in experience, exposure, and training can have a big impact on performance.

Design a self-training educative curriculum material about dialogical teaching

Keywords: Continuing Professional Development in Teachers, Knowledge Building and Development, Lifelong Learning, Professional Development

Presenting Author:MARIBEL CALDERON, Universidad Católica Silva Henríquez, Chile; **Co-Author:**Marisol Gómez, Universidad Alberto Hurtado, Chile

A professional development program to promote dialogic teaching for teachers was implemented in 4 schools (30 teachers). The design of the training program was based on the principles of reflection and enaction (Clarke and Hollingsworth, 2002) which implies a review of one's own work, and the implementation of specific actions in practice, but under conditions of protected space (Bourgeois, 2009). The methodology included: discussion of beliefs about dialogue and learning through a collaborative framework game, presentation of dialogic teaching principles (Alexander, 2020), review of classroom practices with real records, collaborative class designs based on support materials, and feedback on real practices. As results of this process a dialogic teaching material was redesigned for teacher professional development. This material can be self-managed by educational communities in their formative processes and in their joint planning and curriculum design practices. This material was presented to expert judges and practicing teachers who helped to make corrections.

Value Creation and Multilevel Boundary Crossing in crossorganizational PLCs

Keywords: Continuing Professional Development in Teachers, Lifelong Learning, Professional Development, Professionalisation of Educators

Presenting Author:Dorieke Swinkels-Veldt, Fontys University of Applied Sciences, Netherlands

The complex process of learning in Professional Learning Communities can be analyzed with several theories and frameworks. To fully understand learning in PLCs, theories need to be integrated. The research question of this thesis is: How do the mechanisms and processes of multilevel boundary crossing relate to the cycles of value-creation in professional learning communities, consisting of professionals from diverse educational backgrounds? Knowledge about those relations will offer leads to optimizing PLCs. For this qualitative case study, two PLCs each consisting of participants from two educational organizations were followed three years, from start to end. Semi-structured interviews were conducted yearly with all participants about the Value-Creation experienced by participants, and the learning mechanisms of Multilevel Boundary Crossing. Thus, insights were gained into the relations between these two theories. Indications have been found for consistent combinations of values and mechanisms such as strategic value and identification. Sequel tendencies of both values and mechanisms are also reported, starting with strategic, enabling, and immediate value, and with identification and coordination. In particular, the way strategic and enabling value were experienced seemed to influence the course of PLCs. Nevertheless, as newer parts of The Value-Creation Framework, strategic, enabling, and orienting value need further research.

Professional development as a strategy for teacher retention

Keywords: Continuing Professional Development in Teachers, Educational Policy, Lifelong Learning, Professional identity

Presenting Author:André Koffeman, Amsterdam University of Applied Sciences (AUAS), Netherlands

Professional development as a strategy for teacher retention In the Netherlands, increasing teacher shortages present schools with huge challenges. These challenges are not only addressed by seeking to attract more new teachers, but also by trying to avoid that teachers leave the profession prematurely. To this end, in Amsterdam, the project *Kleurrijk Beroep* ("Colourful Profession") was initiated. In this collaboration between the Municipality, local school councils and teacher training institutes, various courses were developed, specifically aimed at teacher retention. The premise of the project is that if teachers experience the opportunity to develop their profession, it leads to more job satisfaction, and as a result to retention.

This research project seeks to investigate the feasibility of that premise. To this end, teachers (n=51) who participated in these courses were surveyed in a

retrospective pretest/posttest, and they answered a number of open questions. To investigate the long-term effect of the courses, a focus group was organized a year after the project. The evidence suggests that if certain conditions are met, there is indeed a correlation between professional development and job satisfaction. These findings can be used to further inform strategies to develop teacher professional learning that leads to retention.

Session J 4

24 November 2023 10:10 - 11:40

Concourse

Roundtable

Higher education, Workplace learning

Strategies To Improve Teaching And Learning Environments

Keywords: Collaborative Learning, Culture and Education, Higher Education, Instructional Design and Instructional Strategies, Labour Market & Formal Learning, Problem Solving, Qualitative and Quantitative Approaches to Learning and Instruction, Training and Development, Work Environments

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

Chairperson: Robert Reuter, University of Luxembourg, Luxembourg

Bridging the gap between academia and practice in instructional design – a case study

Keywords: Instructional Design and Instructional Strategies, Qualitative and Quantitative Approaches to Learning and Instruction, Training and Development, Work Environments

Presenting Author: Lisa Marie Wintersberg, Technical University of Munich, Germany

Studies have shown that training developers often need guidance on implementing instructional design (ID) procedures, especially if they do not receive formal education. This research aims to bridge the gap between academic theory and practical application in technical for-profit organizations. We will conduct a case study using a mixed-method approach to explore how training and instruction are developed in these corporations and how practitioners perceive the usefulness of theoretical guidance in their workplace. Our data collection methods will include a meta-analysis of ID literature and document analysis of project plans, a quantitative survey, and qualitative structured interviews in a for-profit company. The results will inform how theoretical guidelines for training development can be adapted and improved to better guide practitioners in their work.

Exploration of Role Assignment in Collaborative Problem Solving

Keywords: Collaborative Learning, Higher Education, Instructional Design and Instructional Strategies, Problem Solving

Presenting Author: Burcu Şener, Boğaziçi University, Türkiye

In this study, the impact of role assignment in Collaborative Problem Solving (CPS) will be explored. The purpose of the study is to contribute to theory and practice by providing empirical evidence about the nature of effective CPS environments. The research questions of this study are: 1. How does CPS work in a block-based programming learning environment? 2. Does role assignment facilitate CPS? In the 10-week-long first iteration of this design-based research project, pre-service teachers, taking a block-based programming course, will be placed in groups, either with their assigned roles (Implementer, Shaper etc.) and without any assigned roles. They will work on short programming projects for two hours every week. Field data will be collected via sound and screen recording, and observation notes, and will be analyzed using inductive and deductive analysis, using a coding-scheme based on the PISA's CPS rubric. Groups' achievement scores for weekly programming tasks will be calculated and compared to see whether role-assignment yields to more effective CPS.

A way to collaborative learning in Humanities: A student journal

Keywords: Collaborative Learning, Culture and Education, Higher Education, Labour Market & Formal Learning

Presenting Author: Paz Gonzalez, Leiden University, Netherlands; **Presenting Author:** Annebeth Simonsz, Leiden University, Netherlands; **Presenting Author:** Sanne Arens, Leiden University, Netherlands

Central to our project is the question how to bridge two educational gaps that have been observed within the Humanities: the lack of collaborative learning and the lack of publishing opportunities for students. First, we investigate the success factors of a new online publishing platform to support students to collaborate, learn from and with fellow students and to work on their academic publishing skills as well as professional skills by becoming authors and experiencing co-authoring with fellow students, as well as joining an editorial board and experiencing project-management and professional teamwork. The project aims to enhance students' academic attitude and social skills as well.

Secondly, we set up a pilot study by implementing the environment for collaborative learning during several courses at our Faculty of Humanities, in which we examine the way in which course materials could support the use of an online academic student journal and lead to maximal student participation, building teamwork competencies and integrating multimodal learning interactions. We evaluate qualitatively as well as quantitatively, at all phases of our project, the functioning of the online platform, the course design and the materials used.

Session J 5

24 November 2023 10:10 - 11:40

Conference Room

EAPRIL Cloud Spotlight Session

Primary education

Leading schools as a learning organisation

Keywords: Continuing Professional Development in Teachers, Leadership Development, Organisational Learning, Secondary School Education

Interest group: CLOUD 12 - Leadership in Education

In order to cope with the abundant amount of complex and wicked problems and to stimulate evidence-informed school development and teachers' professional learning, it is necessary for school leaders to lead schools as learning organisations. In the spotlight session of cloud 12 leadership in education, we will discuss several research results from the point of view of a model we constructed for the development of the school as a learning organisation. Underlying assumption is that the dimensions of a learning organisation are interrelated and reinforce each other. Three researchers will present their research about leading schools as a learning organisation from different perspectives, followed by a reflection of the discussants and a dialogue with the participants of our cloud spotlight session.

Leading schools as a learning organisation

Presenting Author: Marlon van de Put, Fontys Hogeschool Kind & Educatie, Netherlands; **Presenting Author:** Anje Ros, Fontys University of Applied Sciences, Netherlands; **Presenting Author:** Judith Amels, Marnix Academie, Penta Nova, Netherlands; **Presenting Author:** Loes Wessum, Windesheim Zwlolle, Netherlands; **Co-Author:** annemarie Neeleman, CVO, Netherlands; **Co-Author:** Henderijn Heldens, Fontys University of Applied Science, Netherlands; **Co-Author:** Patrick Schaik, HZ University of Applied Sciences, Netherlands

In order to cope with the abundant amount of complex and wicked problems and to stimulate evidence-informed school development and teachers' professional learning, it is necessary for school leaders to lead schools as learning organisations. In the spotlight session of cloud 12 leadership in education, we will discuss several research results from the point of view of a model we constructed for the development of the school as a learning organisation. Underlying assumption is that the dimensions of a learning organisation are interrelated and reinforce each other. Three researchers will present their research about leading schools as a learning organisation from different perspectives, followed by a reflection of the discussants and a dialogue with the participants of our cloud spotlight session.

Session J 6

24 November 2023 10:10 - 11:40

Meeting Room 3

Workshop

Lifelong learning

Evaluating and reinforcing lifelong learning in inter-organisational learning communities

Keywords: Assessment and evaluation, Collaborative Learning, Higher Education, Organisational Learning

Interest group: CLOUD 10 - Assessment & Evaluation

In this workshop participants gain insight into interdisciplinary collaboration and co-creation in inter-organizational learning environments. These environments are powerful for lifelong learning and continuous development at both the individual, the team, and the community level as actors with different backgrounds, disciplines and organisations share and create knowledge together. The workshop presents the results of a literature and multi-case study into factors that contribute to the quality of collaboration within these communities. Then an instrument will be zoomed in on, which has been developed to evaluate and improve the quality of collaboration drawing on a multi-stakeholder perspective. Participants are invited to work with the instrument so that they can experience whether it is applicable to their own practice/collaboration. Then we will discuss in which ways the instrument is suitable for strengthening the collaborations in their own practice.

Evaluating and reinforcing lifelong learning in inter-organisational learning communities

Presenting Author:Tjerk Riemers, Fontys University of Applied Sciences, Netherlands; **Presenting Author:**Nard van den Langenberg, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Derk Bransen, Fontys Sporthogeschool, Netherlands

In this workshop participants gain insight into interdisciplinary collaboration and co-creation in inter-organizational learning environments. These environments are powerful for lifelong learning and continuous development at both the individual, the team, and the community level as actors with different backgrounds, disciplines and organisations share and create knowledge together. The workshop presents the results of a literature and multi-case study into factors that contribute to the quality of collaboration within these communities. Then an instrument will be zoomed in on, which has been developed to evaluate and improve the quality of collaboration drawing on a multi-stakeholder perspective. Participants are invited to work with the instrument so that they can experience whether it is applicable to their own practice/collaboration. Then we will discuss in which ways the instrument is suitable for strengthening the collaborations in their own practice.

Session J 7

24 November 2023 10:10 - 11:40

Meeting Room 4

Workshop

Higher education

Do's and don'ts for professional development of boundary crossing teacher educators

Keywords: Higher Education, Professional Development, Professionalisation of Educators, Training and Development

Interest group:

In school-university partnerships, institute-based and school-based teachers have a crucial role in connecting the learning contexts of the institute and practice for integrating theory and practice. These teacher educators are often referred to as boundary crossers, which is a new role that requires professionalization. Unfortunately, limited guidelines for professionalization of boundary crossing teacher educators can be found in literature. In a research project focusing on professionalization of *institute-based* teacher educators do's and don'ts for this were explored. Three different professionalization trajectories were investigated; after open observations, more focused observations using focal points distilled from the open observations were executed. Besides, several reflection sessions with the facilitators of the professionalization trajectories and coordinators of the partnership were analyzed. In the workshop the results will be presented briefly, after which in a dialogue implications for boundary crossing teacher educators will be discussed.

Do's and don'ts for professional development of boundary crossing teacher educators

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

In school-university partnerships, institute-based and school-based teachers have a crucial role in connecting the learning contexts of the institute and practice for integrating theory and practice. These teacher educators are often referred to as boundary crossers, which is a new role that requires professionalization. Unfortunately, limited guidelines for professionalization of boundary crossing teacher educators can be found in literature. In a research project focusing on professionalization of *institute-based* teacher educators do's and don'ts for this were explored. Three different professionalization trajectories were investigated; after open observations, more focused observations using focal points distilled from the open observations were executed. Besides, several reflection sessions with the facilitators of the professionalization trajectories and coordinators of the partnership were analyzed. In the workshop the results will be presented briefly, after which in a dialogue implications for boundary crossing teacher educators will be discussed.

Session J 8

24 November 2023 10:10 - 11:40

Meeting Room 5

Workshop

Higher education

Students' perspectives on flexible higher education: What do they want and need?

Keywords: Curricula, Educational Policy, Higher Education, Practice-based Research (methodology)

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

Currently, various higher education (HE) institutes develop flexible curricula for various reasons, including promoting accessibility of HE, the societal need for more self-regulated professionals who engage in life-long learning, and the desire to increase motivation of students. Increasing flexibility in curricula allows students to choose for example what they learn, when they learn, how they learn, where they learn, and/or with whom. However, HE institutes raise the question of what preferences and needs different stakeholders have with regard to flexibility, so that suitable choices can be made in the design of policies, curricula, and student support programs. In this workshop, we focus on student preferences and share recent insights from research on HE students' preferences regarding flexible education. Moreover, we use participants' expertise to identify new (research) questions to further explore what students' needs imply for several domains, namely curriculum-design, student support that is provided by educators/staff, policy, management, and the professional field. Firstly, a conceptual framework on flexible education and student's preferences will be presented. Secondly, participants reflect in groups on student personas. Then, discussion groups have a Delphi-based discussion to collect new ideas for research. Finally, participants share the outcomes on a 'willing wall' and a 'wailing wall'.

Students' perspectives on flexible higher education: What do they want and need?

Presenting Author:Herma Jonker, Windesheim University of Applied Sciences, Netherlands; **Presenting Author:**Tjark Huizinga, Saxion University of Applied Sciences, Netherlands; **Presenting Author:**Mechteld van Kuijk, Hanzehogeschool Groningen, University of Applied Sciences, Netherlands; **Co-Author:**Suzan van Brussel, Avans University of Applied Sciences, Netherlands; **Co-Author:**Milou van Harsel, Avans University of Applied Sciences, Netherlands; **Co-Author:**Chantal Veldhuis, Saxion University of Applied Sciences, Netherlands; **Co-Author:**Marjon Baas, Saxion University of Applied Sciences, Netherlands; **Co-**

Author:Marin Rutgers, Hanze University Groningen. University of Applied Sciences, Netherlands

Currently, various higher education (HE) institutes develop flexible curricula for various reasons, including promoting accessibility of HE, the societal need for more self-regulated professionals who engage in life-long learning, and the desire to increase motivation of students. Increasing flexibility in curricula allows students to choose for example what they learn, when they learn, how they learn, where they learn, and/or with whom. However, HE institutes raise the question of what preferences and needs different stakeholders have with regard to flexibility, so that suitable choices can be made in the design of policies, curricula, and student support programs. In this workshop, we focus on student preferences and share recent insights from research on HE students' preferences regarding flexible education. Moreover, we use participants' expertise to identify new (research) questions to further explore what students' needs imply for several domains, namely curriculum-design, student support that is provided by educators/staff, policy, management, and the professional field. Firstly, a conceptual framework on flexible education and student's preferences will be presented. Secondly, participants reflect in groups on student personas. Then, discussion groups have a Delphi-based discussion to collect new ideas for research. Finally, participants share the outcomes on a 'willing wall' and a 'wailing wall'.

Session J 9

24 November 2023 10:10 - 11:40

Meeting Room 7

Present & Discuss

Higher education, Secondary education, Vocational education

Assessment & Evaluation in Different Contexts

Keywords: 21st Century Learning, Assessment and evaluation, Curricula, Higher Education, Instructional Design and Instructional Strategies, Labour Market & Formal Learning, Professionalisation of Educators, Secondary School Education, Vocational Education, Workplace Learning

Interest group: CLOUD 10 - Assessment & Evaluation

Chairperson: Olga Rotar, Higher School of Economics, Russian Federation

Item and Test Endorsement of the Employer-Employee-Supported Critical Thinking Disposition Inventory

Keywords: 21st Century Learning, Assessment and evaluation, Higher Education, Labour Market & Formal Learning

Presenting Author:Yong Liu, Doctoral School of Education, University of Szeged, Hungary; **Co-Author:**Attila Pásztor, Institute of Education, University of Szeged, MTA-SZTE Digital Learning Technologies Research Group, Hungary

The investigation of the item and test endorsement is necessary for a newly developed assessment instrument to explore whether the items and the test work well among students. This study aims to check the item and test endorsement of the newly developed Employer-Employee-Supported Critical Thinking Disposition Inventory (2ES-CTDI) with the method of Rasch analysis based on the item response theory among 661 Chinese undergraduate students. The results demonstrated that (a) this inventory, generally, could accurately measure students' CTD; (b) this inventory is better for measuring the average CTD level ($-2 < \theta < 1$) of students; (c) The item difficulty matched the students' CTD level, while (d) the lower-average difficulty items can be suggested being replaced by average-level difficulty items; (e) the item discrimination and mean-square infit and outfit of all the items are all within the acceptable range. In conclusion, this inventory is ready to be used for assessing undergraduates' CTD. However, some improvement on items and validation in different backgrounds of undergraduate students can also be carried out in future studies.

Validation of the Hungarian Employer-Employee-Supported Critical Thinking Disposition Inventory

Keywords: 21st Century Learning, Assessment and evaluation, Higher Education, Workplace Learning

Presenting Author:Yong Liu, Doctoral School of Education, University of Szeged, Hungary; **Co-Author:**Attila Pásztor, Institute of Education, University of Szeged, MTA-SZTE Digital Learning Technologies Research Group, Hungary; **Co-Author:**Gyöngyvér Molnár, Institute of Education, University of Szeged, Hungary

The Employer-Employee-Supported Critical Thinking Disposition Inventory (2ES-CTDI) was freshly designed based on intelligence from the workforce instead of just proposals from literature, educators, and students. It is a connection between higher education and the job market eliminating the gap between theories and practice. However, 2ES-CTDI was currently only validated in its Chinese version without applications in other contexts. Besides, CTD has been emphasized in Hungarian national curriculums, but no such instrument for CTD assessment on Hungarian undergraduate students. Thus, this study aims to validate the Hungarian version of 2ES-CTDI (2ES-CTDI-HU) for future use in Hungarian universities and the workforce. 1090 university freshmen participated in this research voluntarily and anonymously. The reliability, structural validity, and item and test endorsement have been checked. The results showed that (a) 2ES-CTDI-HU has acceptable reliability and convergent and discriminant validity with a good overall model fit and the item and test endorsements; (b) Hungarian undergraduates were lack of CTD self-efficacy, but the inclination of instant judgment was high. Thus, 2ES-CTDI-HU can be used for future CTD assessments. However, the research on some low-factor loadings of items and validations in other contexts still needs to be explored in the future.

Student perceptions of different learning trajectories in Dutch VET

Keywords: 21st Century Learning, Assessment and evaluation, Curricula, Vocational Education

Presenting Author:Harm Biemans, Wageningen University, Netherlands; **Co-Author:**Hans Mariën, IVA Education, Netherlands

The aim of this study was to examine and compare student perceptions of three different learning trajectories to higher professional bachelor (HBO) programmes in the Netherlands: the Green Lyceum (GL), the regular vocational education and training (VET) route (VMBO-MBO), and the general secondary education (HAVO) route. In total, 123 students (25 former GL students; 33 former regular MBO students; 65 former HAVO students) in the first two years of their HBO programme completed an online questionnaire with the following scales: satisfaction with previous educational programme; preparation for study skills; preparation for theoretical subjects; preparation for vocation-oriented aspects; support for choosing a specific HBO programme; and satisfaction with transition from their previous educational programme to their HBO programme. In general, students from the three groups were equally satisfied with their previous educational programme, but, looking at specific aspects of their previous educational programmes, differences between the groups were found. Results with respect to the relations between these perceptions of the different learning trajectories and students' transition to HBO and their study performance in the first HBO study years will be reported at the EAPRIL 2023 and implications for the design and implementation of these learning pathways will be discussed.

Design principles and tactics teachers use to design formative assessment plans

Keywords: Assessment and evaluation, Instructional Design and Instructional Strategies, Professionalisation of Educators, Secondary School Education

Presenting Author:Janneke Van Der Steen, HAN University of Applied Sciences, Netherlands; **Co-Author:**Desirée Joosten-ten Brinke, Maastricht University, Netherlands; **Co-Author:**TAMARA van Schilt-Mol, Hogeschool van Arnhem en Nijmegen, Netherlands; **Co-Author:**Cees van der Vleuten, Maastricht University, Netherlands

Implementing formative assessment is not an easy task for teachers. Teachers state they feel capable of carrying out different formative assessment activities however, they do not know how to reach enough consistency in combinations of these activities to let them jointly support learning. While there are a lot of tools for developing formative assessment activities in classrooms there are little guidelines to help teachers tie these different activities together in a coherent plan. Therefore, this study aimed to answer the question: what are design principles and design tactics for formative assessment plans? To answer this question this study started off with formulating design principles based on expert interviews followed by validating these principles through group interviews with teachers from four schools for secondary education. The design principles were subsequently used by 31 teachers in the same four schools to find out which tactics teachers used as an addition to, or extension of, the principles to design formative assessment plans that suit their practice. The formative assessment plans of these teachers were analyzed, and 6 teachers were questioned about their design tactics in individual interviews. Results are eight design principles and the stories of the teachers who used them.

Session J 10

24 November 2023 10:10 - 11:40

Meeting Room 1

Workshop

Primary education

Bridging the Research Practice-Gap with Dashboard Results

Keywords: Organisation of Educational Research, Primary School Education, Professional Development, Professionalisation of Educators

Interest group: CLOUD 07 - Research impact on school development

This workshop focuses on exploring the practical usability of using dashboards to present the results of practice-based research. The aim is to increase the impact of research results by focusing on the moment when practice translates these results into plans for professionalization. Participants will use a dashboard to view results from an online questionnaire on education and ICT completed by teachers at educational institutions. The questionnaire identifies four competence domains for teachers that are important for teaching with ICT. The dashboard provides tailored feedback to institutions to help them refine their vision, and ambitions, and identify their developmental needs. During the workshop, participants will have an online meeting with a policymaker from an educational institution to discuss the institution's ambitions regarding education and ICT in relation to the results from the questionnaire. By examining and discussing the dashboard results, participants will share ideas for appropriate professionalization actions within that school. By participating in this workshop, participants will gain insight into the research model behind the questionnaire and learn how to use dashboard results to develop customized professionalization plans. The workshop aims to inspire participants to find innovative ways to bridge the gap between research and practice through tailor-made dashboards.

Bridging the Research Practice-Gap with Dashboard Results

Presenting Author: Carolien Van Rens, HAN University of Applied Sciences, Netherlands; **Presenting Author:** Marloes Timmermans, HAN University of Applied Sciences, Netherlands; **Co-Author:** Bas Kurver, HAN University of Applied Sciences, Netherlands; **Co-Author:** Bas Elsendoorn, Hogeschool arnhem en nijmegen, Netherlands; **Co-Author:** Frank Willems, HAN University of Applied Sciences, Netherlands

This workshop focuses on exploring the practical usability of using dashboards to present the results of practice-based research. The aim is to increase the impact of research results by focusing on the moment when practice translates these results into plans for professionalization. Participants will use a dashboard to view results from an online questionnaire on education and ICT completed by teachers at educational institutions. The questionnaire identifies four competence domains for teachers that are important for teaching with ICT. The dashboard provides tailored feedback to institutions to help them refine their vision, and ambitions, and identify their developmental needs. During the workshop, participants will have an online meeting with a policymaker from an educational institution to discuss the institution's ambitions regarding education and ICT in relation to the results from the questionnaire. By examining and discussing the dashboard results, participants will share ideas for appropriate professionalization actions within that school. By participating in this workshop, participants will gain insight into the research model behind the questionnaire and learn how to use dashboard results to develop customized professionalization plans. The workshop aims to inspire participants to find innovative ways to bridge the gap between research and practice through tailor-made dashboards.

Award Ceremony + Keynote Speech 1

24 November 2023 12:00 - 13:15

Assembly Hall

Keynote

Conversations on difference, diversity, and discrimination

Keywords: Culture and Education, Diversity, Equality / Education for All, Inclusivity

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

Chairperson: H.J.M. Stokhof, HAN University of Applied Sciences, Netherlands

In this lecture, we reflect on the need for a renewed and sustained conversation about difference, diversity, and discrimination in education and society at large. In recent years, our society has been challenged to transform. We were faced with a global pandemic and, almost at the same time, with anti-racist, anti-inequality, emancipation, and decolonialization movements. To understand social reality, for us and in interaction with others, we try to name that reality. We construct concepts, we define categories for objects, people, or experiences, and we assign labels. These are linguistic processes; through language, we want to try to understand reality while at the same time shaping it. Language, and consequently the concepts, categories, and labels we use, are not static but extremely dynamic. Language is constantly evolving, among other things, based on historical, social, or political developments. It is not just the distance caused by the COVID-19 pandemic that has made dialogue about history, inequality, racism, and decolonization difficult and complex. A new language and vocabulary emerged to address these topics, containing words such as "white privilege," "structural racism," "decolonialization," "woke, and "representation." In this context, avoiding increasing polarization and re-engaging in dialogue and conversation is needed to move forward towards a more equitable and inclusive society. It is through exchange and dialogue that we can break down the barriers that divide us and build new bridges of understanding and empathy. Additionally, we will translate these more conceptual frameworks into everyday educational practices. This will involve creating "third spaces" where authentic encounters are possible. These spaces are essential for fostering open and honest conversations about difference, diversity, and discrimination and for challenging preconceived notions and biases. By leaving the zone of comfort and engaging in dialogue, a more responsive and inclusive educational environment can be created that recognizes and respects the diversity of all individuals.

Conversations on difference, diversity, and discrimination

Presenting Author: Reinhilde Pulinx, University College Leuven -Limburg, Belgium

In this lecture, we reflect on the need for a renewed and sustained conversation about difference, diversity, and discrimination in education and society at large. In recent years, our society has been challenged to transform. We were faced with a global pandemic and, almost at the same time, with anti-racist, anti-inequality, emancipation, and decolonialization movements. To understand social reality, for us and in interaction with others, we try to name that reality. We construct concepts, we define categories for objects, people, or experiences, and we assign labels. These are linguistic processes; through language, we want to try to understand reality while at the same time shaping it. Language, and consequently the concepts, categories, and labels we use, are not static but extremely dynamic. Language is constantly evolving, among other things, based on historical, social, or political developments. It is not just the distance caused by the COVID-19 pandemic that has made dialogue about history, inequality, racism, and decolonization difficult and complex. A new language and vocabulary emerged to address these topics, containing words such as "white privilege," "structural racism," "decolonialization," "woke, and "representation." In this context, avoiding increasing polarization and re-engaging in dialogue and conversation is needed to move forward towards a more equitable and inclusive society. It is through exchange and dialogue that we can break down the barriers that divide us and build new bridges of understanding and empathy. Additionally, we will translate these more conceptual frameworks into everyday educational practices. This will involve creating "third spaces" where authentic encounters are possible. These spaces are essential for fostering open and honest conversations about difference, diversity, and discrimination and for challenging preconceived notions and biases. By leaving the zone of comfort and engaging in dialogue, a more responsive and inclusive educational environment can be created that recognizes and respects the diversity of all individuals.

Session K 1

24 November 2023 14:00 - 15:30

Minor Hall

Present & Discuss

Higher education, Vocational education

Mentoring in Vocational & Higher Education

Keywords: Emotions and Emotional Development, Higher Education, Initial Teacher Education (Pre-service), Leadership Development, Lifelong Learning, Mentoring, Tutoring, Vocational Education, Workplace Learning

Interest group: CLOUD 01 - Teacher education, CLOUD 05 - HRD & Workplace learning, CLOUD 12 - Leadership in Education

Chairperson: Tom De Schryver, Netherlands

Does mentoring enhance VET leaders' emotional intelligence and subjective well-being?

Keywords: Emotions and Emotional Development, Leadership Development, Mentoring, Vocational Education

Presenting Author:Katharina Prummer, Technical University of Munich, TUM School of Social Sciences and Technology, Germany; **Co-Author:**Salomé Human-Vogel, Faculty of Education, University of Pretoria, South Africa; **Co-Author:**Marien Graham, University of Pretoria, South Africa; **Co-Author:**Daniel Pittich, Technical University of Munich, Germany

Emotional Intelligence (EI) and its operationalization social-emotional competence (SEC) have been found to be crucial for academic and career success, and overall well-being. In educational settings, SEC has been linked to creating successful schools that enhance social, emotional, and academic growth. However, the development of SEC has often been neglected in the professional development of leaders. Thus, understanding the impact of professional development programs (PDP) on SEC is important for research and practice. This study aims to investigate the effect of a PDP with three mentoring types – individual, peer-group and expert-based mentoring - as a support structure on vocational education and training leaders' SEC. Using the Schutte EI scale, preliminary results indicate that PDP participants (n=48) have high levels of EI, and the peer-group mentoring supported them in developing their level of EI compared to other mentoring types. Comparing these levels with the data from the non-PDP group (n=90) will enable us to draw conclusions as to whether the program supported the participants in developing SEC. The final results will provide evidence to better understand whether and which support structures result in a rise in leaders' SEC. SEC can benefit individuals and organizations alike by creating structures based on well-being.

Guiding the development of professional agency of students in vocational education

Keywords: Lifelong Learning, Mentoring, Vocational Education, Workplace Learning

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

The design characteristics for a hybrid learning-working environment are becoming clearer. However, because of the complexity of such learning environments, it is difficult for the different types of mentors to find out how they can support the development of students. What is more, much less research has been done into this. In the research we present here, we show how experienced mentors guided the development of professional agency in such environments. In the study we looked at the characteristics of the guidance and what logically connects these characteristics. This has given us insight into the underlying mechanisms. Nine experienced mentors were interviewed to collect their lived experiences when guiding students. The characteristics that derived from the analyzes were presented to the mentors again in order to make a logical connection, given the purpose. The results show that the characteristics and mechanisms these mentors use form a guiding approach that is characterized by placing students in a challenging environment, offering as much room for development as possible, instilling confidence and closely monitoring how students develop, only intervening when necessary. At the session we want to discuss with participants whether different objectives, such as professional agency, should indeed also be guided differently.

Mentoring conversations to construct professional pre-service teachers' knowledge.

Keywords: Higher Education, Initial Teacher Education (Pre-service), Mentoring, Tutoring

Presenting Author:Eva Liesa, Ramon Llull University, Spain; **Presenting Author:**Natalia Contreras, Fundació Blanquerna, Spain; **Co-Author:**Montserrat Alguacil, Ramon Llull University, Spain; **Co-Author:**Maribel Cano, Universitat Ramon Llull, Spain

This study considers how student teachers, mentor teachers and university tutors position themselves during supervisory conversations to promote joint reflection on student teachers' practical teaching situations at the end of their Practicum. To this end, fourteen student teachers participated in a collaborative supervision conversation with their mentor teacher and university tutor. The conversations were videotaped and transcribed. Three types of supervisory conversations appeared: appraising, understanding, and solution-seeking conversations. Most conversations were appraising mentoring conversations (twelve of the fourteen). These results show the difficulty for the three participants to actively dialogue to understand and construct knowledge based on the evaluation of the practicum experience. The study proposes training guidelines for mentors and tutors to improve supervisory conversations as spaces for professional learning.

Keywords: supervisory conversations; positioning; initial teacher training; practicum; co-mentoring

Session K 2

24 November 2023 14:00 - 15:30

Meeting Room 7

Present & Discuss

Workplace learning

HRD & Workplace Learning

Keywords: 21st Century Learning, Collaborative Learning, Cooperative Learning, Creativity, Educational Effectiveness and Quality of Education, Knowledge Building and Development, Team Learning, Training and Development, Vocational Education, Workplace Learning

Interest group: CLOUD 05 - HRD & Workplace learning

Chairperson: Danaë Huijser, University of Humanistic Studies, Netherlands

Workplace Learning for Safe Production: Research-Industry Partnerships Bridging the Gap

Keywords: Educational Effectiveness and Quality of Education, Training and Development, Vocational Education, Workplace Learning

Presenting Author:Stephanie MacMahon, The University of Queensland, Australia

The mining industry is inherently dangerous. In a recent Australian Report, the quality and nature of training for workers and supervisors was found to be causally linked to accidents and fatalities at mine sites (Brady, 2019). Understanding and addressing the quality of learning and training for workers and supervisors has since been identified as an urgent priority (Brady, 2019). However, the industry is unsure how to address this priority. This paper will present findings from the first phase of a research-industry partnership between [University name], the Resources Training Council and mining industry stakeholders. Drawing on insights from the science of learning and 83 industry employee interviews, this project used Levin's (2013) Knowledge Mobilisation framework to identify the barriers and enablers to effective learning and training in the mining industry, and co-construct solutions that could bridge the gap between research and workplace practice. Preliminary findings suggest that valuable learning occurs on-the-job, and that this social, situated learning is dependent on interpersonal, metacognitive, observational, and instructional skills that are not (usually) targeted in training. In partnership with industry, guiding principles to inform quality learning and training have been developed, helping to bridge the gap between research and safe workplace practice.

“Failure Is Future Success”: Innovating as a Multi-Level Learning Cycle in a Technology Company

Keywords: Creativity, Knowledge Building and Development, Team Learning, Workplace Learning

Presenting Author:Soila Lemmetty, University of Eastern Finland, Finland

Knowledge in organizations is owned by different actors and embedded in their contexts and daily practices. To use this – often invisible – knowledge in innovation processes, it needs to be shared and complemented through learning practices at work. The aim of this study is to offer an empirically based

description of the innovation process at different levels of an organization as a continuous learning cycle. The study seeks answers to two questions: 1. *How does knowledge-based innovation form a continuous learning cycle in an organization?* 2. *What kind of learning practices are embedded in the innovation process?* The study used a qualitative content analysis to draw on interview data from 31 participants from technology organization. According to findings, innovation is a continuous learning process in which knowledge, which was not only a prerequisite for but also a result of innovation, was formed through social learning practices in everyday work. Such practices were seen as: participation, which took the form of discussion and observation; learning by doing, which referred to prototyping and experimentation; implementation, with particular emphasis on evaluation and improvement. Organizational actors seeking to promote innovations, can support these practices by valuing multiple knowledge, embracing critical debate and building trust.

Employees' Self-Determination in Collegial Learning Situations at Work

Keywords: 21st Century Learning, Collaborative Learning, Cooperative Learning, Workplace Learning

Presenting Author:Sara Keronen, University of Jyväskylä, Finland; **Co-Author:**Soila Lemmetty, University of Eastern Finland, Finland; **Co-Author:**Kaija Collin, University of Jyväskylä, Finland

Expert work, seen as continuous learning and development, requires autonomy and responsibility at the individual level and collegiality and sharing of expertise at the team level. Employees must have a have strong intrinsic motivation requiring the self-determination to fulfill three basic psychological needs: autonomy, competence, and relatedness. Likewise, studies on learning in expert work in the field of adult education have shown that collegiality and social interaction are vital resources for learning. Therefore, this study explores employees' self-determination in collegial learning situations in expert work in two contexts. We ask, how do employees in hospital and ICT organizations describe self-determination in collegial learning situations at work and how do the descriptions of self-determination differ between the two target organizations. A comparative qualitative research strategy and directed content analysis were utilized. The data consist of thematic interviews ($N = 56$) with employees from a Finnish central hospital and a Finnish information and communication technology organization. The findings show that self-determination is an essential part of collegial learning in modern expert work, thus providing the motivation behind learning. The paper concludes with a discussion of the commonalities and differences in self-determination in collegial learning situations in these two expert work contexts.

Session K 3

24 November 2023 14:00 - 15:30

Meeting Room 5

Workshop

Higher education

Comparative judgement as a method for sharing ownership in assessment practices

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

Interest group: CLOUD 10 - Assessment & Evaluation

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, collaboration 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 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 you will dive into the opportunities and benefits of comparative judgement for collaboration. For an optimal and smooth experience of comparative judgement, the online tool Comproved will be used. Interaction with the audience will be supported via 'particity'.

Comparative judgement as a method for sharing ownership in assessment practices

Presenting Author:Maarten Goossens, University of Antwerp, Belgium; **Co-Author:**Roos Van Gasse, University of Antwerp, Belgium; **Co-Author:**Marije Lesterhuis, UMC Utrecht, Netherlands

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, collaboration 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 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 you will dive into the opportunities and benefits of comparative judgement for collaboration. For an optimal and smooth experience of comparative judgement, the online tool Comproved will be used. Interaction with the audience will be supported via 'particity'.

Session K 4

24 November 2023 14:00 - 15:30

Concourse

Workshop

Higher education

Pedagosome: a substantive dialogue about (student) teachers' educational values and ideals

Keywords: Beliefs and Conceptions of Teaching, Distance Education, Game-based Learning / Gamification, Professionalisation of Educators

Interest group: CLOUD 01 - Teacher education

Teachers in contemporary society should not only be equipped in a technical sense, but should also have explicit values and ideas about what they consider to be good education (Biesta, 2009). Therefore, teachers should be stimulated to connect their teaching practices to articulated educational values and ideals. Moreover, teacher education should encourage student teachers to engage with other student teachers from other teacher education institutions, both national and international, about their educational values and ideals in order to broaden their worlds by meeting each other's perspectives. To achieve this goal we developed the educational values priority game. The very new online version of this game makes it possible to enter into a dialogue with fellow students from all over the world. In this workshop session we present the online educational values priority game www.PedagoGame.com. We want to introduce you to the game and its possibilities by playing the game together and discuss the (first) experiences. We hope to further improve the functioning of the online game and hope to entice other teacher educators to play the game back and forth with each other's students in international settings in the future.

Pedagosome: a substantive dialogue about (student) teachers' educational values and ideals

Presenting Author:Fedor Beer, HAN, Netherlands; **Presenting Author:**Carlos van Kan, Rotterdam University of Applied Sciences, Netherlands

Teachers in contemporary society should not only be equipped in a technical sense, but should also have explicit values and ideas about what they consider to be good education (Biesta, 2009). Therefore, teachers should be stimulated to connect their teaching practices to articulated educational values and ideals. Moreover, teacher education should encourage student teachers to engage with other student teachers from other teacher education institutions, both national

and international, about their educational values and ideals in order to broaden their worlds by meeting each other's perspectives. To achieve this goal we developed the educational values priority game. The very new online version of this game makes it possible to enter into a dialogue with fellow students from all over the world. In this workshop session we present the online educational values priority game www.PedagoGame.com. We want to introduce you to the game and its possibilities by playing the game together and discuss the (first) experiences. We hope to further improve the functioning of the online game and hope to entice other teacher educators to play the game back and forth with each other's students in international settings in the future.

Session K 5

24 November 2023 14:00 - 15:30
Meeting Room 1
Workshop
Primary education

Exploring Hypothetical Question-Related Trajectories to support Questioning Literacy

Keywords: Beliefs and Conceptions of Learning, In-service Teacher Training, Innovations in Education, Inquiry Learning

Interest group: CLOUD 02 - Educators' professional development

Student questioning is an important self-regulative strategy which has multiple benefits for teaching and learning. Teachers, however, need support to help students to develop their questioning literacy. In this workshop participants will be introduced to the Question Compass, a visual representation of the concept of Hypothetical Question-related Trajectories. The Question Compass aims to develop questioning literacy by exploring possible questions from the perspectives of various research methodologies and learning outcomes. The hypothesis was that by exploring Hypothetical Question-Related Trajectories (HQRT's), teachers would be better able to anticipate on potential student questioning and feel more competent to guide students to raise relevant, feasible questions which contribute to deeper understanding of the topic under study. To test the hypothesis, the Question Compass was tested in three cycles of design-based research by 30 primary school teachers, in diverse contexts ranging from Kindergarten to Grade 6. In this highly interactive workshop an hands-on experience with the Question Compass to immerse participants in the concept of HQRT will be alternated with the presentation of the outcomes of practice based studies and the discussion of the potential for various educational domains.

Exploring Hypothetical Question-Related Trajectories to support Questioning Literacy

Presenting Author:H.J.M. Stokhof, HAN University of Applied Sciences, Netherlands; **Co-Author:**Helma Oolbekkink- Marchand, HAN University of Applied Sciences, Netherlands; **Co-Author:**J.B. van der Linden, HAN University of Applied Sciences / Maastricht University, Netherlands; **Co-Author:**Ilse Wintermans, HAN University Nijmegen, Netherlands

Student questioning is an important self-regulative strategy which has multiple benefits for teaching and learning. Teachers, however, need support to help students to develop their questioning literacy. In this workshop participants will be introduced to the Question Compass, a visual representation of the concept of Hypothetical Question-related Trajectories. The Question Compass aims to develop questioning literacy by exploring possible questions from the perspectives of various research methodologies and learning outcomes. The hypothesis was that by exploring Hypothetical Question-Related Trajectories (HQRT's), teachers would be better able to anticipate on potential student questioning and feel more competent to guide students to raise relevant, feasible questions which contribute to deeper understanding of the topic under study. To test the hypothesis, the Question Compass was tested in three cycles of design-based research by 30 primary school teachers, in diverse contexts ranging from Kindergarten to Grade 6. In this highly interactive workshop an hands-on experience with the Question Compass to immerse participants in the concept of HQRT will be alternated with the presentation of the outcomes of practice based studies and the discussion of the potential for various educational domains.

Session K 6

24 November 2023 14:00 - 15:30
Meeting Room 3
Workshop
Lifelong learning

Agency of educational professionals: How to become a Superagent

Keywords: Game-based Learning / Gamification, Lifelong Learning, Professional Development, Professionalisation of Educators

Interest group: CLOUD 02 - Educators' professional development

Agency is defined as "the conscious and purposeful exercise of influence, making choices, taking advantage of opportunities or adopting a proactive attitude resulting in changes in the work situation and/or in one's own professional development. Agency is seen as an important part of the professionalism of teachers and teacher educators especially in relation to the continuous changes in education. The Dutch educational network 'Sprong Voorwaarts' aims to contribute to knowledge utilization related to future-oriented education. Within this network educational professionals collaborate to develop knowledge products for daily practice. In this workshop, one of these KLS which aimed to contribute to agency of educational professionals in the context of innovation is presented. In the KL eight participants contributed to a process of design thinking and network learning. During the first year of its existence, the knowledge lab developed a game for educational professionals which aims to encourage agentic actions and reflection. In the second year the game was tested in different settings and a final version was developed. The game that was developed received enthusiastic comments from the network partners. During this workshop participants will experience the game developed within this Knowledge Lab and work on their own agency.

Agency of educational professionals: How to become a Superagent

Presenting Author:Annemieke de Jong, HAN University Nijmegen, Netherlands; **Presenting Author:**Harry Rorije, Hogeschool Utrecht, Netherlands;

Presenting Author:Kyle Langenberg, HAN University Nijmegen, Netherlands; **Co-Author:**Helma Oolbekkink-Marchand, HAN University Nijmegen, Netherlands; **Co-Author:**Jacqueline Gerrits, Han university of applied sciences, Netherlands; **Co-Author:**Anne Nienhuis, Universiteit Utrecht / Hogeschool Utrecht, Netherlands; **Co-Author:**Elly Wildeman, Fontys University of Applied Sciences, Netherlands; **Co-Author:**Annemarie van Dooren-Sommers, OGVO Valuascollege, Netherlands

Agency is defined as "the conscious and purposeful exercise of influence, making choices, taking advantage of opportunities or adopting a proactive attitude resulting in changes in the work situation and/or in one's own professional development. Agency is seen as an important part of the professionalism of teachers and teacher educators especially in relation to the continuous changes in education. The Dutch educational network 'Sprong Voorwaarts' aims to contribute to knowledge utilization related to future-oriented education. Within this network educational professionals collaborate to develop knowledge products for daily practice. In this workshop, one of these KLS which aimed to contribute to agency of educational professionals in the context of innovation is presented. In the KL eight participants contributed to a process of design thinking and network learning. During the first year of its existence, the knowledge lab developed a game for educational professionals which aims to encourage agentic actions and reflection. In the second year the game was tested in different settings and a final version was developed. The game that was developed received enthusiastic comments from the network partners. During this workshop participants will experience the game developed within this Knowledge Lab and work on their own agency.

Session K 7

24 November 2023 14:00 - 15:30
Board Room
Workshop

Higher education

Circling around a research question: explicating values and motives

Keywords: Inclusivity, Knowledge Building and Development, Practice-based Research (methodology), Research Cooperation Frameworks

Interest group: CLOUD 11 - Practice-based Research Methodology

To contribute to solving wicked educational problems it is necessary in practice-based research to involve practice and stakeholders as equal partners from the start. In this workshop participants can learn how to involve relevant stakeholders in the development of research proposal using the 'circling around your question' methodology. This approach is developed by the research group Research Competence of Utrecht University of Applied Sciences. In the workshop we will provide an introduction to the approach and get to work with several of the working methods for example the multiple value tool and the cards methodology with which you jointly can explicate values and beliefs of all stakeholders according to their goals, motives and solutions within a wicked problem.

Circling around a research question: explicating values and motives

Presenting Author: Lisette Munneke, Utrecht University of Applied Sciences, Netherlands

To contribute to solving wicked educational problems it is necessary in practice-based research to involve practice and stakeholders as equal partners from the start. In this workshop participants can learn how to involve relevant stakeholders in the development of research proposal using the 'circling around your question' methodology. This approach is developed by the research group Research Competence of Utrecht University of Applied Sciences. In the workshop we will provide an introduction to the approach and get to work with several of the working methods for example the multiple value tool and the cards methodology with which you jointly can explicate values and beliefs of all stakeholders according to their goals, motives and solutions within a wicked problem.

Session K 8

24 November 2023 14:00 - 15:30

Meeting Room 4

Case study

Higher education, Lifelong learning

Gamification In Higher Education

Keywords: 21st Century Learning, Assessment and evaluation, Competence-based Education, Game-based Learning / Gamification, Motivation, Practice-based Research (methodology), Project-based Learning

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

Chairperson: Andrea Prince van Leeuwen, Inholland University of Applied Sciences, Netherlands

Creating New Learning: Learning from Practice

Keywords: Assessment and evaluation, Game-based Learning / Gamification, Motivation, Practice-based Research (methodology)

Presenting Author: Jolien van Uden, European Training Foundation, Italy; **Presenting Author:** Hedja Mhiri Sellami, Institut Supérieur de Gestion de Tunis, Tunisia; **Presenting Author:** Katarina Veljković, First grammar school, Serbia

Two innovative practices in teaching and learning will be presented. The case studies have been developed within the European Training Foundation's Creating New Learning initiative. Within this initiative we use an iterative research process that empowers participants to reflect on their practice and to further improve it. The research results in a case study description of the practice. During the session we will present the research methodology and two case studies developed using the approach. The first case study takes place at the University of Tunis in Tunisia. Here a role play is introduced as assessment method with the aim to make the learning more relevant and to encourage learners to put effort to really master the course content instead of only being able to reproduce it. The second practice takes place in general education in Serbia where a teacher created an escape room on digital literacy skills in Minecraft together with her students to support the development of digital literacy skills. For both cases steps have been identified to further enhance the practice based on the outcomes of the research.

How to strengthen the competence of resilience in retail management students?

Keywords: 21st Century Learning, Competence-based Education, Game-based Learning / Gamification, Project-based Learning

Presenting Author: Hermien Raedts, University College PXL, Belgium; **Co-Author:** Eva Mertens, Hogeschool PXL, Belgium

A preparatory study performed in 2022 in Flanders by our university-college among retail owners showed that the competencies that need to be enhanced within the retail sector are mainly soft skills. The competencies resilience, learning ability, commercial insight and flexibility are currently insufficiently present among retail employees, even though these are very crucial competencies that retailers need to successfully develop their shops (survey of 232 people active in retail, in Flanders, Belgium). In other words, these four competencies are very relevant: retailers state that they are very important in the sector and there is a shortage today. To strengthen these competencies we developed a resilience toolbox and constructed a course in which students will experience what it means to operate a shop and thereby, they will strengthen their soft skills. We also measured their soft skills before and after the pop-up to monitor their progress.