



SIG 10, 21 & 25 CONFERENCE

***BOOK OF
ABSTRACTS***

WALKING THE TALK:

**Co-constructing
the politics of
meaning, diversity
& learning**

Bari, 11-13 September 2024



SIG 10, 21 & 25 CONFERENCE
Bari, 11-13 September 2024

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WELCOME NOTE

In the current landscape of educational research, there is a growing awareness of and interest in discussing the positionality of all actors involved. Through their actions and words, students, teachers, researchers, tutors, etc., all express values and worldviews, collectively shaping the narratives on education across formal and informal learning contexts. At a broader level, this co-constructive process also involves actors such as policymakers, funding agencies, scientific associations, and EdTech companies. In that sense, the social interactions relevant to educational research are not only processes evolving during learning but also involve discourse and action communicating about learning - verbally and nonverbally, explicitly and implicitly across different places and situations.

Thus, not only do educationally relevant phenomena give rise to a polyphonic co-construction of meaning - such co-construction, in turn, also shapes how we perceive and act and thus transforms these phenomena. Our participation as educational researchers in this co-construction has deep implications for educational theory and practice. In this context, a particularly relevant - perhaps confronting - question for reflection is: who gets to participate in co-constructing the politics of meaning and learning? Who are 'we' and who are the 'others'? For even if we agree on valuing diversity, the meaning of 'diversity' itself is not fixed, seeing that various kinds of diversity can be at stake in educational research and practice. Depending on how the meaning of diversity is co-constructed, different actors can be included and excluded as agents (e.g., do we mean only human diversity or also more-than-human diversity?).

At this conference, we take the time and space

to engage with research as a reflexive praxis. Notably, we aim to expand our understanding of learning and social interaction, diversity in education, and educational theory to foster dialogue not only on what we do but also on how we do it and what that communicates. Such dialogue entails exploring how both our empirical findings and our ways of doing research shape and are shaped by educational discourse and practice. A variety of contributions were assembled to engage with ideas of co-constructing the politics of meaning, diversity and learning.

Welcome to Bari!

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KEYNOTE SPEAKERS

LEARNING AND DEVELOPMENT IN SOCIAL INTERACTION: FRUITFUL HISTORY AND FUTURE DIRECTIONS

Aleksandar Baucal, University of Belgrade

An enduring theoretical tension in studying human development is related to the question is it mostly an individual process relatively independent from the socio-cultural context or is it a socio-cultural and relational process. The tension is also related to the relationship between learning in education and children development – the individual constructivist perspective assumes that learning in education is enabled and constrained by structural developmental achievements and has no profound feedback impact on development, while the socio-cultural perspective assumes a formative role of learning and relationships in education in the child development. Consequently, studies of peer social interaction or collaborative problem solving among students provides a promising platform for a deeper understanding of dynamics between individual development and social interaction as well as between learning in education and development of new competences. In this presentation, I am going to delve into three issues. Firstly, I am going to present an individual view on a long history of studying learning and development in social interaction and discuss some key changes in terms of research focus and research methodology. Secondly, a systematic review of current knowledge in this field of inquiry is going to be presented and discussed. Finally, key open issues that are supposed to be in the focus of prospective research in this field are going to be discussed.

WALKING THE BORDERS! THE CULTURAL PSYCHOLOGY OF BORDERING PROCESS

Pina Marsico, University of Salerno

In a psychological and social senses, a border is a dynamic relationship between the parts in a system in terms of personal sign-construction (psychological) or social norm regulation (societal). Our thinking, like all living entities, is born to dress up borders, frontiers and limits. This is a kind of architectural vice of our psyche and our human lives. As there is no infinity without a horizon line, there are no biological organisms, starting from the level of the cell, that can survive without making border with its surrounding. Physical and mental life is then about borders. However, borders are not only about closing and delimiting. In analogy with the organic membranes, borders are living and permeable entities. They are made to delimit and negotiate at the same time. While the dividing nature of borders is a frequent fact of life in everyday situation, borders study from a cultural psychology perspective may also unveil interactions and connection as well as the psychological functions of the border-making and border-regulating phenomena. The main goals of my lecture is to discuss the foundation of the Cultural Psychology of Bordering process and their practical implications in the formal and informal learning contexts.

BEYOND FONT AND PIXEL: TOWARDS AN ECOLOGY OF KNOWLEDGE CO-CREATION

Alessio Surian, University of Padova

The introductory part of the talk goes back to the meeting that involved Ivan Illich and Paulo Freire fifty years ago in Geneva as an example of dialogue that still interrogates today's pedagogical choices and education research approaches. It attempts to connect a cultural-historical and dialogical educational perspective with a visit to the Cooperative de L'Enseignement Laïque established a century ago in Vence (Southern France) by Elise and Célestin Freinet. Célestin Freinet became the teacher at the primary school of Saint-Paul de Vence in 1928, teaching in an old building with a tiny playground. In the afternoon he would take the pupils on educational walks through the village or forest, resulting in the children writing a newspaper, printing it at school and sending it to neighbouring schools. In 1933 Elise and Célestin Freinet opened their own school in Vence. The school is still active and it offers a Mediterranean focus in the footsteps of sociologist Franco Cassano's (1996) work for approaching Albert Camus' "pensée de midi" (Southern Thinking) and as a grid to explore local forms of collective writing inspired by other Mediterranean sites. A short transmodernity (Dussel, 2012) exercise is then proposed with the purpose of re-contextualise and locate collective writing through Southern Americas' knowledge co-creation lenses/experiences (Brandao, 1983; Fals Borda, 1983; Menezes de Souza, 2002). Current pedagogical and research challenges and opportunities are discussed considering the previous knowledge co-creation mapping.





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***INVITED
SYMPOSIA***

SIG 10 INVITED SYMPOSIA

Co-constructing meaning about teaching and learning: How to make research findings matter?

Jelena Radišić, University of Oslo (Organiser);
Mayra Mascareño Lara, University of Groningen
(Discussant); Marina Videnović, University of
Belgrade (Chair)

Understanding different phenomena in education requires a sustained effort from research teams. Yet, communicating the findings of such efforts frequently loses its power by the time it reaches the intended recipients – teachers, principals, students or parents. Making research findings matter more for the community requires time, space and engagement, leading time and again to the expansion of initial understandings and new meaning-making. This symposium exemplifies three very different projects that embed the idea of research as a reflexive praxis. Each showcases how the planned exchange between researchers, practitioners, and students led to new understandings and, in return, is shaped by developed discourses. The stories told are situated in diverse educational settings, allowing us to explore different cultural practices, both unique and those that transcend across contexts.

The first presentation explores the potential benefits of implementing STEAM educational packages in the first cycle of primary education (project PROMoting STEAM in primary school: partnership for disseminating good practices). The project aims to showcase the effectiveness of collaborative efforts between teachers and researchers in generating evidence-based educational tools built for practical application

in schools. The second presentation depicts a PEER training program (PEERSolvers project) intended to develop and strengthen adolescent collaboration and problem-solving skills. The training conceptualisation, built on the premise of the PEER model, offers a fresh and comprehensive approach to collaborative problem-solving aimed at equipping researchers and teachers with evidence-based tools for enhancing students' collaborative problem-solving skills. The final presentation, stemming from the MATHMot project, focuses on the discourses with teachers on student motivation for learning math, coupled with teachers' views on successful and less successful motivating practices they use to support diverse students they encounter. Together with other research data gathered within MATHMot, teachers' narratives represent essential building blocks in creating an evidence-based teacher toolkit to foster motivation for learning math.

Promoting STEAM through collaboration between education experts and primary school teachers

Ivana Stepanović Ilić¹, Nadia Ferreira², José Castro Silva², Francisco Peixoto², Anna Ethelwyn Baccaglini-Frank³, Maria Cristina Oliveira da Costa⁴, Nijole Cibulskaitė⁵, Marina Videnović¹, Milana Dabić Boričić¹, Giulia Lisarelli³, Vera Monteiro² & Alessandro Ramploud³

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This paper explores the potential benefits of implementing STEAM educational packages in the first cycle of primary education, which were developed through a collaboration between university educational experts and primary school teachers. Despite growing interest in STEAM

education, challenges remain in meaningful integration of all disciplines, mainly due to the need for teachers competent to teach STEAM adapted to the youngest students. To address these challenges, the project aimed to develop STEAM educational packages for young primary students incorporating all disciplines, ensuring packages can be implemented internationally. By engaging teachers and schools from different countries as equal partners alongside researchers from different universities, the project sought to ensure the successful implementation and dissemination of STEAM practices. Through various phases, including curriculum mapping, the conceptualisation of pedagogical framework, STEAM educational package development and their evaluation, the project highlights the importance of engagement of both parties, researchers and teachers, in distinct but complementary roles. Researchers' role is significant in overcoming previously mentioned obstacles by supporting teachers in guiding students through various disciplines towards expected education goals, while teachers' realisation of the packages in the classroom and their feedback is vital for refining created educational materials. Ultimately, the project aims to showcase the effectiveness of collaborative efforts between teachers and researchers in creating evidence-based educational tools for practical application in schools.

PEER Training: Building successful collaborative problem-Solving Skills in Adolescents

Aleksandar Baucal¹, Ivana Stepanović Ilić¹, Marina Videnović¹, Smiljana Jošić², Milana Rajić¹, Ksenija Krstić¹, Ana Altaras Dimitrijević¹, Zorana Jolić Marjanović¹, Dragica Pavlovic Babić¹, Tijana Nikitović¹, Kristina Mojović Zdravković¹ & Jovan Ivanović¹

¹University of Belgrade, ²Institute for Educational Research, Belgrade

This paper presents a PEER training program aimed at building and strengthening collaboration and problem-solving skills among adolescents. The program is integral to the PEERSolvers project (<https://peersolvers.f.bg.ac.rs>) and follows the PEER model designed to enhance successful collaboration among adolescents. The training includes the four main segments of the PEER model. The first segment focuses on formulating and establishing rules for constructive dialogue and exchange (E) of ideas. The second involves recognising and respecting personality (P) and individual differences in teamwork. The third addresses skills of emotional intelligence (E), promoting the importance of proper recognition, understanding and regulation of emotions during collaboration. Finally, the fourth part of the training deals with team member's ability to use external resources (R), primarily digital data sources, to scaffold problem-solving. Each segment is a three-hour block, with an introductory and concluding session and includes a series of group exercises and interactive tasks. The conceptualisation of the training in accordance with the PEER model offers a novel and comprehensive approach to collaborative problem-solving aimed to equip both researchers and teachers with evidence-based tools for enhancing students' collaborative prob-

lem-solving skills. The training was carried out in six Belgrade high schools (3 grammar schools and three vocational schools), involving approximately 21 second-year students per school. Trainer experiences confirm that the training can be conducted successfully according to the planned scenario. Also, the trainees found the training relevant and felt confident enough to engage in it.

Co-constructing narratives of motivation: Creating evidence-based tools for the teachers

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This paper focuses on teachers' discourses about student motivation for learning math in primary school across six European countries (i.e., Estonia, Finland, Norway, Portugal, Serbia and Sweden), coupled with teachers' views on successful and less successful motivating practices they use to support diverse students in their classroom. Seventy-one interviews were conducted with the teachers participating in the MATHMot project. Building on the methodology of using vignettes to investigate mathematics teachers' beliefs and practices, within the frame of a semistructured interview, we explored teachers' views of their classroom concerning mathematics motivation and, jointly with them, interpreted selected findings repre-

sented through vignettes. Vignettes were used as prompts to showcase different student types found in the project results. Narratives were built around how students described in the vignettes could be supported, which experiences help teachers decide on particular moves, resources they count on or may be lacking in this process, and which strategies they see as especially enticing to foster motivation of particular student types compared to others. Building and exploring teachers' narratives across different sites allowed us to investigate particular practices that may be recognised as supporting or failing across various settings and capture individual nuances unique to a single education system. Such insights also contribute to understanding different motivation concepts within motivation theories, whose situated nature demands more research. Together with other research data from the MATHMot project, teachers' narratives represent essential building blocks in creating an evidence-based teacher support tool to foster motivation for learning math.

SIG 21 INVITED SYMPOSIA

Unveiling Stereotypes, Biases, and Attitudes: Understanding the Impact on Educational Equity

Özün Keskin, University of Augsburg (Organiser); Sabine Glock, Bergische Universität Wuppertal (Discussant); Özün Keskin, University of Augsburg & Anna Shevchuk, Bergische Universität Wuppertal (Chairs)

In today's diverse educational landscape, achieving equity remains a central imperative. This symposium delves into the intricate interplay of stereotypes, biases, and attitudes within educational contexts, aiming to unravel their profound implications for educational equity. The symposium is meticulously crafted to prioritize inclusivity, diversity, and collaboration. The symposium presents four contributions providing a comprehensive understanding of the factors shaping educational equity. The contributions are designed to foster open dialogue and exchange ideas among participants. By creating a supportive and inclusive environment, the symposium empowers participants to explore complex issues and develop actionable strategies for promoting equity and inclusion in their educational practices.

Contribution 1 sets the stage by examining the prevalence and impact of stereotypes held by pre-service teachers regarding students with migration background. Through a combination of innovative methodologies such as the Single Category Implicit Association Test and self-report questionnaires, the research elucidates how implicit and explicit stereotypes influence teacher perceptions and interactions. This presentation offers insights into the complexities of stereotypes and its implications for educational

practices.

Contribution 2 delves into the impact of teachers' implicit ethnic expectations and burnout on their evaluation of student performance. Through a comprehensive analysis, the study uncovers the detrimental effects of burnout and implicit biases on teachers' evaluations, particularly concerning ethnic minority students. The presentation provides valuable insights into the complexities of teacher evaluations and underscores the importance of addressing biases in educational settings.

Contribution 3 explores the biases in pre-service teachers' (PSTs) assessments of students' mathematical work based on names indicating Turkish, Vietnamese, or low/high socio-economic German backgrounds. The study found that PSTs were more likely to give higher assessments to student work associated with Vietnamese names and to justify their assessments based on conceptual understanding for students with immigrant backgrounds, compared to those with low socio-economic German backgrounds. This highlights the potential influence of implicit biases on educational assessments.

Contribution 4 investigates the attitudes of pre-service teachers towards students with Turkish origin, elucidating the complex interplay between implicit and explicit attitudes. Through a multi-method study, the research unveils the predictive factors influencing these attitudes, highlighting the importance of addressing biases in teacher professionalism. The presentation aims to deepen understanding of the factors shaping teacher attitudes and promote cultural competence in educational practice.

Collectively, these contributions offer a nuanced understanding of the challenges and opportunities in fostering educational equity. Each study provides valuable insights into different aspects of the complex issue, from the impact of stereotypes and biases on teacher evaluations to the transformative potential of digital technologies in language education.

Implicit and explicit stereotypes on judgments, feelings and behaviors of pre-service teachers

Anna Shevchuk
Bergische Universität Wupperta

Stereotypes about students with a migration background have been associated with low in agency and communion. The present study examines the impact of implicit stereotypes and explicit stereotypes about ethnic minority students on judgments of agency and communion, feelings and behavior of pre-service teachers. For this purpose, a combination of reaction-time method (Single Category Implicit Association Test) and a self-report questionnaire were used to assess implicit and explicit stereotypes, respectively. Pre-service teachers (N = 104) judged a hypothetical average student of a Turkish descent on two-facetted dimensions of agency (assertiveness, competence) and communion (warmth, morality) and anticipated their emotional responses (admiration, contempt, envy, pity) and behavioral tendencies (active-passive, facilitative-harmful) towards the student. Results revealed high implicit and explicit stereotypical perceptions among pre-service teachers, with higher explicit stereotypes predicting lower judgments on assertiveness, warmth and morality and higher implicit stereotypes leading to higher judgements of warmth. No stereotypes were related to emotions. Only implicit stereotypes predicted active facilitative behavior. This study adds the importance of examining behavioral tendencies besides assessment processes in order to understand the consequences of stereotypes in educational settings.

Implicit ethnic expectations and burn-out on teachers' evaluations of students' performance

Sara Costa
Roma Tre University

This study explores the impact of teachers' implicit ethnic expectations and burnout on their evaluation of student performance. Ethnic minority students frequently encounter disadvantages in education, which may be partly attributed to these factors related to teachers. A total of 55 Italian teachers participated in this study (20 preservice teachers). The Maslach Burnout Inventory was used to measure teacher burnout, and the Relational Responding Task was utilized to assess teacher implicit beliefs about students' achievement. A linear mixed-effects model was used to examine the relationship between teachers' burnout, implicit expectations, and their evaluation of students. Results showed that teachers' burnout was negatively associated with teachers' evaluations of Italian and ethnic minority students, regardless of their performance level. Additionally, results suggest that teachers' implicit expectations may negatively influence their evaluations of ethnic minority students, even when those are high achieving. These findings highlight the need to further investigate the role of teachers' stereotypical implicit expectations and burnout in their evaluation process. Future interventions should explore strategies to address these biases and promote more equitable evaluation practices.

Pre-service teacher assessments for students with different socio-economic or immigrant backgrounds

Christin Laschke

Leibniz-Institute for Science Education (IPN)

Following dual process theories, the tendency for automatic judgments increases in situations with few cognitive resources, which can occur when students' unexpected non-standard approaches need to be assessed by pre-service teachers (PSTs). In such situations assessment process might be subconsciously biased by relying on implicit theories instead of learning objectives such as conceptual understanding. Studies showed that German PSTs' assessments can be negatively biased when a student has an assumed low socio-economic or Turkish background. In contrast, no studies on biased assessments of Vietnamese students exist although they comprise a large immigrant group in Germany.

By using binominal logistic regression, we examined to what extent PSTs' assessments and their link to conceptual understanding differ by names indicating Turkish or Vietnamese background and low or high socioeconomic German background. For this purpose, 112 PSTs were asked to assess a non-standard solution combined with student names implying these different backgrounds and justify their assessment.

The Vietnamese background student more likely received better assessments than German high or low socio-economic background students and PSTs more likely linked their assessments to students' conceptual understanding when the student has an immigrant background instead of a German low socio-economic background. This can indicate that PSTs expect both immigrant groups to have more conceptual understanding than students with low socio-economic backgrounds. However, before further concluding on PSTs' assessments we need to recognize, that

our study builds on an ad-hoc sample from one university, which needs to be replicated.

Implicit and explicit attitudes of pre-service teachers towards pupils of Turkish origin

Alijagic Aldin & Andreas Gegenfurtner

University of Augsburg

Teacher attitudes can aggravate educational disadvantage by lowering expectations for certain student groups. Pupils with Turkish origins are more affected by it compared to German pupils who are more favored by the teachers. Therefore, this following study aims to investigate the attitudes of pre-service towards pupils with Turkish origins. The attitude theory, the intergroup contact theory and the self-categorization theory were used as the theoretical basis of this study. This study addresses two important questions: (A) To what extent correlate implicit and explicit attitudes with one another? (B) Are implicit attitudes predicted by explicit attitudes (B1) social contact (B2), migration background (B3), gender (B4), political orientation (B5) and religiosity (B6)? To answer these questions, 78 pre-service teachers participated in a multi-method study that included an implicit association test and questionnaires. Results show that there was a significant weak negative correlation between implicit and explicit attitudes. In addition, only explicit attitudes negatively predicted implicit attitudes. Future studies could build upon these findings to further address attitudes and their influence on teacher professionalism for pre-service and in-service teachers.

Responding to wicked problems: how educational theory matters in navigating political agency

Elisabeth Angerer, University of Edinburgh (Organiser); Ramsey Affifi, University of Edinburgh (Discussant); Elisabeth Angerer, University of Edinburgh (Chair)

This invited symposium recognises that we are living in a world of interconnected (societal and) ecological crises. The climate crisis, persistent institutional racism and unpredictable Generative AI developments are examples of so-called “wicked problems” that separately and interconnectedly challenge the status quo we take for granted. Many scholars endeavour to contribute to flourishing on Earth in the face of these challenges, and their efforts can take a diverse range of forms, from approaching crises as topics of research to engaging in open activism. In this symposium, we encounter different approaches to expressing agency in the world as a researcher and explore how educational theory features in shaping action. Three teams of scholars will get together to share reflections on the choices they make regarding their political engagement and their (sometimes conflicting) positionalities. These reflections will be embedded in different conceptualisations of agency, including utopian methodology, engaged vulnerability, and ontological synchronisation. Discussant Ramsey Affifi will make a start to interweave the contributions, opening up the dialogue to those attending.

Research on learning and education as world-making

Alfredo Jornet¹ & Antti Rajala²

¹University of Girona, ²University of Neuchâtel

Education can play a central role in steering societies from unsustainable, fossil-fuel-dependent human activities, which threaten to make the planet uninhabitable. However, this cannot be achieved without a critical revision of our approaches and methodologies in educational research to allow us, and the participants in our research settings, to envision new horizons of possibility that can challenge established systems of activity and understanding of good life and wellbeing. Addressing this challenge, in this presentation we discuss theoretical, methodological, and ethical implications of conceiving research on learning and education as world-making (Power et al., 2023; Rajala, Jornet, & Accioli, 2023). First, we discuss a non-dualist epistemic and ontological stance that does not conceive of world as something “out there” for educators and students to grasp or address, but rather as something already being manifested in and through our forms of participation. The world is always in the making and we are always enmeshed within a developmental struggle. Taking climate change as an example, we conceive learning about it not as something out there to be grasped but as a process of conscientization on our own position in a world that is already unfolding in and through our making. Secondly, as a methodological implication, we discuss utopian methodology as an example of research that takes this idea further and addresses not just what is actual but also what is possible. It is a mode of inquiry for designing, implementing and sustaining institutional innovations as intermediate steps towards the realisation of a utopian goal.

Inclusion, diversity and intersectional activism: Vulnerability meeting the need for transformation in education

Geetha Marcus
University of Edinburgh

Education can play a central role in steering so there is a growing realisation amongst educators in the decolonisation movement that we ought to sharpen our focus on activism that goes beyond the institutionalised anti-racism, inclusion and diversity agendas. Geetha Marcus argues that our understanding and practice of inclusion and diversity within education ought to be firmly based in an understanding of the multiple forms of colonial processes in history and their insidious impact on our lives. In conversation with her colleague, Elisabeth Angerer, Geetha critically explores what it means to apply an intersectional framework (and analysis) of structural power to how we currently operationalise inclusion and diversity within our education systems. This exploration takes as a starting point Geetha's experience of what she terms 'engaged vulnerability' as a woman of colour educator in Scotland, and Elisabeth's insecurities as a junior researcher embedded in a British university that is ablaze with debates around coloniality. In unpacking these positionalities, Geetha supplies key principles espoused by celebrated African American feminist, bell hooks, in her seminal work *Teaching to Transgress* (1994) - her ideas on engaged pedagogies, teaching in a multicultural and translingual world, the ecstasy of learning, the need for dialogue and building community in classrooms.

This conversation encourages us to consider our own narrative and actions, our understanding of what it means to educate and be educated, using intersectional activism and decolonisation to re-frame our conceptions of inclusion and diversity.

What can ontological synchronisation entail in practice?

Arthur Bakker¹ & Sanne Akkerman²

¹University of Amsterdam, ²Utrecht University

In a paper on the relevance of educational research (Akkerman, Bakker, & Penuel, 2021, *Educational Researcher*), we argue that relevance resides in what we call ontological synchronisation—"continuous attunement to what is happening and matters at hand, and what future is being generated" (p. 416). In our contribution to this symposium, we address the question, What does it mean to "walk the talk" when we propose to synchronise ontologically? To illustrate this, we share some considerations we have made before, during, and after conducting a project.

An example of pre-scenery work is Arthur Bakker's exploration of the dilemma whether to engage in research on how generative artificial intelligence (GenAI) is or should be used in education. Where he initially did not want to, mainly because of ethical concerns and the huge energy consumption of such tools, he gradually came to realise he already lived in a world full of AI in which his students already use ChatGPT for various purposes. A decisive moment in this ongoing deliberation was a request from the Ministry of Education, Culture and Science to take part in a working group that addressed the question what the implications of GenAI are for the labour market and education. By doing research on this topic, could he be part of generating a future in a more desirable direction? And if so how?

In our contribution we also give examples of ontological synchronisation during and after research projects on interest, inclusion, translinguaging, boundary crossing, and boundary work.



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SYMPOSIA

Researching perezhivanie and soperezhivanie across domains and contexts

Peter Renshaw, The University of Queensland (Organiser); Kristiina Kumpulainen, University of British Columbia (Discussant); Peter Renshaw, The University of Queensland (Chair)

This symposium on perezhivanie engages empirically and theoretically with Vygotsky's notion of perezhivanie, through which he attempted to theorize learning as part of the drama of life, arising from lived experiences, embedded in a person's social relationships, and shaping their future developmental trajectory (Vygotsky, 1934).

The contributions to the symposium adopt different empirical methods to capture perezhivanie as a phenomenon. Comparing methods across the papers provides insight into how perezhivanie is interpreted and deployed in contemporary research on learning. Walking the talk. Participants are invited to note down a memorable episode (emotional lived experience) that had longer-term consequences for their learning, their careers or everyday lives. "Reliving" a significant experience (even briefly) may facilitate participants' connection to the theory and methodology of perezhivanie. During the discussion participants have an opportunity to comment on perezhivanie (theory and empirical methods) in the light of their own relived experiences and the papers presented during the symposium.

The current affective turn in educational research, partly inspired by Spinoza's notions of affect and monism, has motivated sociocultural researchers to revisit perezhivanie – a concept

that avoids the duality between the person and environment and places emotional lived experiences at the center of developmental learning. Perezhivanie as the unit of analysis does not reduce learning to a single process (thinking or feeling or becoming) but provides the means to study the complexity and dramatic nature of learning. Along with the social situation of development (SSD), perezhivanie offers a theory of learning that is multifaceted, affective, situated, and social with key implications for educational practice (see Roth & Jornet, 2017).

There is increasing scholarly interest in perezhivanie across different domains of learning involving diverse populations and contexts. A recent review of research on perezhivanie (Christodoulakis Carulla & Adbo, 2021) sourced 80 articles, while a search of Mind Culture and Activity located 60 articles. In addition, there is an emerging interest in collective perezhivanie, or co-experiencing and the implications of such joint emotional experiences for both the theory of perezhivanie and educational practices. The concept of soperezhivanie will be further analyzed in this symposium and evaluated as a possible elaboration of Vygotsky's gift.

This symposium is relevant to researchers concerned with "learning from within", that is, with the subjective sense-making and personal interests of learners, as well as researchers focused on group experiences and collective activities. Perezhivanie provides the theoretical resources to address both these aspects of learning. The symposium offers a context for dialogue between these contrasting foci.

Using Perezhivanie in empirical research on teachers' emotional experience

Giuseppe Ritella¹, Pietro Crescenzo² & Beatrice Ligorio²

¹University of Campania Luigi Vanvitelli,

²University of Bari

This paper explores a novel approach to studying the role of teachers' emotions in their professional development. While research often focuses on primary emotions and emotion management strategies, the sociocultural perspective emphasizes the process of reflecting transformation that might stem from complex, lived emotional experiences (perezhivanie). These experiences are seen as transformative for the teacher's self. A method is proposed for analyzing teachers' narratives about emotionally stirring events. This method identifies six theoretically driven key dimensions of perezhivanie: activities, identity, social context, choices, emotional responses, and meaning-making. By examining how these dimensions interweave within narratives, the method aims to reveal how emotionally charged experiences contribute to changes in teachers' motivation and career paths.

The paper details a qualitative research approach for applying this method. It involves a multi-step process of data selection, development of a coding framework, iterative analysis, and visual representation of perezhivanie. The authors discuss the potential and challenges associated with using perezhivaniya in empirical research. They present the method as a promising tool for furthering our understanding of the formative potential of teachers' emotional experiences. The paper concludes by inviting the audience to reflect on the applicability of the method to their own emotionally significant experiences. This "walk the talk" approach encourages discussion on potential limitations and

aspects of emotional experience the method might overlook.

Soperezhivanie: co-experiencing with others and the more-than-human world

Kirsty Jackson

The University of Queensland

This paper examines soperezhivanie as an extension of Vygotsky's concept of perezhivanie. The research occurred across three years as primary-aged children (n=64) participated in environmental education programs. The intention of the overarching study was to understand children's affective encounters with the more-than-human world as part of living in the time of the Anthropocene. Drawing from the limited research about soperezhivanie, this paper examines the experience of two children, Gina and Chris, as they participated in the environmental excursions and created a personal environmental project in preparation to share at a Children's Conference (2021). This paper contributes to the limited research on soperezhivanie by providing rich accounts of children's co-experiencing both with peers, teachers, and with more-than-human others. Soperezhivanie extends the concept of perezhivanie, which typically focuses on the individual/subjective nature of experience, by paying particular attention to the collective involvement of both human and more-than-human others in lived experience.

Japanese students' perezhivaniya and engagement in English language learning

Clarence Ng
Australian Catholic University

This study explores the English language learning engagement of two Japanese students, Yuki and Sakura, examining their perezhivaniya and how these relate to changing patterns of engagement. The analytical process followed a 'thinking with theory' approach (Jackson and Mazzei, 2013), highlighting continuous integration of theory into data and vice versa. Data triangulation was achieved by cross-referencing insights from interviews, observations, and online messages. Within-case triangulation involved a thorough analysis of different data sources for each student, providing a comprehensive understanding of their experiences. The findings of this study reveal the intricate interplay between personal and contextual factors shaping students' engagement responses in English learning. Vygotsky's notion of 'indivisible unity' highlights the dynamic relationship between the individual and their environment during each identified perezhivanie, encompassing both in-the-moment and beyond-the-moment stages. The unique set of personal concerns, situated conditions, and social influences during these stages is pivotal for understanding the contradictory orientations of engagement.

Values and Knowledge Education

Jean-Luc Patry, Paris-Lodron University Salzburg (Organiser); Giuseppe Ritella, University of Campania Luigi Vanvitelli (Discussant); Jean-Luc Patry, Paris-Lodron University Salzburg (Chair)

Values and Knowledge Education (VaKE) is a constructivist, collaborative (co-constructive) teaching-learning method that combines values education (fostering moral judgment competence) and knowledge acquisition through inquiry-based learning. Among others, explicit discussion rules are formulated, including the focus on the argument and not on the person, excluding power relationships, and giving socially reversible feedback. It is an adequate educational approach to deal with current global challenges, including exigent health issues.

Health professionals (nurses, physicians) deal with issues of life and death. They apply highly sophisticated knowledge (knowledge talk) in practical situations (knowledge walk), and in doing so, they often must take ethical decisions (moral walk), i.e., they must consider different action options and the ethical issues involved with each of them: They are confronted with moral dilemma situations. In such a situation, the protagonist has the choice between two actions, but each of his or her action will violate some important values or norms. For instance, a nurse may have to decide whether to comfort a dying patient or to treat a patient with painful decubitus: The nurse cannot do both simultaneously. The protagonist must prioritize the values related with one action over the ones related with the other. Health professionals learn the necessary methods to solve the medical problems (e.g., what cubitus is and how to prevent and treat it), but their professional education rarely prepares them to deal with moral dilemma situations.

In practical situations, the knowledge talk and

the moral talk are closely related: Setting values priorities depend on what the protagonist can do in the given situation. In education, this relationship needs also to be addressed. VaKE is an educational tool that permits this. The first paper presents details of VaKE, while the second and third papers provide examples of using VaKE in medical education. Each of papers address further issues of walking the talk:

The first paper about the method shows how the scientific theories (moral education, inquiry-based learning, collaborative learning) are combined to develop an educational tool that can be used in practice, and that the underlying principles are used in research too. In a practical exercise, the principle of VaKE is further applied with the present audience.

The second paper on nursing education shows, among others, that the participants in VaKE discuss ways of acting beyond the proposed activities; that the collaborative co-construction was not as frequent and sophisticated as expected; and that VaKE could be recognized in the discussions.

The third paper on medical education shows that VaKE can be combined with other methods – in this case, Team-Based Learning (TBL) – and that fostering moral judgment competence is possible without a tradeoff with respect to knowledge acquisition; that medical students appreciate discussing the knowledge and moral issues in relation to each other; and that they estimated their decision-making to be more complex.

Using VaKE in nursing (second paper) requires the participants to consider the perspective of the patients and to “walk in their shoes” without losing the overall perspective regarding the complex situation. Similarly, in the obstetrics study, the presumptive interests of the fetus as “agents” are included in the consideration.

As to the implication of these studies, one must emphasize that they are part of a research program on the use of VaKE in many different fields,

including in the professional health domain. The results are, on one hand, encouraging application in health professional education; on the other hand, the results of the analysis of the collaborative co-construction in the VaKE processes with nurses indicate that the VaKE methodology needs some improvement in this regard.

Values and Knowledge Education (VaKE): The talk and its walk in research and education

Jean-Luc Patry¹ & Sieglinde Weyringer²

¹Paris-Lodron University Salzburg, ²University of Salzburg

Health is one of the many challenges humans are confronted with. Such challenges are characterized by being complex, having multiple action options, and involving both factual (knowledge) and moral issues (values). Educating prospective professionals requires to consider all of these. VaKE (Values and Knowledge Education) is a teaching-learning method that can satisfy these conditions. VaKE is (1) a constructivist approach that combines (2) values education in the sense of fostering moral judgment competence (arguing in favor of or against applying certain values in conflict situations) with (3) knowledge acquisition through inquiry-based learning (searching for answers to self-determined questions) on (4) a collaborative, co-constructive base. Extended research has shown that VaKE is successful in many different contexts with many different target groups: The participants are highly motivated; they acquire at least as much knowledge as the respective control groups; they improve in moral judgment competence and are sensitized for values issues; they become more critical thinkers; they are eager to practice such discussions beyond the specific VaKE learning context; etc. VaKE

is a clearly structured, well-founded method, which however is flexible and can be adapted to the specific requirements of the respective teaching-learning contexts, provided that the principles of the theory are warranted. Such flexibility is an indispensable condition for application in diverse fields, which however is rarely discussed in the literature. The presentation ends with a practical example to be discussed with the audience.

VaKE in nursing education: The quality of online ethical discussions

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¹Pädagogische Hochschule Weingarten,

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³Pädagogische Hochschule Oberösterreich

Nurses face various ethical conflicts in their daily work. However, in their education they do not learn how to deal with ethical challenges in a professional way. The teaching model VaKE, which combines values and knowledge education, offers an opportunity to practise dealing with ethical conflicts based on collaborative learning. The question is how VaKE works within vocational education, whether it is possible to foster intentions to act rather than ethical reasoning as well as to explore the quality of the group discussions in an online setting. Videotaped VaKE discussions of nine groups of students were analyzed in terms of content. In generating the category system the VaKE theory was linked with the ICAP framework in order to reach a more detailed understanding of the quality of VaKE-discussions. The main results are that 1) participants discussed ways of acting beyond the given two alternatives and they were developing action plans, 2) group discussions show mostly not elaborated or active

individual contributions, 3) constructive individual contributions emerged rarely, 4) the quality of discussions on the group level was dominated by cumulative and interactive discussions, co-construction rarely appeared, and 5) the key elements of VaKE could be identified. In conclusion, the integration of the VaKE theory with the ICAP framework led to results that recommend an adaptation of the current process of VaKE to improve the quality of discussion and the moral action aspect.

Values and Knowledge Education combined with Team Based Learning for medical students

Yuri Perlitz¹, Nomy Dickman², Yakir Lidani¹ & Izar Ben Shlomo¹

¹Tzafon Medical Center,

²Bar Ilan University

Team-based learning (TBL) is a structured form of small groups teaching-learning situations for students. Values and Knowledge Education (VaKE) is a teaching-learning method in which a dilemma is introduced into the studied case. The dilemma is used as motivation to foster moral judgment competence and as a trigger for knowledge acquisition of the students. These two methods have different aims and foci but share a common basic – increasing the student's achievements – and satisfaction and can complement each other. The goal of study was to evaluate medical student's knowledge, achievements and satisfaction in a "diabetes in pregnancy" module which included an introduction of a moral dilemma, TBL+VaKE compared to a TBL only module.

We recruited 23 students for the TBL and 30 students for the TBL+VaKE modules. The TBL case described a 42-years-old women who suffered from uncontrolled diabetes, obesity and

hypertension, taking teratogenic medications, who became pregnant. This was her first and desired pregnancy. The TBL+VaKE module added a moral dilemma to the case: offering the possibility of termination of pregnancy. Both groups filled out knowledge questionnaires at the beginning and at the end of the class as well as a perception/satisfaction questionnaire.

In all issues the TBL+VaKE scores were comparable to the TBL's. "Complexity of decision making" reached higher score, statistically significant.

Adding a moral dilemma to a TBL class improved students' complexity of decision making and did not harm knowledge acquisition or satisfaction.

Pedagogies of the (im)possible: Imagining livable futures in troubled times

Antti Rajala, University of Neuchâtel (Organiser); Peter Renshaw, The University of Queensland (Discussant); Kristiina Kumpulainen, University of British Columbia (Chair)

This symposium discusses approaches to education grounded on expansive and imaginative forms of meaning making. It responds to our current troubled times by critically addressing the possibilities and obstacles of radical and creative forms of education aimed at reorienting the nature and purpose of education toward imagination and future making for equity, empathy, justice and hope. In the symposium, Antti Rajala elaborates on a pedagogy of concrete utopias to foster youth agency and activism in formal education. Kristiina Kumpulainen and colleagues address how augmented storying can work as a speculative pedagogy for young people's ecological imagination and relating to the more-than-human world. Peter Renshaw

and colleagues draw on the notion of enchantment and story-thread pedagogy to investigate children's advocacy for local environmental projects. The educational approaches discussed imagine humans as assemblages, materially interconnected, enmeshed within relationships and exercising co-agency or relational agency with others. Together, the papers highlight various approaches to imaginative education drawing on literacy approaches including speculative fiction and re-storying and on a more activist approach. The authors also grapple with tensions between the approaches opening the floor for their speculations too. The symposium pushes the boundaries of conventional education in order to encourage dialogue and creative re/imagining of education futures that posit young people as agentive co-creators of socio-ecological change and that help us better understand the theoretical, methodological and pedagogical grounding of such efforts.

Pedagogies of enchantment in the Anthropocene

Ron Tooth, Peter Renshaw & Kirsty Jackson
The University of Queensland

In this paper, we consider the notion of enchantment as a way to reimagine aspects of education and as a response to the challenges of the Anthropocene. We became aware of the power of enchantment during a longitudinal research project (2019 – 2021) involving 64 primary students aged from 5 – 12 years-old. We documented many instances where children expressed delight and awe as they connected to the more-than-human world. The context for their enchantment was an environmental education program that engages children's imagination through drama and role-play and attunes their senses to the more-than-human

world through firsthand experiences and quiet prolonged attentiveness. In documenting children's learning journeys across three years, we identified specific enchanting experiences that captured children emotionally, cognitively and ethically. This paper considers specific cases, describing key features of enchantment and identifying the pedagogical contexts that supported the experiences. Enchantment provides a framework to reimagine education and develop the dispositions necessary for a way of life based on connectedness to and respect for the more-than-human world.

Formation of student agency in an upper secondary school utopia pedagogy project

Antti Rajala
University of Neuchâtel

Education can arguably play a role in humanity's learning out of unsustainable, fossil-fuel-dependent human activities, which have already made irreversible changes on the planet's climate and environment. A recent report by the UN Educational, Scientific and Cultural Organization UNESCO emphatically stated that it is not possible to continue education as we have understood it until now. Education needs to harness the ability to imagine completely new ways of organizing activities in societies. To address this challenge, this paper examines students' agency formation in a utopia pedagogy project that was planned and implemented by students in collaboration with teachers, young climate activists, NGOs and local policy makers. The project involved an orientation to re-imagine and make a change in the existing ways of living and organizing activity in the municipality. The pedagogical approach built on the concept of "concrete utopia", which concerns leveraging

actual potentials for change in an existing activity. Drawing on longitudinal student interviews, the study asks: What are the meanings and motivations diverse youth attach to the envisioning and building concrete utopias for sustainable futures, and how do these interact over time with the various emergent demands of the activity in and outside of school? How does youth agency develop over time through their engagement in the climate action project? In all, this study highlights the importance of utopian imagination and transformative forms of student agency as a mediator of young people's emancipation in the face of the climate crisis.

Augmented storying as a speculative pedagogy to foster ecological imagination in the Anthropocene

Kristiina Kumpulainen¹, Jenny Renlund², Jenny Byman² & Chin Chin Wong²

¹University of British Columbia, ²University of Helsinki

This study investigates a novel mobile augmented storying method and its educational potential to arouse children's ecological imagination in the Anthropocene. Augmented storying couples culturally-based nature stories embedded in augmented storytelling technology with children's own mobile and multimodal storying in local ecologies. The study is grounded on posthuman scholarship to generate knowledge on how children narrate their relations with the human and more-than-human world across time and space and the performative power of these narratives. The methodological choices of the study draw on postqualitative approaches that allow us to attend to the time-space contexts of children's ecological imagination through the mutual becoming of materialities, bodies, and atmospheres. The empirical research material

of the study was generated together with children (aged 7 to 9 years old) and their teachers in a Finnish elementary school by means of videos, observational field notes, children's narrations of their stories, interviews, and children's story artefacts. The study shows how augmented storying worked as a speculative pedagogy for children's ecological imagination by positioning children into the roles of investigators, authors, and change agents rather than mere receivers of adult information and advice about the Anthropocene. The narratives of the children's ecological imagination were entangled with the children's past experiences and cultural knowledge, ongoing involvement and yet-to-accomplished goals, as well as hopes, worries and concerns. The children imagined possible futures that called for change and action, demonstrating relational agency and care. The research provides insights into the rich and complex narratives children's ecological imagination and underscores the importance of recognizing children as important stakeholders in the Anthropocene whose perspectives can enrich our relational imagining and acting for the future of the planet.





SIG 10, 21 & 25 CONFERENCE
Bari, 11-13 September 2024

PAPER SESSIONS

1B: RESEARCHERS ROLES AND HIDDEN MEANING

Room: Aula Trizio, 11 00 - 12 30

Chair: Marina Videnović (University of Belgrade)

Researchers' Roles and Areas of Conflict in Politically Charged School Projects

Sabrina Bacher¹, Christian Kraler² & Claudia Schreiner¹

¹University of Innsbruck, ²Teacher Education and School Research

The establishment of a new school is inherently political, influenced by various interest groups, especially those of educational policymakers. Data-driven decision-making, increasingly prominent since the 2000s, significantly impacts educational policy, from national reforms to individual schools. Thus, scientists play a crucial role in generating and interpreting data, although their work is inherently subjectively shaped despite scientific standards. The presentation aims to analyze the role of research and researchers in the context of implementing a new Accredited European School, a project with strong political backing. European Schools (ES), established in 1953, offer multicultural-multilingual education primarily for children of EU institution workers. The Accredited European Schools program extends this model to national schools, aiming to promote European ideals. The first Accredited European School in Austria, located in Tyrol, is being implemented with scientific support from the University of Innsbruck. The research project aims to identify challenges and success factors, utilizing process oriented approach that integrates research findings into the implemen-

tation process. The presentation seeks to explore areas of conflict arising from the researchers' role in the politically charged project. These include navigating independence while supporting the project, utilizing research tools effectively, and addressing ethical considerations. By examining these conflicts, the presentation aims to shed light on the complex interplay between politics and research in educational initiatives.

Pedagogical-educational research as a protective and learning factor against discrimination

Loredana Perla¹, Michele Corriero², Rosa Gallelli¹, Ilenia Amati¹ & Mariateresa Santacroce¹

¹University of Bari, ²Laurea UAS

Presentation of the scientific project: "The perception of discrimination on vulnerable categories and the incidence of the phenomenon in the socio-educational and socio-health services of the metropolitan city. Resources and scientific data for anti-discrimination programming and planning in the welfare policies of the Apulia Region". Many discriminatory phenomena still remain invisible, the victims themselves appear scarcely aware of their rights and disoriented in the network of protection or identification of the same violence. The objective is to raise awareness of discrimination pedagogically and socially, to offer tools and educational practices to counteract it and a new learning perspective, skills and metacompetences to educational professionals and institutions. This is to counteract all forms of discrimination and violence and, consequently, all forms of dysfunctional dys-educational adaptation and relational pathology that result in prejudice, racism, stereotypes and further violence.

The hidden meanings of teachers' use of research concepts: a systematic review

Nathanael Jeune
Université Paris Cité

Teachers' use of research is increasingly encouraged on the grounds that it can improve teaching. The evidence-based education movement illustrates a specific view of teachers' use of research, with an associated vocabulary, values and views of research and teaching. Other fields related to teachers' use of research such as knowledge brokering or research-practice partnerships often use other vocabulary and may convey other values and views of research and teaching. Our systematic review of previously published reviews sought to analyze the ways in which the concepts and vocabulary used reveal different perceptions of the teaching profession and the role of research in relation to teaching. Our preliminary results indicate that the dominant vocabulary used within each framework conveys different values or ideologies, not always made explicit. Providing evidence that no paradigm of teachers' use of research in education is neutral or value free, our analysis suggests that a focus on 'impact', 'effectiveness' and 'what works' in evidence-based education, can be detrimental to the teaching profession. We conclude by suggesting a teacher-research framework in which teachers are guided to collaboratively produce research as a way to provide an emancipatory framework to think about teachers' use of research while producing new valuable knowledge for both researchers and teachers.

1C: PARTICIPATION, AGENCY AND CIVIC DISOBEDIENCE

Room: Aula A, 11 00 - 12 30

Chair: Ivana Stepanović-Ilić (University of Belgrade)

ASPIRE: A School Intervention for the Promotion of Active Student Participation

Valentina Grazia, Sara Berti, Maddalena Vavassori & Luisa Molinari
University of Parma

In this contribution we present the ASPIRE (Active Student Participation to Improve the learning Environment) program, a whole-school intervention aimed at fostering active student participation (ASP) through meetings empowering students' awareness of their needs, capacity to identify problem-solving strategies and reflection on their potential in improving school life. The program, developed after a review of the literature on school interventions, was tested in two secondary schools in Italy with a pilot study in 2022/2023 (8 randomly selected classes, N=164, 67% females; Mage =14.81) and with a pre/post-test quasi experimental study in 2023/2024 (20 randomly selected classes divided in intervention and control conditions, N=416, 69% females, Mage 15.16) testing its efficacy in increasing key ASP competencies, namely Agency, Self-efficacy and Problem-solving, measured with a questionnaire. Qualitative analyses of audio-recordings from the pilot study confirmed the program's feasibility and provided an insightful picture of students' views of school life, comprising the problems they feel more pressing, the strategies they find to address them, the processes through which they develop ASP. Pre/post-test comparisons of intervention and control groups on ASP competencies for the quasi-experimental study are still ongoing; preliminary results support ASPIRE's effica-

cy in making students feel involved and actively engaged. In the discussion, we will stimulate the audience to discuss some crucial contemporary questions stemming from the study, such as: can ASP be fostered by short interventions? How can schools be engaged in the process of change? Is the fostering of awareness and reflexivity a good method for improving students' wellbeing?

Civil disobedience in democratic education

Eugene Matusov
University of Delaware

The study's goal was to examine the tension between democratic school governance, requiring its participants to obey school rules, even though they might disagree with those rules, and personal responsibility, requiring the participants to act morally, in accordance with their conscience and their sense of what is right, regardless of the democratic nature of the imposed school rules. This examination was based on three sources: three Open Symposia with American and Russian democratic educationalists, my review of the existing literature on civil disobedience, and my empirical interview-based study of participants in an American democratic private school about their democratic governance and instances of civil disobedience. The three Open Symposia allowed me to develop a working definition of civil disobedience as a particular principled disobedience. My analysis of the literature revealed four types of civil disobedience: instrumental, existential, safeguarded, and expedient. The participants of my interviews in a democratic school – current teenage students, staff, and alumni – reported many instances of diverse civil disobedience but mostly existential. Despite a lack of discussions of civil disobedience in the school, I discovered that the democratic school promotes civil disobedience as its hidden curric-

ulum by supporting students' authorial agency, aiming at the students deciding what is good for them, and opposing educational paternalism.

Upper secondary school students' learning at work: the effect on agency at school

Maria Erss & Krista Loogma
Tallinn University

In the current study, our aim is to understand if and how work experience and the competences and insights that students acquire from work are related to their agency in school. We conceptualized agency as students' agentic engagement in school and their capacity to resist perceived injustice while using the ecological lens on agency which highlights agency as a capacity dependent on time, social and environmental resources. Student-level data (n=3052) was gathered from Estonian upper secondary school students (grades 10-12) in 2022. The survey instrument included scales for agency, teacher support, perseverance and work experience as well as an open question about what students thought they gained through work experience. We used the quantified categories of work-related skills in a multiple regression model to predict agency while adding some personal and school-level factors such as students' perseverance, gender, mother tongue, student achievement in Estonian language, history, mathematics, and perceived teacher support. The results indicate that perseverance, teacher agency support, various work-related specialized knowledge, self-regulation skills as well as social skills significantly predict agency. Students who had better grades in history had somewhat higher agency scores. Boys and students with Estonian mother tongue had comparatively higher agency scores than girls or students who spoke Russian or some other language. The results highlight that stu-

dents develop through work experience besides specialized skills, such as subject-related skills and specific work skills, self-regulatory and socio-cultural skills which benefit their agency at school.

1D: STEM AND DIVERSITY

Room: Aula C, 11 00 - 12 30

Chair: Smiljana Jošić (Institute for Educational Research)

Teaching a STEM subject in a non-STEM course: the case of Psychometrics

Luigi Tinella¹, Giuseppina Spano¹, Alessandro Oronzo Caffo¹, Antonella Lotti², Andrea Bosco¹ & Antonella Lopez³

¹University of Bari, ²University of Foggia, ³Giustino Fortunato University of Benevento

The present study investigates the effectiveness of implementing a Team-Based Learning (TBL) procedure compared to traditional frontal teaching in psychometrics education. The interactive nature of TBL encouraged active participation and knowledge application, leading to deeper learning outcomes. Two classes of psychometrics students were selected, with one group serving as the control group receiving frontal instruction, while the other acted as the experimental group undergoing TBL sessions. The aim was to evaluate the impact of TBL on learning outcomes within the domain of binomial test in psychometrics education. The experimental group participated in TBL sessions, organized into teams, and engaged in collaborative problem-solving activities, discussions and assessments, fostering peer-to-peer interaction and critical thinking skills. Meanwhile, the control group received conventional frontal lectures, characterized by passive learning, and

limited interaction. Data was collected through pre- and post-assessment tests. Significant differences between the two groups are expected, with the experimental group showing a better understanding of binomial test compared to the control group. The present study underscores the potential of TBL as an effective approach in psychometrics education, offering an alternative to traditional frontal teaching methods. By promoting collaborative learning environments and active student involvement, TBL might optimize learning experiences and better prepare students for the complexities of the psychometrics field. Future research will be marked to integrate TBL with video lectures, to facilitate the acquisition of subject matter previously confined to written text, thus enhancing comprehension and engagement among learners.

Understanding student diversity and equity in makerspaces: a mediated discourse analysis

Jasmiina Leskinen¹, Kristiina Kumpulainen² & Anu Kajamaa³

¹University of Eastern Finland, ²University of British Columbia, ³University of Oulu

The popularity and significance of open and blended learning environments have increased in recent years. Along with acknowledging their capacity to promote student equity, there are recognized concerns about the participation of students from disadvantaged social backgrounds. This study evaluates a school makerspace as an example of an open and blended learning environment, analyzing the valuable practices for operating within such a space and the in situ student interactions using mediated discourse analysis. The research investigates the demands makerspaces place on students and how these students, particularly those with diverse needs, navigate such demands. Video

interactions among 30 5th-graders were documented over an academic year, honing in on two students with differing levels of engagement and success. Preliminary findings pinpoint three key discourses: becoming co-directed, engaging in active knowledge creation, and blending boundaries between the digital and the physical. Engaging in these discourses called for digital and cultural literacy; basic and digital literacy for making informed decisions; and flexible resource management skills, respectively. The in-depth analysis of two students highlighted one excelling through independent work and peer collaboration, while the other struggled with the necessary skills and project engagement. The discourses found in our study underscore the complexities of participating in makerspaces and their impact on student learning opportunities and motivation. The results advocate for tailored pedagogical strategies that accommodate all learners, ensuring equitable access to these innovative educational settings.

Translanguaging and meaning making of migrant families during multilingual science museum activities

Lucía Beatriz Chisari¹, Arthur Bakker², Jantien Smit¹ & Elma Blom¹

¹Utrecht University, ²University Amsterdam

Research shows that migrant families who visit museums can experience linguistic challenges that hinder their museum participation. In this study, we aimed to investigate how translanguaging strategies can promote the participation and meaning making of migrant families in science museums. Using design research, we developed multilingual materials for family activities (a treasure hunt and a family workshop) in Dutch, Turkish and English. We then invited sixteen families with a Turkish background (both newcomers and second-generation families)

to participate in the family activities. The data includes: (1) transcripts of interviews with the families before and after the museum visit, and (2), transcripts of video data of the families as they conduct the activities. As they engaged in the activities, parents and children made meaning together of the science knowledge and phenomena, while drawing on their own linguistic repertoires and the languages offered. While engaging in the activities, parents and children mostly spoke in Turkish with each other. However, the more time the families had spent in the Netherlands, the more they relied on the Dutch materials (as opposed to the version in Turkish). This happened to a larger extent for the children than the parents, probably because Dutch is the language of schooling. The parents, however, remarked on the importance of their children being fluent in Turkish for socio-cultural, emotional and career-related purposes. These findings contribute to the understanding of how migrant families use language to make meaning of science in informal contexts and have practical implications for museums who want to become more inclusive of these families.



2B: AI AND TRANSITION

Room: Aula A, 14 45 - 16 15

Chair: Sabrina Bacher (University of Innsbruck)

A phase-model for talent development in peer-interactions

Marielle van den Hul Kuijten^{1,2}, Mayra Mascareño Lara² & Henderien Steenbeek¹ & Jan-Willem Strijbos²

¹Hanze University of Applied Sciences, Groningen, ²University of Groningen

We present a model of Talent Enhancing Peer-Interaction (TEPI) in higher education. This model assumes that talent: a) is emergent (i.e., arising from dynamic interactions between individuals and their environment), b) requires ipsative assessment (i.e., focusing on personal growth rather than external standards), and c) is distributed (i.e., an intermental plane of talent is accessible for the internalization of individuals). We emphasize the socially distributed nature of talent, fostered through peer interactions, conceptualizing talent as a potential within all individuals. The phase model illustrates the dynamic interplay of curiosity, regulatory processes, and knowledge construction in six phases. Our presentation will include practical examples for peer interactions, demonstrating the model's applicability in real-world educational settings.

Responsible AI: Co-Creating an AI Policy for Teaching and Learning at University of Bari

Loredana Perla¹, Stefania Massaro¹, Annamaria Di Grassi¹, Maria Teresa Santacroce¹, Maria Luisa Mastrogiovanni¹, Ugo Lopez¹, Raffaella Forlano¹ & Alessia Scarinci²

¹University of Bari, ²Universitas Mercatorum

This research project aims to create a comprehensive policy framework for integrating artificial intelligence (AI) into teaching and learning practices at the University of Bari, addressing the priorities of the higher education (HE) system. It is grounded in the theoretical framework of faculty development research and digital innovation processes as strategic leverage (Perla, Vinci, 2022). The research targets university and doctoral students and teaching staff. The study develops a phenomenologically oriented collaborative research model, as suggested by Michellini & Perla (2023), to explore current practices and the impact of AI on teaching, learning, and assessment within the university context. The research gathers insights and perspectives from diverse stakeholders through this collaborative approach to inform the development of AI policy. The research aims to investigate current practices related to the use of AI and its impact on teaching and learning processes, identifying areas for improvement and promoting AI literacy. This means equipping teachers and students to effectively utilize AI technologies in their educational pursuits. Overall, this research aims to contribute to the integration of AI in teaching and learning practices at University of Bari. The goal is to foster innovation, enhance learning experiences, and addressing the need for human-centered trajectories of digital innovation.

Bridging Teacher Preparation Gaps: A Global Exploration of Inclusion and Heterogeneity in Transition

Marion Susanne Visotschnig, Thomas Wiedenhorn & Markus Janssen
University of Education Weingarten

This paper delves into the transition of prospective teachers from academic studies to professional practice, focusing on their readiness for the challenges of inclusion and heterogeneity. The central question revolves around the adequacy of their preparation for future tasks, hypothesising that students often have theoretically based beliefs that are not realised in day-to-day classroom practice, particularly in relation to issues of educational equity, performance assessment and student engagement. The research engages in an international project, addressing the need to prepare teachers effectively for diverse classrooms, referencing ongoing international debates on inclusion and heterogeneity. Methodologically, the study combines a comprehensive literature review, which identifies different theories and aspects of heterogeneity and inclusion, with expert interviews on transition, which are analysed using qualitative content analysis. The overall aim is to develop an Online-Learning-Tool that has the potential to improve the quality of teacher education and better prepare prospective teachers for the challenges of the teaching profession, both nationally and internationally. To this end, initial findings from the study will facilitate dialogue with experts from different countries in order to identify potential blind spots, facilitate an exchange of experiences and ideas and incorporate additional international perspectives into the development of the instrument.

2C: AGENCY AND MEDIATION

Room: Aula Trizio , 14 45 - 16 15
Chair: Christian Kraller (Teacher Education and School Research)

Developing Teacher Agency to Support Teachers-Parents Communication in Marginalized Communities

Hadeel Edrees Dabbah, Idit Fast, Haled Al Sayed & Dana Vedder-Weiss
Ben Gurion University

This study investigates how a clinical simulation-based professional development program can foster teacher agency in communication with parents from marginalized communities. The program utilizes scenarios written by the teachers, focusing on conflicts with parents, and facilitates group investigation on these scenarios. Using a linguistic ethnographic microanalysis, we analyze a case study from a video-recorded simulation session with Israeli Bedouin teachers. We suggest using clinical simulations to promote a sense of agency in teachers, particularly those from non-dominant cultures where cultural norms and expectations influence communication styles in understudied ways. This research contributes to developing more nuanced and culturally relevant simulation tools for teacher training.

Learning Context Factors Shaping Learner Agency – An Ecological Perspective

Kaidi Nurmik & Inge Timoštšuk
Tallinn University

Agentic students have the ability to shape their own lives and the world around them. In the learning context, learners become independent thinkers and actors - they practise agency by acting autonomously, employing their understandings in different contexts, and expanding their life-world. In addition to teachers' pedagogical practises, contextual factors are also relevant in creating learning situations that support the agency's formation. We applied an ecological perspective and examined primary teachers' perceptions of learning to illuminate contextual factors that support and hinder agency in learning situations. Our study shows that teachers consider some contextual factors, such as involving different people in learning and cooperating with others to enrich the learning process. However, there are several hindering factors from the broader learning context that the teacher does not control. For example, teachers recognise overloaded curricula, the lack of (financial) resources, or the minimal help in implementing inclusive education. Additionally, there was a lack of willingness on the part of teachers to involve students in the design of learning processes, but this willingness is expected when supporting the development of learner agency. Moreover, learner agency is mostly not recognised as a learning goal; therefore, teacher awareness of the development of learner agency should be raised.

Empowering qualitative research with artificial intelligence

Maria Luongo¹, Michela Ponticorvo¹, Pietro Crescenzo², Maria Beatrice Ligorio² & Giuseppe Ritella³

¹University of Naples Federico II, ²University of Bari, ³University of Campania Luigi Vanvitelli

Qualitative analysis is a critical aspect of research across various disciplines, offering detailed insights that enrich our understanding of educationally-relevant phenomena. However, handling the vast amount of qualitative data can be burdensome, prone to interpretive biases, and limited by the speed of human analysis. In this article, we explore the adoption of artificial intelligence (AI) as a tool supporting researchers in carrying out qualitative research. In particular, machine learning algorithms and natural language processing (NLP), are adopted to support the organization, categorization, and interpretation of large sets of qualitative data. To illustrate the method we use textual data derived from questionnaires filled out by teachers, focusing on the meanings that teachers associate to various teaching methods. Recognizing the intricate relationships between teachers' meaning making and educational practice, this research employs a novel methodological framework that integrates computational analysis with human expertise to delve into the implications that teachers' conceptions of teaching methods might bear for teachers' emotional responses to teaching and their wellbeing. Furthermore, we discuss the ethical and methodological challenges associated with the use of AI in this context.

2D: AI MEETS CREATIVITY

Room: Aula C , 14 45 - 16 15

Chair: Luisa Molinari(University of Parma)

Arts-based and deepfake practices to foster AI ethics literacy

Anna Keune, Santiago Hurtado, Živa Simšič & Sezen Perçin

Technical University of Munich

The widespread use of Artificial Intelligence (AI) in educational settings introduced ethical considerations. Ethical frameworks can guide best practices with AI. However, current frameworks have not been developed for education. There is a need for recognizing and fostering AI ethics literacy. Building on constructionist learning theory, we created AI-based scenarios to foster conversations about AI ethics through the design of personally meaningful projects. We conducted qualitative video-based research in a 4-day workshop setting with nine girls (self-identified; 13-14 years old) and analyzed how youth discussions and practices reflected engagement with the OECD AI ethics principles. We analyzed the data by developing a codebook of the OECD principles, including subcodes per principle that specify how youth interactions and talk evidence the principles in the data. In this paper, we show two examples of how AI ethics were fostered through the creation of personal projects with deepfake technology, namely human-centered values and accountability. Youth discussed AI ethics principles through arts-based explorations of their personal projects to reflect on how AI works, the features it should include, and the possible impacts of its use. The scenarios supported discussions about AI principles and showed how arts-based approaches can support the overlapping of multiple principles necessary to support student-centered AI ethics literacy.

Patterns of creativity and reasoning in teacher student interactions in elementary science lessons

Elisa Kupers, Marijn Van Dijk & Astrid Menninga
University of Groningen

Young children often show a great interest in natural and science related phenomena, and also prove to be able to reason about these phenomena on an elementary level. Furthermore, engaging in science lessons requires convergent and divergent thinking when students engage in generating, testing and evaluating hypotheses. This makes science education in the early elementary grades a particularly suitable context for studying the intertwining of creative thinking and scientific reasoning, in interaction between the student and their social context. Therefore, the aim of our study is to analyze how momentary teacher behavior is associated with the level of novelty and task-related scientific reasoning in teacher-student interactions. In our study, primary education teachers and their 4-to-7 year-old students in 14 classes participated. We coded the utterances of teachers and students on a moment-to-moment basis and assessed the level of novelty and task-appropriate scientific reasoning for the students, and the instructional behavior of the teacher. We used sequential analyses to look at connections between teacher behavior and student novelty and task-appropriate reasoning, and combined this with qualitative descriptions of contextualized interaction sequences. Preliminary analyses revealed that interactional patterns are idiosyncratic and different for each class. Teachers alternate on a moment to moment basis in their level of openness, balancing between providing structure and stimulating students' creative thinking. There seems to be a relationship between teachers' openness and students' level of novelty.

“Some of them were too simple”: Architecture students design structures with everyday objects

Živa Simšič, Xin Xu Pierluigi D’Acunto & Anna Keune
Technical University of Munich

In recent years, interdisciplinary approaches have emerged that call for the merging of architectural aesthetics with structural design. However, educational approaches that integrate both architectural design expertise and structural engineering principles are lacking, and providing high-quality and personally meaningful opportunities for architecture students to practice structural design remains a challenge. Guided by constructionist approaches to learning, we investigated first-year undergraduate architecture students’ application of structural principles as they designed structural and balancing structures with everyday objects. Data was collected from 186 undergraduate students through learning diaries and pictures, focusing on the application of three equilibrium concepts: stacking, spanning, and cantilevering. We iteratively and thematically analyzed the concepts students applied in their structures and their reflections. The findings indicate that structural design activities with everyday objects can support the connection between aesthetic considerations and understanding of basic structural concepts, such as stacking. The use of everyday objects in design structures provides students with opportunities to apply structural concepts, identify them within the elements of their designs, and examine their aesthetic concerns to meet the structural requirements.

WEDNESDAY, SEPTEMBER 11TH

3A: OUT-OF-SCHOOL LEARNING AND EXPLORATIONS

Room: Aula A, 16 30 - 18 00

Chair: Maria Erss (Tallinn University)

Amplifying the Child-Time-Space connection: Reflections on a Class without Walls project

Adrian-Mario Gellel & Amanda Morales
University of Malta

“Situatedness” has strong transformative implications. By highlighting the relational character of meaning making and learning, it stresses the importance of understanding the learner holistically, as an active agent connected with the environment and the human community. Contrastingly, it underscores the existing fragmentation and dichotomy between what happens in a traditional classroom setting and the optimal state of learning. Although this divide is difficult to overcome, it is not impossible to do so as shown by sociocultural learning pedagogies. To achieve this, one needs to detach from the instrumental view of education and seek to revive the spirit of education as an “emergent” entity that is self-sustaining and self-nurturing (Osberg & Biesta, 2021). The present paper reports the reflections on a six-day Class Without Walls project using the affordances provided by a medieval fort and its surroundings to accompany 66, 6-8 year old children on their learning journey. Extending on a Symbol Literacy pedagogy (Gellel, 2018), the Class without Walls project promoted active participation and inclusion while addressing all areas of the formal curriculum through sixteen learning activities that put narratives and context at the centre of the learn-

ing process. Educators noted that the adopted pedagogy has the potential to address the requirements of the neo-liberal curriculum, while empowering them to provide a more holistic and rich learning experience to pupils.

Students' professional skills and maritime competence developed in and through as-if situations

Mari Starup¹ & Charlott Sellberg²

¹Department of Maritime Operations, ²University of Gothenburg

As the maritime domain is safety-critical, the students have to train to become professional mariners. This paper explores how students play and perform navigational roles as bridge teams to learn how to become professional mariners during maritime simulator scenarios. Using Goffman's (1969) notion of as-if situations, we seek to explore how students perform their roles as captains, navigators, or helmsmen during simulated exercises and how they display their know-how through their interactions visible as embodiment and conversations in the simulated scenario. Taking the departure in theories of cognition and learning as cultural, historical, and social processes of meaning-making, we study how these processes are visible in interactions among students and instructors in simulator-based activities. Methodologically, the study draws upon an ethnographic scrutiny of 35 bachelor students and one instructor in a maritime full-scale simulator. This study zooms into one bridge team consisting of seven students participating in a simulator exercise of seven hours. Analytically, this study focuses on the interaction among the students, the simulator, and their embodied actions throughout the exercise. The preliminary findings document/show how the students interpret and undertake the given roles as if in the simulated scenario. Immersed

in the simulated environment/ Participating in a simulated environment looking like a realistic/authentic bridge on a ship, the students negotiate and display their navigational know-how in the roles of navigator, captain, and helmsman on the path of becoming future mariners.

Peer-to-peer reflections in maritime training: Exploratory talk in student-led post-simulations

Anastasia Skarpeti¹, Astrid Camilla Wiig² & Charlott Sellberg³

¹NTNU - Norwegian University of Science and Technology, ²University of South-Eastern Norway, ³University of Gothenburg

Simulation-based training is a fundamental aspect of Maritime Education and Training (MET), enabling performative work-related activities. A growing trend in maritime higher education institutions in Scandinavia is to offer supplementary training to students during non-school hours by involving senior-year students as assistants, known as Simulation Student Assistants (SSA), who are trained to run simulators, support novice fellow students in developing navigation learning, and aid them in practising training. From a sociocultural, dialogical perspective, this study focuses on how students develop navigational competence through conversations with more advanced peers in SSA-led post-simulation discussions. The research questions are twofold: (1) How do students make use of experiences from the previous scenario as dialogic resources for joint meaning-making in debriefing? (2) How do students' negotiations of know-how open for a shared understanding of the simulation? This study utilized 55 hours of video data from bachelor's programs in two Nordic universities with expertise in involving SSAs in simulation training to investigate exploratory talk in peer-to-peer conversations. The preliminary findings show

how post-simulation discussions between SSAs and novice students open for participating in exploratory talk and the anchoring role of play-back technologies in these simulated activities. This study discusses how student engagement occurs in post-simulation debriefing, where SSAs and novice students engage in exploratory, collaborative conversations, and delves into how exploratory talk opens up retrospective discussions in simulated professional training. Additionally, it contributes to simulation-based training in the maritime domain from a sociocultural perspective, and is not limited to.

THURSDAY, SEPTEMBER 12TH

4A: DIVERSE LENSES OF KNOWLEDGE CONSTRUCTION

Room: Aula A, 09 00 - 10 30

Chair: Nathanael Jeune (Université Paris Cité)

Generative Artificial Intelligence in Education: From Static Outputs to Dynamic Social Relations

Gideon Dishon
Ben Gurion University

Initial reactions to ChatGPT's impact on education have leaned towards dramatic and even sensational visions, both utopian and dystopian. I argue that the majority of responses have engaged with the outputs produced by Generative AI. This talk shifts the focus of the inquiry, exploring the mundane ways in which the mediatization of learning through technologies that mimic human-like social interaction could reshape education. This implies shifting from examining how artificial intelligence could impact learning to how artificial sociality reshapes education. To unpack this conceptual shift, I focus on three unique features of education, arguing that it is a relational, intentional, and open-ended endeavor. In contrast to learning or training, education entails learning from someone, learning for a reason, and bolstering students' capacity for future learning. Accordingly, I scrutinize how unreflective use of Generative AI in education could lead to educational contexts that are opaque, solipsist, and stagnant. Such an analysis strives to highlight that attending to the impact of Generative AI on education entails going beyond examining static outputs and paying more attention the dynamic and evolving ways in which such technologies are entangled in educational pro-



cesses. This includes examining how we design or perhaps ‘educate’ such machines, and how uncritical use of Generative AI could undermine some of education’s unique human features.

Balancing on the fourth wall: Knowledge construction in research with young children

Arniika Kuusisto
University of Helsinki

This presentation focuses on a theoretical and research ethical dimension of studying children’s values and value learning trajectories, worldviews, and in a further stage the existential resilience of young children (ages 2-6, n=45). The research design involved children’s digital audio-visual autobiographies to the instruction “What is important and valuable to you? Why?”, constructed during a week in their every-day with their chosen tools and methods using a tablet computer. After that, they were asked to tell about their constructed data to the researcher, who asked further questions based on these narratives in a video recorded personal interaction. Besides presenting some of the findings, the paper addresses the research ethical and methodological question of understanding and asking an informed consent with young children. This is theorized through utilizing the Encyclopedist Denis Diderot’s (1758) theater performance related notion of fourth wall in examining the researcher’s and the child’s changing power positions in the knowledge production of a research process. The preliminary findings highlight the importance of relationality in the children’s perceptions of both values themselves and the processes of their value learning. Furthermore, the hybridity of worldview elements as well as children’s perceptions of their existence and “being-in-the-world” (Heidegger 1927/1962) is exemplified. The findings contribute to educa-

tional research with young children in the conceptual, methodological (e.g. operationalisation) and research ethical levels, besides informing teachers in the early years about children’s values and life worlds.

Intersectionality as a lens: Oppression as a threat for inclusion in vocational education

Jasperina Brouwer & Mayra Mascareño Lara
University of Groningen

The population of the nursing task force is homogeneous in terms of gender and cultural background, whereas the patient population is diverse in multiple ways. Nursing vocational education aims for more inclusion and diversity but considers that oppression in the nursing field is a threat. This study aims (1) to get a better understanding of the experiences of oppression as a trainee in nursing, (2) to reveal misconceptions in the guidance of mentors and teachers in response to oppression in their interns, (3) to provide recommendation how to reduce oppression and enhance inclusion and diversity in nursing vocational education. The literature shows, in line with Young’s five faces of oppression, that marginalization, powerlessness and violence are quite common. In addition to a literature review, we conducted a narrative analysis based on an in-depth case study with a former nurse, diversity officer and teacher in nursing vocational education. She reflected on the experiences of oppression and misconceptions by mentors and teachers about how to deal with oppression. Finally, she provided recommendations for nursing education. Interns have to deal with different forms of marginalization and discrimination. Oppressive situations sustain due to white ignorance and color blindness. It is recommended to become aware of oppression, debate and reflect, develop protocols, and

train victims and bystanders on how to deal with oppression. Reduction of oppression may enhance the inclusive environment and welcome nurses (in training) from different backgrounds.

4B: TEACHERS AND DEVELOPMENT

Room: Aula Leogrande, 09 00 - 10 30

Chair: Marielle van den Hul Kuijten (Hanze University of Applied Sciences, Groningen; University of Groningen)

Co-creating the peer-mentor role

Maren Omland, Peter Forde Hougaard, Sara Rivenes Lafontan & Heidi Jerpseth
Oslo Metropolitan University

Peer-mentoring holds significant promise for supporting student learning and wellbeing and for increasing retention. However, there are still unsolved questions concerning its practical implementation. The peer-mentor role can be challenging, and peer-mentors often find themselves navigating between institutional mandates and expectations from mentees. We examine co-creation as an approach to address such challenges. Enabling a diversity of voices and perspectives, co-creation supports a more democratic positioning of stakeholders. We explore a) how co-creation processes can be designed to position mentors with enhanced agency and voice, and b) how co-creation processes may contribute to the development of peer-mentoring programmes in higher education. We conducted a case study of a peer-mentoring program in nursing education that enrolled 490 students a year. In this program, three interdependent interactions between a) the mentors and the mentees, b) the mentors themselves and c) the mentors and staff contributed to informing and substantiating the co-creation of the further development of the peer-mentor role. The sequence of these interactions positioned the mentors as experienced when they met the program-manager and consequently strengthened their positions in the co-creation processes. We found that peer-support can strengthen students' positions in co-creation processes by



enhancing agency and voice. When students are thus positioned, co-creation can contribute to the development of peer-mentor programmes by bringing forth students' voices and opinions, which can lead to innovative design solutions.

Perspective Taking in Teacher PD Discourse about Parents' Emotions

Dana Vedder-Weiss, Idit Fast, The Late Yasmin Zohar & Gideon Dishon
Ben-Gurion University

Research suggests that the gap in perspective between teachers and parents plays a crucial role in parent-teacher conflictual interactions. Relying on literature highlighting the importance of teachers' agentic framing of problems of practice, we examined what roles teachers attributed to themselves when discussing parents' emotional perspectives during a 30-hour professional development (PD) program aiming to support teachers in managing parent-teacher conflicts and whether and how these roles manifested teachers' agency. We identified five primary roles: a ventilation object, a projection of parents' sense of failure, a victim, a representative of an untrusted system, and an agent that triggers or relieves parents' emotions. The findings show how a PD can open a space for teachers to take the parent's perspective and discuss parent emotions in agentic ways, but at the same time how it might socialize teachers into a discourse of little agency, with implications for PD design and facilitation.

A Quasi-community lens on supporting action research and affectivity in teaching

Aspasia Dania¹, Francesco Arcidiacono² & Maria Antonietta Impedovo³

¹National and Kapodistrian University of Athens,

²University of Teacher Education (HEP-BE-JUNE), ³Aix Marseille University

Teachers are increasingly invited by national and international agencies to cross boundaries, to develop new knowledge, and to deal with many changing conditions. Considering these challenges, researchers and practitioners in science education have increasingly called for collaboration to deal with the complexity of teaching processes. A concrete example of considering these complex issues is provided by the existing literature on communities of practices. Recently, the concept of "community" was extended to the notion of "quasi-community" describing an occasioned, temporally limited community that is less structured and whose relations are less spatiotemporal. In this study, the concept of quasi-community will be adopted to analyse a case-study about collaborative and international groups of researchers and teachers involved within action research focused on building micro-projects about affectivity.

Affectivity has the potential to challenge the notion of the self-contained individual and address issues of change and transformation in classrooms. As a social, rather than psychological construct, affectivity refers to the collective forces and interactions that can make teaching truly relational and connecting. Thus, it would be interesting to investigate how a teacher can create an environment of affectivity within which students will develop a task-oriented attitude towards learning. This study focuses on the following: Whether and how does the quasi-community empower affectivity in teachers who are collaborating to implementing ac-

tion-research-based projects within their school curriculum?

The community selected to be analysed as a case study for this project is part of the Erasmus UNI-T Academy Project. 17 Physical Education (PE) teachers and 8 teacher educators from different countries (Greece, France, Italy, Spain) participated in the community and were linked together by an online learning platform, and an e-community space to share resources, to interact regularly and to develop their reflections. The results show that teachers and teacher educators perceive the quasi-community not only as a context of professional learning but – mainly – as a set of conditions and material structures that could enable and/or constrain learning. Concerning affectivity, the findings reveal that the resonance of teachers' participation in the community support an understanding to design learning environments that are affectively malleable for students to evoke strong emotions and address appropriate subject matter in an authentic way.

4C: PROFESSIONAL LEARNING AND COLLABORATION

Room: Aula C, 09 00 - 10 30

Chair: Stefania Massaro (University of Bari)

Teachers' Professional Learning: Reflective Practice and Collaboration in Authentic Environments

Senja Celius & Wenche Rønning
Nord University

The current study explores implications for teachers' professional development, advocating for continuous learning in authentic settings, shifting the focus from traditional professional development to teachers' learning. By using video recordings in collaborative environments, we try to foster reflective practices and facilitate pedagogical refinement. In this study considerations about teaching roles, collaboration dynamics, verbal communication, and task design emerge as crucial topics. The lesson study approach employed guides teachers through a transformative process, transitioning from initial surprise and frustration to curiosity and appreciation for video-based reflections. By acknowledging the significance of authentic learning environments and innovative methodologies like video-based reflections and lesson study, the study may offer insights for educators, policymakers, and researchers seeking to enhance teaching and learning practices in today's ever-evolving educational landscape.



Diversity in teacher education: Games based approach to talk about diversity in educational contexts

Paula Guerra, Cecilia Millan, Maribel Calderon, Andrea Lopez, Carolina Gonzalez & Francisca Garrido
Universidad Catolica Silva Henriquez

International research shows that preservice teachers have few learning opportunities to talk and reflect about diversity, which impacts in their future professional practice (Ellebrock et al., 2016). This situation might be explained, in part, because teacher educators do not feel competent to address diversity in their practices (Botha and Baxen, 2018). Activities that encourage collective reflection and discussion among peers, such as board-games, might be useful in teacher education. In this context, during 2023, a didactic material was elaborated in the format of a board-game by the researchers. The material was validated and piloted with preservice teachers. In 2024, the game will be used to collect data about how the game might foster dialogue and reflection about diversity in teacher education. Using a qualitative perspective, this study will focus on the experience of preservice teachers, playing the game. Data will be gathered by a semi-structured interviews and non-participatory observation. It is expected to work with 4 groups of 4-5 preservice teachers from May to July. Analysis will be carried out by thematic content analysis for the interviews and observations, and interaction analysis during the game sessions. The game includes a board, a set of pins and sand clock, and a set of cards that addressed different aspects about diversity. Preliminary results show that the game provided an experience of dialogue and reflection for pre-service teachers. Design and pilot process were an opportunity to learn about innovative approaches for teacher education. Practical implications for teacher education will be discussed.

Temporal, social and material premises for collaboration and meaning making with desktop simulators

William Gyldensten¹, Astrid Camilla Wiig¹ & Charlott Sellberg²
¹University of South-Eastern Norway, ²University of Gothenburg

In maritime education, desktop simulators have been used for decades as a computer-supporting tool for students to perform and train basic navigation on instruments and navigation practice. A maritime-certified instructor has served as a facilitator of the exercise, providing an overview of the students' performance in relation to professional standards. This study builds on interaction analysis of 8 hours of video recordings of maritime bachelor students' (n=45) participation in desktop-based navigational exercises. The aim is to investigate how students and instructors work together around an exercise on desktop simulators, where students train to use radar for maritime navigation and to outline temporal, social, and material premises for collaboration and learning with desktop simulators. Our findings show how and why different social and material premises shape collaboration and meaning-making activities, and discuss the implications for instructional design in simulation-based training.



5B: SCIENCE OUTSIDE THE SCHOOL WALLS

Room: Aula Trizio, 11 00 - 12 30

Chair: Arthur Bakker (University of Amsterdam)

Examining children's Interest Development in Everyday Family Science Interactions

Irit Vivante & Dana Vedder-Weiss
Ben Gurion University

This case study delves into science interest development within family interactions. Through a two-year insider-researcher ethnography of one family, we captured science-related interactions through 24/7 video and audio recordings and examined Eyal's (3 years-old) interest development. Analysis unveiled the intricate interplay of emotion, epistemic agency, mediation, and learning in interest development. It sheds light on how these components shape each other throughout the process. By exploring everyday interactions, this research enhances understanding of interest mechanisms within a child's micro-level environment, and thus, emphasizes the role of interaction in shaping interest and facilitating learning.

Museum and science centre educators' perceptions of addressing students' career awareness

Helene Uppin & Inge Timoštšuk
Tallinn University

A wide range of contexts affect students' career awareness, most prominently home and school.

Participating in curricula-related learning activities at museums, science centres and other out-of-school learning environments (OSLE) during formal education can introduce new career trajectories too. However, students' access to OSLE's is uneven and all school teachers do not value learning at OSLE-s nor consider it an integral part of formal education, resulting in an experience gap. Yet, it is unclear how OSLE educators address students' career awareness.

Our aim was to explore how OSLE educators perceive the connection between their curricula-related learning activities and students' career awareness; and to find out what influences their collaboration with school teachers in this context. 27 OSLE educators participated in focus group interviews (2020), and 43 OSLE educators participated in written interviews (2024). Qualitative content analysis was used to find meaningful patterns from the dataset.

We found that OSLE educators generally do not explicitly conceptualise career awareness. However, they support it during learning activities: introduce career paths and offer authentic work-related learning tasks connected to their respective fields, encourage children to explore their strengths and interests, etc. However, the nature of collaboration with school teachers is seldom personal, specific or student-centred, and is often solely mediated by funding schemes, the national curriculum and/or marketing materials. Thus, the potential of collaboratively addressing the societal expectations connected to students' career-awareness has not been fully realised due to the lack of meaningful collaboration between school teachers and OSLE educators.

What is “our place” in the museum?

Yael Eshed Silver & Tali Tal
Technion - Israel Institute of Technology

Efforts to engage youth with science have intensified, yet many initiatives struggle to achieve desired outcomes, often leading to a disconnect between pupils and science. Museums offer immersive learning experiences, but single-day visits often yield limited efficacy. Continuous museum programs hold promise for deeper engagement and learning. This study investigates pupil engagement following continuous participation in two science museum programs, aiming to identify productive practices. It proposes a novel research approach combining philosophical analysis with empirical investigation to explore the role of place in enhancing youth engagement. Two case studies conducted at the “Citizen-Lab” reveal different success of the programs, as described by the participants. The meaning of the museum as an educational place, and pupil roles within the educational structure emerged from the data. Findings underscore the importance of meaningful connections to the museum as a cultural place of heritage and conceptual scheme, as well as pupils’ roles as leaders in educational activities. Recognizing the multifaceted meanings of place and pupils’ positions within educational structures can enhance pupils’ sense of place, place-attachment and promote deeper engagement with science. This study contributes to the discourse on place-based education by highlighting the importance of considering “place” as one’s role within educational settings. By acknowledging diverse meanings of place and their practical implications, educators can improve pedagogical practices and enhance pupil engagement with science.

5C: DIALOGUE, COHESION AND TRANSITION

Room: Aula C, 11 00 - 12 30
Chair: Adrian-Mario Gellel (University of Malta)

Why not dialogue? Polarization at secondary schools in the Netherlands

Maria de Haan
Utrecht University

This paper aims to shed light on the everyday of ‘polarization’ in secondary schools in the Netherlands by looking at how polarization is (re)produced in a conversation between different parties that represent polarized groups. Conceptually, the paper is inspired by Lyotard’s point that a fundamental problem of pluralistic societies is that they lack some sort of universal vocabulary in which potential conflicts and the discussion about common interests can be addressed as well as by a local and everyday perspective of peace-making and reconciliation. Methodologically the paper draws upon critical discourse analyses and linguistic ethnography perspectives. The data consists of transcriptions of 6 round table sessions in which nineteen teachers participated. The participants came from schools who are different in terms of their student population, including so called elite ‘white’ schools to schools with almost only immigrant students. The analyses focused on how ‘polarization’ is experienced, defined, and understood by teachers. Taking a close look at the dialogues held between these teachers that represent different groups in the society, the paper shows how polarization is kept intact by the opposition of incommensurable positions as well as by the juxtaposition of the rules on how to play the game. It aims to unravel the everyday contradictions, tensions, incongruencies that constitute and keep polarization in place. The paper ends with providing conditions that

help overcome the reproduction of existing controversies in schools through dialogue and engages with the audience in the further shaping of dialogical interventions in polarized settings.

Achieving cohesion through emerging vocational identities in interdisciplinary vocational education

Kenneth Silseth, Kenneth Pettersen, Hans Christian Arnseth & Kristin Vasbø
University of Oslo

In interdisciplinary teaching in secondary education, cohesion has proved to be a consequential and challenging feature. Cohesion refers to how different school subjects are “threaded” together, or not, in interdisciplinary education. While there are plentiful typologies of levels of integration, few studies explore the unfolding of in situ activity which triggers or halts cohesion. In this paper, we analyse video-recordings of social interactions from a case study of a teaching unit, addressing socio-scientific issues related to preparations to become a professional carpenter, in a vocational secondary school carpenter program. Our study expands on the notion of cohesion and includes notions of identity to understand how students’ emerging vocational identities (“becoming a carpenter”) serve as productive mediational means for students learning about socio-scientific issues. Our findings suggest that teachers and students not only work to achieve cohesion between disciplinary conceptual and material apparatuses but also interweave emerging vocational identities, producing highly resonant spaces for young people who typically struggle in educational settings. When students’ vocational identities are summoned as mediational means, the interdisciplinary exploration of socio-scientific issues takes on new significance for the students. To construct cohesion between school subjects’

teachers and students mobilize “work relevant” resources. In whole-class discussions, teachers and students discuss these issues and achieve cohesion through projecting to past and prospective events and coordinating various material and discursive artifacts in the classroom. Thus, the multiple events and artifacts are thus held together though their role in the students’ vocational identities.

Making transitions: youth outside of education, employment and training

Astrid Camilla Wiig¹, Willy Aagre¹ & Hanna Traedal²

¹University of South-Eastern Norway, ²Person-
alpartner AS

The background of this study is an interest in transitions of young people outside of education, employment, and training (NEET), and especially in their reflections over their abilities, vulnerability, and future risk of becoming “outsiders” of the society, health, and welfare services. Dropout is linked to alienation among young people and entails many challenges, first and foremost for the individuals concerned, but also for future education policies, health care and welfare service systems. In this paper we will concentrate on the individuals’ concerns and want to explore a more down-to-earth and dialogue-oriented narratives based on lived experiences of the individuals. The study builds on analysis of seven videorecorded, semi-structured group and individual interviews of young people between 20 – 35 years old in the transition between education and work-training or facilitated employment. We have explored them more closely through a case study design, as examples of different transitions paths. We use Rosa’s concepts “resonance” to emphasise the meaning of institutional frames which are sensitive and supportive of individuals reflections over own lived experience. The article illustrates

the nature of being in transitions and ways of co-constructing meaning in a pilot-project using virtual career-supervision as a tool for simulating work opportunities.

5D: PERSPECTIVES OF DIVERSITY

Room: Aula A, 11 00 - 12 30

Chair: Larike Bronkhorst (Utrecht University)

Teaching of newly arrived migrant students in Estonian schools: the view of leadership

Maiki Vanahans¹, Krista Uibu² & Inge Timoštšuk¹

¹Tallinn University, ²University of Tartu

This research explores Estonian preschool and school leadership views on teachers' work with newly arrived migrant students and the support provided by leaders to teachers' instruction of newly arrived migrant students. The study employs a qualitative research perspective, focusing on the teaching of newly arrived migrant students (NAMSs). The research framework is based on culturally responsive teaching and culturally responsive school leadership. Data collection involved semi-structured interviews with preschool and school leaders. The study also utilised purposive sampling to reflect the views and practices of leaders from preschools and schools that have accepted NAMSs. Preliminary results indicate that although diversity is valued in participating organisations, it is not utilised in student learning as an asset and richness. In addition, leaders offer teachers support in teaching NAMSs by enhancing collaboration, professional development and hiring additional staff. This study contributes to the understanding that in implementing culturally responsive teaching successfully, more attention needs to be turned to culturally responsive school leadership.



Minority and majority perspectives on exchange interventions on primary schools in the Netherlands

Tjitske de Groot & Maria de Haan
Utrecht University

School segregation, based on factors like parental education and ethnicity, could pose challenges to social cohesion in the Netherlands. Drawing from Allport's contact theory, intergroup contact interventions, often implemented in school settings in the format of an exchange of students between schools, aim to mitigate negative attitudes towards others. However, research suggests that the efficacy of these interventions varies, with limited attention paid to potential negative effects and disparities in outcomes between majority and minority groups. This study investigates the experiences and perspectives of teachers and school leaders regarding exchange interventions in primary education, particularly focusing on differences in outcomes for children from minority and majority backgrounds. Using qualitative methods, twelve interviews were conducted with teachers and school leaders from urban primary schools in the Netherlands between November 2023 and July 2024. Initial findings indicate that students generally have limited interaction with peers from different backgrounds. While exchange projects are viewed positively as opportunities for citizenship education and cultural exposure, challenges such as communication barriers were noted. Importantly, schools with minority populations expressed concerns about reinforcing stereotypes and exacerbating stigmatization. The discussion underscores the need for interventions to be sensitive to power dynamics and communication styles, emphasizing clarity in goals to avoid perpetuating prejudice. The study highlights the complexity of exchange interventions and urges careful consideration of their design and objectives to ensure inclusivity

and mitigate the risk of exacerbating social divisions.

'A role model is someone who' Role models according to ethnic minority and majority medical students

Isabella Spaans¹, Renske de Kleijn¹, Piet Groot² & Gönül Dilaver¹

¹University Medical Center Utrecht, ²Utrecht University

It is a common conception that students who are culturally underrepresented in medicine (URiM) do not have enough representative role models. This study presents the first empirical analysis of medical students' clinical role model definitions, exploring the role of ethnicity in the form of student migration background and role model representativeness. The authors use a conceptual framework of a four-stage role modeling process: Idealization, Social comparison, Composition, and (Behavioral and Symbolic) Outcomes. A survey among all eight Dutch medical schools resulted in 363 students completing the statement 'A role model is someone who...'. These answers were coded based on the conceptual framework. Students also indicated if and how many role models they have (Composition) and rated the similarity to their role model. URiM (N=62) and non-URiM students (N=301) were compared using χ^2 - and t-tests. URiM and non-URiM students' responses were similar in number of role models and the reported role modeling stages. However, URiM students rated the ethnic similarity to their role models lower than non-URiM students. Symbolic role model outcomes were reported less often by students with less ethnically similar role models. This study empirically showed that students' migration background does not affect if they have role models or how they define them. They do have fewer representative role models, and the ethnic similarity between students and their clinical role

model affected their symbolic value. Outcomes suggest that URiM students may not benefit from role modeling the same way that non-URiM students do.

THURSDAY, SEPTEMBER 12TH

6C: WELLBEING, PEER SUPPORT & COLLABORATION

Room: Aula C, 14 45 - 16 15

Chair: Paula Guerra (Universidad católica Silva Henríquez)

Peer relationships and study wellbeing: Upper secondary students' experiences

Lotta Tikkanen, Henrika Anttila, Sanna Ulmanen & Kirsi Pyhältö
University of Helsinki

The role of peer relationships in a student's study wellbeing has been emphasised in research. However, the development of functional relationships with peers in educational settings cannot be taken for granted. In this study, we aimed to understand the variations in upper secondary school students' experiences of peer relationships in terms of sense of relatedness, cognitive and affective empathy skills and peer support for studying, and whether variation in these regards are related to study wellbeing. Two hundred and eighty Finnish upper secondary education students participated in the study. The data were analysed using latent profile analysis (LPA). Three distinct peer relationship profiles were detected among the students. Most of the students belonged to the functional peer relationship profile, while a minority belonged to either isolated or emotionally unrelated profiles. The students in the latter two profiles had a higher risk of experiencing challenges in study wellbeing in terms of reduced levels of study engagement and higher levels of study burnout symptoms. The findings imply that students in upper secondary education might need different kinds of support in building functional peer re-



relationships. For example, some of them might benefit from learning empathy skills, while others might need support to meet their need for a sense of relatedness among peers.

Dynamics peer support and empathy among upper secondary school students

Lotta Tikkanen, Henrika Anttila & Kirsi Pyhälö
University of Helsinki

Previous studies have demonstrated a strong link between students' empathy skills and functional peer interactions. However, the evidence regarding the dynamics between peer support for studying and empathy skills among students is limited. In this study, we aimed to understand the longitudinal associations between students' cognitive and affective empathy towards peers and perceptions of peer support. The longitudinal survey data were collected from Finnish upper secondary students at three time points. The data were analysed with a cross-lagged panel model. The results showed that both the levels of empathy skills and peer support remained stable over time. Furthermore, peer support was related to enhanced affective empathy skills across time points, while the relationship between peer support and cognitive empathy was less consistent over time. Furthermore, affective empathy skills in the beginning of the studying at upper secondary school were positively related to perceptions of peer support in the middle of the studying. The findings imply that the development of affective empathy and peer support are interrelated, but cognitive empathy develops primarily independently.

The role of coordination and commitment in productive remote collaborative problem solving in dyads

Johanna Pöysä-Tarhonen¹ & Nafisa Awwal²
¹University of Jyväskylä, ²University of Melbourne

This study investigates how explicit and implicit commitments come together in productive collaborative problem solving (CPS) processes in remote dyadic interactions in different timescales, ranging from fast, lower-level coordination of joint actions (i.e., second-to-second) to mid-range timescale of collaborative processes (i.e., minutes to hours). The study utilises objective and subjective process-tracing data, combining group and individual levels of qualitative analysis on logfiles (including i.e., chat and actions), combined with the participants' subjective interpretations of these processes, gathered via cued retrospective interviews. Through two contrasting cases, the results revealed how explicit commitments were interrelated with efficient coordination of joint actions during CPS. Coordinated, well-communicated problem-solving trails, in turn, resulted in positive outcomes regarding the problem-solution. If commitments can reduce uncertainty of the partner's actions, required in efficient coordination, to focus on the "anatomy" of commitments, be they explicit or implicit, can provide us with a better understanding of what may (dis)favour productive CPS to take place in this context. are interrelated, but cognitive empathy develops primarily independently.

6D: DIALOGUE, DIAGNOSTIC PRACTICES AND CONTRADICTIONS

Room: Aula 1, 14 45 - 16 15

Chair: Tjitske de Groot (Utrecht University)

Specialised dialogic teaching to facilitate autistic students' participation in class activities

Ana Laura Trigo Clapes

National Autonomous University of Mexico

Due to the current interest in responding to student diversity in schools and the rise in the placement of autistic students in mainstream classrooms, this research developed teaching strategies that support autistic students' participation in class discussions based on dialogic pedagogies and students' communicative characteristics. Autistic students often struggle in mainstream classrooms, experiencing social, sensory, and understanding difficulties that hinder their participation. This research suggests these difficulties reflect the mismatches between schools' expectations and practices and students' characteristics. As the neurodiversity paradigm recognises, autistic individuals display different forms of communication, thinking and perceiving. Accordingly, using a design-based approach, this multiple-case study investigated how autistic students engage in class discussion and if and how dialogic teaching can support their participation. Dialogic teaching provides explicit class goals, communication rules and instructions, and continuous support. However, current dialogic practices have not been adapted to neurodiverse cognition and communication. In this research, a set of teaching strategies was designed, tested and refined iteratively, drawing on empirically tested dialogic strategies and evidence-based practices for autistic students, collaborating over 4-6 months

with three primary school teachers in England who trialled the strategies in their classrooms (class discussions were videoed and analysed and interviews were conducted), and designing and implementing an online course that introduced the strategies to teachers to obtain their feedback. Findings showed that dialogic teaching strategies can support autistic students' participation in dialogue when discussions are explicit, consider students' characteristics, and permit different forms of participation.

Circular reasoning in diagnostic practices: How Educational Psychologists evaluate special needs

Thyge Tegtmejer¹ & Roger Saljo²

¹VIVE - The Danish Centre for Social Science Research, ²University of Gothenburg

The main focus of this paper is analysing how Educational Psychologists (EPs) describe and categorize the special needs of children in school. In many countries, neuropsychiatric categories are directly linked to the provision of support. However, in the so-called Scandinavian welfare system with a comprehensive school that should cater to the needs of all children, decisions on placement in special education should be taken on the basis of a professional assessment and evaluation - no matter if the child has a diagnosis or not. The analyses of authentic reports by EPs show that in spite of this ideal, neuropsychiatric categories play a central role at three levels: a) they are used as a point of departure for the assessment, b) they are linked to the remedies suggested and c) they are present through the testing procedures. It is noted that little or no attention is paid to the learning environment which generates the problems reported. Continuing the long tradition of locating the problems inside the child relieves schools of the burden of modifying their instructional

practices in societal contexts characterized by diversity in children's backgrounds and abilities to participate.

Beyond labels: Working out contradictions in Swedish for immigrants (SFI) education

Dimitrios Papadopoulos, Karin Lumsden Wass, Monica Reichenberg & Gun-Britt Wärvik
University of Gothenburg

Adult students inscribed in the language education of Swedish for immigrants (SFI) are often considered as the object of initiatives and measures related to Swedish education-, labour market-, and integration policy. Societal actors – such as the Public Employment Service, social services, and labour market stakeholders – establish connections with SFI and set their own agendas regarding students' participation in a plethora of contexts to facilitate their transition from education to other spheres of public life. However, such transitions are not always smooth, particularly for students with little – or no – previous education, as the involved actors' agendas may pursue a wide range of goals, often contradictory in scope. The employment of categories to include SFI students in the different actors' institutional practices (e.g., as students exposed to risk, asylum seeking individuals, or jobseekers) often entails the exclusion from activities which students themselves may deem rather essential and relevant. In the present study, we use cultural-historical activity theory (CHAT) to problematise the engagement of adult students in SFI education in relation to other actors' categorising practices for inclusion in – and thereby, exclusion from – certain activities. By analysing qualitative interviews with 45 SFI students, preliminary results indicate the emergence of contradictions between students' participation and the involved actors' inclusion

categorising practices. It is argued that the working out of such contradictions requires the active cooperation of all involved actors, otherwise consequences of unresolved issues risk the emergence of societal challenges, such as increased student drop-out, high unemployment rates, and social polarisation.



8A: LEARNING AND SUSTAINABILITY

Room: Aula C, 09 00 - 10 30

Chair: Jelena Radišić (University of Oslo)

Learning climate change deliberating with peers: effect on sustainable citizenship

Antonia Larrain¹, Paulina Freire², Ana Andaur², Hernán Cofré³, Maria Teresa Rojas¹, Claudia Vergara¹, Andoni Arenas³ & Marisol Gómez¹

¹Universidad Alberto Hurtado, ²Pontificia Universidad Católica de Chile, ³Pontificia Universidad católica de Valparaíso

The question of sustainability in general is central to a contemporaneous notion of democracy, that is, whether present generations are able to deal with global crisis without risking the living conditions of future generations. This involves what we call sustainable citizenship, or the active participation and engagement with the exercising of rights in a field of plural interests, often contradictory and in conflict, in a way that allows needs to be addressed. However, to date this idea of citizenship has not been empirically tested. The aim of this paper is to report a study that explored the relation between deliberative peer interactions around climate change and climate change knowledge and attitudes, and citizenship dispositions. We adapted two questionnaires: one to assess knowledge and attitudes toward climate change and other to assess political and civic knowledge and skills. 317 students (98 female) participated in the study. SEM models show a direct effect of classroom dialogue on deliberative dispositions which in turn has a direct effect on climate change knowledge

and political self-efficacy, and on all the dependent variables (willingness to mitigate climate change, attitudes towards human rights of immigrants and expected future participation) except for justification of authoritarianism. We also found an indirect effect of classroom climate on all the dependent variables except for justification of authoritarianism via deliberative dispositions, which has not been reported so far in the literature.

Sustainability Education: Photovoice and storytelling as tools for dialogue

Alessio Surian & Diego Posada
University of Padova

This study investigates how schools can foster sustainable attitudes and behaviours among students aged 11-15 through a multiple case study of “sustainable” public schools in Italy, Uruguay, and Argentina. The research is grounded in the concepts of ecopedagogy (Freire, 1992; Renshaw, 2021) and dialogical education (Meijers and Hermans, 2018) and emphasises the interconnectedness of human societies and their natural environment with critical thinking and reflexivity in learning processes.

In this study we have adopted a mixed-methods approach that includes a survey, workshops, observations and interviews. For the purpose of this paper, we analyse the workshop data, namely students photos and stories regarding sustainability and their futures. Preliminary findings have indicated the central role of nature in students’ sustainability narratives, significant variation in political engagement across different contexts, and the presence of eco-anxiety among participants.

These insights highlight the need, and complexity, of integrating ecopedagogical and dialogical approaches in educational practices in order to offer students scaffolding in terms of perspectives and skills to navigate -and address- the socio-ecological challenges. This study con-

tributes to the growing discourse on the role of education in promoting student socio-political agency and advocates for a holistic approach that fosters transformative action towards equitable and sustainable futures.

Enhancing Scientific Literacy for Sustainable Development within Communities of Dialogic Inquiry

Sylvia Rojas-Drummond, Paulina Rodríguez, Rocio Ivonne Hernández Cruz, Ana Luisa Rubio Jimenez, Sergio Iván Ancona Martínez & Hugh Michael Drummond Durey
National Autonomous University of Mexico

We report results from an interdisciplinary project that creates ‘Communities of Dialogic Inquiry’ in primary education. Through the educational programme ‘Inquire,’ these communities foster socioscientific practices centred around ‘Dialogic Inquiry’ in children. These practices involve investigating, creating and applying knowledge on socio-ecological phenomena concerning sustainable development. To ensure competent participation in such practices, we promote core abilities in children, including collaborative problem-solving, multiliteracies and learning-to-learn. In this paper, we focus on enhancing scientific literacy.

The study analysed the appropriation of knowledge of socio-ecological phenomena and scientific literacy by primary school Mexican children participating in Inquire, compared with equivalent control peers. We administered a battery of tests to 75 children at the beginning and end of the school year. Experimental children participated in Inquire in 24 weekly sessions between tests, while control children followed their regular classroom activities. Inquire promoted expert-novice and peer interactions centred around Dialogic Inquiry while children conducted collaborative research projects on sustain-

able development. Through Dialogic Inquiry, participants encourage the encounter of diverse ‘voices and minds’ to pose and respond to queries, generate and apply solutions to problems, and think together by expressing, contrasting, critiquing, challenging, and negotiating ideas supported by argumentation and evidence (Rojas-Drummond et al., in preparation).

Results showed that, compared with control peers, children participating in Inquire achieved significantly better in tests assessing knowledge about socio-ecological phenomena and scientific literacy. In addition, Inquire children exhibited increased abilities to conduct collaborative research projects and disseminate their results. We discuss the study’s theoretical, methodological, and practical implications.



8B: LEARNING OUTSIDE USUAL SETTINGS

Room: Aula Trizio, 09 00 - 10 30

Chair: Lotte Henrichs (Utrecht University)

Making simulators work: Operator and facilitator interventions to support healthcare training

Roger Saljo¹, Astrid Camilla Wiig²

¹University of Gothenburg, ²University of South-Eastern Norway

The background of this study is an interest in simulations in healthcare training, and especially in the role of operators and facilitators staging the activities. Simulations rely on pre-designed scenarios outlining a specific healthcare intervention which the students have to engage in to learn professionally relevant know-how. Yet, a simulation is a dynamic social practice, which the scenario sets in motion. The instructional relevance of the activities simulated depends on occasioned interventions by operators/facilitators continuously responding to student initiatives, misunderstandings and problem-solving activities as the simulation unfolds. The study builds on interaction analysis of 24 video-documented (12h) conversations by operators and facilitators at a fully equipped simulator centre with three furnished clinical rooms for intensive care, each equipped with an advanced computerized mannequin as patient. The article illustrates the nature of interventions which the operators/facilitators engage in in this complex work of monitoring and supporting student learning. The interventions range from considering in situ how and when to intervene with triggers, evaluating student performance, filling in missing information, manipulating the technical equipment, and noticing what to bring up in the debriefing sessions. It is argued that the professional roles of operators and facilitators require

interdisciplinary skills specific to simulating. These skills range from clinical skills of nursing, via a capacity to analyse the relevance of actions observed to the learning goals, to technical skills of managing the equipment. The study demonstrates how sophisticated technologies create new professional skills necessary to exploit the learning potentials of advanced forms of simulations.

Through the Teacher's Gaze: Grammar, Legitimacy, and Ideology in Alternative Schools During Covid-19

Ziv Goldberg & Gideon Dishon
Ben-Gurion University

The Covid-19 outbreak disrupted the prevailing routines of schooling and prompted a re-evaluation of schools' aims and practices. Existing research has mainly focused on the challenges faced by public schools. This study aims to broaden these inquiries and examine how alternative schools coped with the crisis, with an emphasis on teachers' perspective.

Our study investigated three streams of alternative schools: democratic education, free schools, and waldorf education. These schools share several characteristics that theoretically allow them to creatively respond to the crisis: high levels of autonomy, distinct ideology and pedagogy, and a cohesive community.

To analyze processes of change and stability, we rely on the theoretical framework of the grammar of schooling: a conceptualization of the basic working methods organizing public schools, created to explain their stability and resistance to change despite internal and external pressures. We propose considering the school grammar not only as a foundation preserving the school but also as a theoretical lens through which to conceptualize deviations from the school's familiar structure.

Based on thematic analysis of semi-structured in-depth interviews with 35 educators from these schools, this study examined teachers' perceptions of their changing role during the crisis, their sources of legitimacy, and how their educational ideological mediated their experiences. We found that the crisis required reconstruction of the meaning of schooling through the negotiation of the school's grammar. As the school grammar upholds a sense of community cohesion, this reconstruction required complex legitimation processes mediated by adaptation and interpretation of the school's ideology.

8C: ENGAGEMENT AND LEARNING ACROSS MODES

Room: Aula A, 09 00 - 10 30

Chair: Johanna Pöysä-Tarhonen (University of Jyväskylä)

Learning about Anatomy across Virtual and Real Bodies

Hans Christian Arnseth¹, Kenneth Silseth¹, Morgane Domanchin¹ & Rolf Steier²

¹University of Oslo, ²Oslo Metropolitan University

We analyse how students in upper secondary education collaboratively make meaning of anatomy concepts during engagement with dynamic 3D representations in science education. Research in this area has shown that 3D representations can improve students' understanding of complex concepts and their ability to reason and solve problems (Wu & Shah, 2004). However, few studies have investigated how students make meaning of anatomy concepts across representations of bodies in digital artifacts and real bodies. We approach such collaborative activity with digital artifacts as a form of distributed spatial, embodied and multimodal sense making, and explore what characterizes students' meaning making across real and virtual bodies and what are the implications for learning about the body. The data are drawn from a design-based research project, where students learn about anatomy by engaging in collaborative activity involving the use of an anatomy app on a tablet. The findings show that the student groups were sifting between seeing the body as a biomechanical system on one hand and as something more fragile, vulnerable, and a site of humor on the other. The students also moved between seeing the model from a third person perspective and their own bodies from a first-person perspective. The different perspectives allowed for different optics, and by



the same token, for different ways of making sense of the human body. We found that it was precisely the interleaving between the real and the virtual body that enabled a more comprehensive conceptual understanding of the body to emerge.

Student engagement in interdisciplinary work

Kari Anne Rødnes
University of Oslo

Although schools have long held a prominent role in preparing students for democratic participation, there are many and varied understandings of what democracy education and democratic competence are. In the new Norwegian curriculum, the interdisciplinary topic of Democracy and Citizenship is to be incorporated across all school subjects and levels. These intertwined concepts, addressing societal challenges, are highly complex, and, moreover, interdisciplinary work such as this poses additional challenges in terms of subject integration and cohesion.

To gain insight into students' perspectives of working interdisciplinarily, this study follows a 10th grade class participating in a teaching unit addressing Democracy and Citizenship, in which they investigated topics such as human rights and their violation, misinformation, social inequality and digital abuse. The students wrote about and discussed these themes in various ways, they watched films, played games and read the news. The students' conceptions are investigated through interviews, video recordings and students' products, with the aim of understanding what topics and activities students found most meaningful and how they engaged in and talked about them.

Our findings show that the interdisciplinary classroom work engaged the students through its variation in topics and activities, and the different ways of collaborating and expressing

opinions. Such variety could amplify challenges of cohesion and subject integration. However, it became clear that in this case, the diversity was essential because the students were thereby provided with ample opportunity to engage, and thus to latch on to the learning work, tapping into essential aspects of democratic competence.

Students' engagement in authentic research projects about sustainable development

Anja Amundrud & Ole Smørdal
University of Oslo

Although schools have long held a prominent role in preparing students for democratic participation, there are many and varied understandings of what democracy education and democratic competence are. In the new Norwegian curriculum, the interdisciplinary topic of Democracy and Citizenship is to be incorporated across all school subjects and levels. These intertwined concepts, addressing societal challenges, are highly complex, and, moreover, interdisciplinary work such as this poses additional challenges in terms of subject integration and cohesion. To gain insight into students' perspectives of working interdisciplinarily, this study follows a 10th grade class participating in a teaching unit addressing Democracy and Citizenship, in which they investigated topics such as human rights and their violation, misinformation, social inequality and digital abuse. The students wrote about and discussed these themes in various ways, they watched films, played games and read the news. The students' conceptions are investigated through interviews, video recordings and students' products, with the aim of understanding what topics and activities students found most meaningful and how they engaged in and talked about them. Our findings show that the interdisciplinary classroom work engaged

the students through its variation in topics and activities, and the different ways of collaborating and expressing

FRIDAY, SEPTEMBER 13TH

**9B: EDUCATIONAL USE OF AI
AND VR**

Room: Aula Trizio, 11 00 - 12 30

Chair: Jean-Luc Patry (Paris-Lodron University Salzburg)

**Co-constructing an interdisciplinary
VR learning activity in upper
secondary education**

Morgane Domanchin¹, Hans Christian Arnseth¹,
Kenneth Silseth¹ & Rolf Steier²

¹University of Oslo, ²Oslo Metropolitan
University

This paper examines a teacher-researcher collaboration in designing an interdisciplinary learning activity that integrates Virtual Reality (VR) into upper secondary education. This project involved educators, students, and developers in creating an immersive experience centered on Health and Life skills, which has given interest in Norway. Emphasizing the co-construction process emerging from the co-design process, we focus on the way (1) interdisciplinarity, (2) the selection of the “body” as a conceptual learning goal and (3) the choice of a VR application provided possibilities and constrained the co-design process. The interplay of these dimensions is examined to understand their collective impact on co-construction. The study focuses on a VR documentary film “Traveling While Black” (TWB) that exposed 30 students aged 16-17 years old to narratives of social exclusion and discrimination. The data consists of video recordings of workshops, and additional documents (shared documents, notes) to illustrate the design phases of the activity from conception to classroom adaptation. The study underlines the importance of ‘the body’ as a central theme fostering



interdisciplinarity. Through teacher workshops, the body was collectively examined from both biomechanical and phenomenological perspectives, sparking in-depth subject-specific discussions. The integration of VR technology played a significant role in this collaborative approach, encouraging interactive learning among participants while acknowledging the technology's constraints. These findings offer valuable methodological insights for the educational community regarding the integration of immersive technological tools in instructional design. It sets lights on the resources (human, digital and material) one needs to consider when designing interdisciplinary immersive learning activities.

Seeing Generative AI Through University Policies and Guidelines: Is there Coherence?

Nina Bonderup Dohn & Zhiru Sun
University of Southern Denmark

This research explores academic policies and guidelines concerning the educational use of Generative AI technologies, such as ChatGPT, in universities in the USA and Denmark. Drawing upon a theoretical framework that distinguishes between cognitive individualist and sociocultural distributed cognition views of skill, the study investigates whether policy documents reflect conflicting views on AI-mediated skills and, if so, what resulting implicit competence demands this poses for students. Utilizing an aspect-based sentiment analysis methodology, we examine sentiments expressed in university policies and guidelines, focusing on key aspects including “Generative AI,” “assessment,” “teaching,” and “students.” Our findings reveal a generally favorable attitude towards Generative AI technology in university policies, with slight reservations regarding its application in assessment and student-related contexts. Despite these reservations, sentiment towards its

use in teaching appears neutral. No significant differences in aspect sentiments were observed between American and Danish universities, suggesting a consistent attitude towards Generative AI adoption regardless of geographical boundaries. Further qualitative analysis highlights divergent policy orientations between the two countries: American universities prioritize Generative AI in assessment while expressing concerns about data privacy and misinformation, whereas Danish universities address a broader range of themes such as exam integrity and information sharing without a specific emphasis.



9C: ENGAGEMENT AND PRODUCTIVE DIALOGUE

Room: Aula C, 11 00 - 12 30

Chair: Mayra Mascareño Lara (University of Groningen)

Students' Reading Strategies at Upper Secondary Level for Active Citizenship

Susanne Smithberger¹, Sylvi Vigmo² & Maria Bäcke¹

¹University of Jönköping, ²University of Gothenburg

The curriculum for Swedish in upper secondary school mentions “reading strategies” only in relation to the production of text types to master, not in terms of reading comprehension, which traditionally has been viewed as irrelevant at this level. However, upper secondary teachers highlight the need for such strategies as the concepts of doing learning, and learning equity, affect students' future opportunities in becoming citizens (Olson, Fejes, Dahlström, Nicoll, 2015). We argue that there is something fragile when a democracy relies on its citizens' abilities to make well-founded decisions but fails to create a curriculum that supports active citizenship. Only students already proficient in advanced reading practices will succeed, as the upper secondary curriculum appears to rely on earlier education levels' learning outcomes. The lack of progression in reading comprehension strategies suggests that reading skills are pushed to higher education levels. A survey on reading strategies at Swedish upper secondary level (Bäcke & Vigmo, forthcoming) generated 712 responses among 1,500 students. In addition, six follow-up focus group interviews showed that students develop reading strategies for active citizenship outside rather than inside school.

Reading comprehension and literacy are associated with power but also with independence

and democracy. How do we address the lack of reading comprehension strategies if relevant learning outcomes are lacking in the curriculum? In this proposal, our aim is to make visible the relationship and interaction between the lack of reading comprehension training for upper secondary students and how to learn to think critically for active citizenship.

Making Learning Outcomes Work as a Context for Student Engagement

Christine Stenersen

University of South-Eastern Norway

This paper focuses on student engagement framed within a learning outcomes-oriented education system. Engagement describes the quality of student involvement in an activity or learning context (Fredricks, 2022). Both research and policy emphasise the critical role of student engagement for overall school success, yet a concerning trend of declining student engagement can be seen internationally. Theoretically, this study draws on a combination of frame factors and Goffman's frame perspectives (Persson, 2014) to analyse dynamics of student engagement within the classroom. This perspective illustrates how students in social interactions frame classroom situations under the influence of external frame factors such as education policies focusing on measuring individual students learning outcomes. The study draws on interaction analysis of video data from six lower secondary classrooms (N= 7 hours and 39 minutes), following authentic teaching and learning trajectories, encompassing whole class teaching, independent student work in small groups, and final assessments. Two key questions are examined: 1) How is student engagement framed within a learning outcomes-oriented education system? 2) Furthermore, what characterises the engagement of students in classroom activities within this frame? The analysis

display how contemporary education policies activates a range of curricular goals in classroom activities, leading to complexity. Further, various modes of student engagement become visible as strategies to approach the complexity in teaching and learning processes. The study also contributes with knowledge on how policy intent plays out in practice when the content is negotiated in interactions between students and teachers and within student groups.

Off Task, On Talk: A Discourse Genre Perspective on Barriers to Productive Dialogue in the Classroom

Ofri Wagner Lebel & Gideon Dishon
Ben Gurion University

Peer classroom Dialogue is widely upheld in the literature as an educational ideal with immense promise, yet empirical evidence shows it is seldom productively enacted in classrooms. Accordingly, research has explored various challenges and offered models that promote productive dialogue in student group work. In this paper, we position dialogue not as an unrealized ideal, but rather examine the very expectation for dialogue itself, adopting a sociocultural perspective of talk as a site where participants navigate diverse goals and assumptions.

Drawing on discourse genres theory and its analytical application in linguistic ethnography, we analyze a single small group discussion exhibiting an unusual shift towards dialogic interaction. Adopting a genre lens, we examine how students navigate expectations and conventions within the “group discussion” frame.

Analysis reveals three distinct discourse genres emerging. The first two are being employed alternately (labeled “School-Talk” and “Trash-Talk”) and remain inaccessible to some participants. However, the third genre that emerges unexpectedly (termed “Real-Talk”) turns out to be accessible to all. Moreover, this spontane-

ously arising “off-task” Real-Talk exhibits hallmarks of dialogic talk – questioning, challenging, and building on each other’s ideas – unlike the “on-task” School-Talk.

These findings raise some theoretical and methodological issues for further research. First, framing a possible barrier to dialogic learning as lacking an accessible classroom discourse genre through which to engage. Second, the value of including off-task peer talk in the dataset of analysis in order to reveal complex social positioning and hybrid dialogic spaces.



10B: CHANGING PERSPECTIVE AND POTENTIAL FOR CHANGE

Room: Aula C, 14 45 - 16 15

Chair: Helene Uppin (Tallinn University)

Emotional styles and teaching methodologies: a new perspective of burnout prevention for teachers

Pietro Crescenzo¹, Giuseppe Ritella² & Maria Beatrice Ligorio¹

¹University of Bari, ²University of Campania
Luigi Vanvitelli

Emotions play a fundamental role in the teaching profession, often prompted by radical transformations such as those that have occurred in recent years – for instance, forced distant teaching. How teachers adapt to methodological and social changes from an emotional perspective can be analyzed using the construct of emotional style. Furthermore, exposure to professional stress carries the risk of developing Burnout Syndrome (BOS) characterized by three dimensions: Emotional Exhaustion, Depersonalization and Personal Accomplishment. This work aims to analyze the relationship, still little investigated, between teaching practices (mediated and non-mediated), emotional styles and BOS, comparing special education teachers and subject teachers. A survey was administered to a convenience sample of 379 Italian teachers: 1) Personal information Questionnaire; 2) Questionnaire on teaching methodologies; 3) Emotional Style Questionnaire Italian Version; 4) Maslach Burnout Inventory Educator Survey – Italian Version.

The comparison between groups showed that special education teachers obtain the lowest

Personal Accomplishment scores while subject teachers use teaching methodologies that involve student involvement more.

Furthermore, for special education teachers the only emotional styles predicts an higher Personal Accomplishment; for subject teachers also teaching methodologies play a role in predicting Personal Accomplishment.

These results suggest the importance of exploring the role of emotional training for the support teachers to better cope with the challenges of inclusion, also by increasing the use of teaching methodologies aimed at improving students' involvement. This research contributes to enrich educational theory which focus on emotional management and wellbeing of teachers.

Teacher Learning about Interactions with Parents: The Development of Taking the Parent's Perspective

Tal Meltz, Dana Vedder-Weiss & Gideon Dishon
Ben-Gurion University

This discourse analysis study explored the change in social perspective taking (SPT) in teachers' discourse in a 30-hour professional development (PD) program aimed at developing teachers' ability to manage conflicts with parents, using clinical simulation. More specifically, we explored the change in SPT following simulations of parent-teacher interaction, in terms of SPT's rate and level, its positivity, specificity, and agency. We analyzed the discourse in the whole group meetings: four pre-simulation and one post-simulation, identifying parents-related utterances and coding them for SPT characteristics. The findings show an increase in desirable SPT characteristics, including positive SPT, specific SPT, and agentic SPT. The results indicate that an intentionally designed PD, based on clinical simulations, could develop teachers' tendency to take the parent's perspective in a positive, specific, and agentic way.

Translanguaging, migration, and potential for change: A systematic review

Mirona Moraru¹, Arthur Bakker¹, Sanne Akkerman¹, Linda Zenger¹ Jantien Smit² & Elma Blom¹

¹Utrecht University, ²HU University of Applied Sciences Utrecht

This presentation introduces the results of a systematic review which examines the potential for change involved in translanguaging when it is used as a pedagogical approach for multilingual children with a migrant background engaged in content learning. A pedagogy of translanguaging involves encouraging the use of children's home languages alongside the mainstream language; as such, it is claimed to lead to change by fostering learning, inclusion, and equity. This systematic review followed the PRISMA guidelines for identifying and selecting publications and it included 94 publications. To shed light on the results, we employ a boundary-work lens, following the work of scholars such as Akkerman, Bakker, Gieryn, and Thomson Klein. Boundary work is understood here as encompassing the ongoing efforts involved in boundary creation, maintenance, and crossing, as well as the continuity and discontinuity in action and interaction that such processes involve. The results of this review highlight that translanguaging involves a promising potential for change, enabling boundary crossing and establishing continuity across learning settings for multilingual children. Such continuity is materialized by supporting content learning, playing a strong-socioemotional role, and a disruption of oppressive power relations. However, the results highlight that this continuity comes embedded in an interplay with new boundaries and discontinuities for both educators and multilingual children. It is by paying attention to this dynamic interplay that we can get nuanced insights into the consequences of

decisions taken at policy, institutional, and educator level.



10C: SOCIETAL CHANGES AND PARTICIPATION

Room: Aula Trizio, 14 45 - 16 15

Chair: Larike Bronkhorst (Utrecht University)

Students' meaningmaking of societal challenges in interdisciplinary instructional settings

Anniken Furberg, Kenneth Silseth, Kari Anne Rødnes & Ingvill Rasmussen
University of Oslo

In educational policy, the importance of developing learning designs that enhance students' competencies to address societal challenges has been emphasized. The complex nature of societal challenges, such as climate change, threats to democracy, mental health, and equity, requires interdisciplinary pedagogies that introduce students to concepts, perspectives, and procedures across multiple subjects. Research on interdisciplinary teaching and learning finds positive impacts of interdisciplinary pedagogies, such as enhanced student and teacher motivation and increased learning outcomes. However, studies also report that teachers experience interdisciplinary teaching as challenging. Although the existing knowledge provided by these studies are highly relevant, there are few ethnographic classroom studies examining students' meaningmaking processes, including the resources they make use of and knowledge artifacts they produce in interdisciplinary learning settings. The current study adds to this body of research taking a sociocultural approach on students' meaningmaking of societal challenges in interdisciplinary teaching designs. We draw on data from three case studies, where we followed secondary school students and teachers in interdisciplinary school projects. Findings show that the collaborative activities created dialogic spaces, both in small group and whole-class

settings, where students' everyday experiences, and subjects' concepts, perspectives, and procedures interlaced to become mediating resources in their meaningmaking of societal challenges. Furthermore, the findings also show that the student products became powerful artifacts in the sense that they threaded multiple learning activities, learning settings, student resources, and the involved subjects' scientific concepts together. As such, the student products served a purpose of creating cohesion in the interdisciplinary teaching designs.

Teenage researchers: participatory ethnography on hybrid sociality with 8-9 grade students

Marie Nilsberth¹ & Fritjof Sahlström²
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In the context of Nordic societies' rapid transformations, basic education is crucial for fostering an inclusive society. This project examines the evolution of the 'One school for all' principle in four Nordic secondary schools from the 1970s to today, highlighting the shift to hybrid socialities where students blend online and offline lives seamlessly. Our research adopts a participatory approach, integrating students (aged 14-15) through citizen science methods to explore digital technologies' role in their social interactions. By involving students in documenting their digital communication, this study seeks to develop a deeper engagement and a more equal dialogue between researchers and participants, moving beyond traditional video ethnographic methods. Preliminary findings emphasize the continued importance of schools as meeting places despite blurred boundaries between school and home due to digital technologies. The participatory approach also faces challenges, including methodological adjustments to different contexts and the dilemma of balancing research, participant, and educational agendas. Despite these chal-

allenges, involving participants in research promises to bridge the gap between academia and society, though it also raises questions about the potential for socially biased participation. This presentation contributes to the discussion on the complexities and potential pitfalls of participatory research methods in education.

Patterns of dialogic interactions among children solving different tasks

Ana Luisa Rubio Jimenez, Maria Jose Barrera Olmedo, Ana Karen Vázquez Valverde, Carlos Omar Martínez Colín, Ana Laura Trigo Clapes & Sylvia Rojas-Drummond
National Autonomous University of Mexico

This paper is a follow-up to one we presented at EARLI SIG 10, 21 & 25 of 2022, in which we aimed to analyse the situated nature of dialogic interactions. In the previous paper, we compared the communicative patterns of two quartets of 11-year-olds in solving two divergent literacy tasks versus a convergent logical-reasoning task. In the present paper, we expanded our population to include six quartets of 9- to 12-year-olds performing the divergent and convergent tasks. We also extended the analysis to focus on patterns of dialogic interactions rather than only analysing the frequency of dialogic turns. These patterns include the tendencies of certain communicative functions to follow previous utterances, in terms of the chaining of dialogic functions.

Peer conversations were analysed using a compact version of the CAM-UNAM Scheme for Educational Dialogue Analysis (SEDA), which qualifies dialogic interactions systematically and rigorously. We related children's communicative patterns to two interaction styles previously identified as productive for learning, namely 'co-constructive' and 'exploratory'. Results illustrate how children subtly adapted their conversations to the nature of the task at hand. In divergent

tasks, children created meanings together by elaborating, chaining and transforming their own and others' ideas, negotiating perspectives and seeking agreement. This pattern reflects a 'co-constructive' interaction style. In contrast, in the convergent task, children reasoned together, positioned themselves in the dialogue by agreeing or disagreeing with each other's ideas and supported their positions by making their reasoning explicit through arguments and counterarguments. This pattern reflects an 'exploratory' interaction style.





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Bari, 11-13 September 2024

OTHER FORMATS

ROUND TABLE

When politics enter classrooms: Dutch teachers' classroom responses after the 2023 general elections

Lotte Henrichs, Nienke Smit & Bjorn Wansink
Utrecht University

Inspired by Sondel et al (2018), the present study is a conceptual replication of teachers' responses to the landslide victory of a populist politician or party. Immediately following the Dutch democratic election results of November 2023, we invited teachers throughout the Netherlands to fill out the questionnaire made by Sondel et al. 2018. A total number of 281 teachers responded. They describe what emotions they observed in their classrooms and how they responded. This round table will consist of two parts: 1) a brief presentation of the results of the study; 2) Engaging our audience in a discussion about our positionality - stemming from our multi-role jobs as teachers, teacher educators and scientists – and about differences between the original American study and the present study carried out in the European context.

The results will be discussed in terms of teachers' self-efficacy beliefs regarding their pedagogical decisions immediately after elections. We will also address the role of controversial issues in the classroom. Two topics that emerged from the American study by Sondel et al. were also reported by Dutch teachers: 1) pedagogical approaches in terms of attending to students' emotions 2) clarifying civic knowledge about Dutch democracy through instruction and explanation.

During the round table, we welcome the international perspectives on how politics enter class-

rooms. We discuss possible implications for teaching democratic citizenship, for pedagogical approaches to classroom conversations in politically turbulent times and end with possible future directions for the role of educators in a united and resilient Europe.



WORKSHOPS

Co-constructing and envisioning sustainable teaching and learning

Vasiliki Papageorgiou, University of Surrey
Dimitrios Papadopoulos (Chair)

This workshop aims to expand the discourse of what it takes to be a teacher in today's fluid and complex higher education sector. It adopts 'sustainability' as a multidimensional lens and metaphor to conceptualize the desirable characteristics of the teacher and pedagogical practices conducive to responsive educational futures. The workshop will start by introducing an exploratory research project that sought to envision the 'sustainable teacher', drawing insights from early and mid-career university teachers as well as middle leadership staff from various disciplines across two UK universities. Through group activities, participants will collectively envision and define the concept of the 'sustainable teacher' and sustainable teaching practices. The workshop will encourage multiple perspectives and ideas to be voiced and integrated to develop a nuanced understanding of the role of teachers in the contemporary university. It welcomes participation from colleagues across disciplines, countries, roles and levels of experience to contribute and co-construct meaning. Participants will also have the opportunity to explore and reflect on creative approaches to data collection. There is no requirement for participants to have any prior knowledge or background in sustainability. Participants are encouraged to bring a mobile device or laptop for use in small groups to create a shared visual representation. However, materials will also be provided to accommodate participants' preferred forms of expression when creating workshop artefacts.

Facing the polycrisis: Co-creating manifestos for academic integrity

Ramsey Affifi, University of Edinburgh
Giuseppe Ritella, University of Campania Luigi Vanvitelli (Chair)

The world faces multiple social, cultural and ecological crises that interlock to the suffering of many. From research to teaching and service, academic work is in many ways complicit in these crises, -- and yet it could be part of imagining and creating healing alternatives. This is particularly true for academics working in education, who have theoretical and practical capacity -and responsibility- to attend to the various implicit and hidden curricula (Eisner 1979) that suffuse their work. In this workshop, I propose to co-create manifestos with participants which we will attempt 'to live' for the duration of the EARLI conference, aimed at understanding the pedagogical and political role of forming explicit collective intentions, and at initiating collaborative imagining and action motivated to deepen lived values in academic work. The idea of creating a manifesto seems preposterous (Biesta & Säfström 2011): a statement without nuance, dissensus, evolvability, full of dubious exclamation marks -- it flies in the face our academic, critical and postmodern sensibilities. And yet, our very capacity to see 'shades of grey' is perhaps sometimes our Achilles heel, easily co-opted and rendered complicit in harm. This workshop approaches manifesto-writing as an experiment, a form of speculative utopianism, with pragmatic potential despite (or perhaps precisely because of) its seeming impossibility and naivety. By explicitly considering and rewriting the operating rules by which we engage together, the aim is to both more deeply understand the political and pedagogical dimensions of manifesto making, and to initiate concrete relationships and articulations for academic work.

Boundary dialogues: committed to truth and open to change

Elisabeth Angerer¹ & Larike Bronkhorst²

¹University of Edinburgh, ²Utrecht University
Maiki Vanahans, Tallinn University (Chair)

In SIGs 10, 21 and 25 we are committed to addressing polarisation through our research and theorising. In this workshop, we propose to walk our talk and engage in co-constructing meaning across boundaries. Through a structured free-writing exercise, the workshop participants first examine the meanings (messages and values) they embody in their research. They are then matched with a discussion partner based on (potential for) mutual disagreements, and guided into dialogue between their ‘truths’, through a sequence of improv exercises.

The main aim of the workshop is to explore the possibility of remaining both entirely committed to honestly expressing a felt truth, while also being maximally open to a change of mind and heart. As such, this workshop is intentionally provocative, yet ultimately aims at positive, peaceful transformation, inspired by the lives and work of leaders such as Gandhi and Dr. King.

Phenomenological reflections on ‘being the fold’- dialogicality in and beyond times of crisis

Josephine Moate¹ & Eva Vass²

¹University of Jyväskylä, ²Western Sydney University

Arniika Kuusisto, University of Helsinki (Chair)

This workshop emerged from our ongoing discussions around the place and time for dialogicality in educational theory, research and practice. Our independent research trajectories converge around the relational essence of being and becoming - inspired by dialogism and Natural Inclusionality (NI).

As we have come to understand learning and teaching as a dialogic encounter, so we have sought to comprehend the mutual intentionality in encounters – an openness to influence and be influenced. We see this mutual intentionality as coupled with serendipity; the dialogic encounter with the ‘other’ as a meeting “between chance happenings and the prepared mind” (Glaveanu, 2021). Learning as an encounter entails a co-creative journey towards the unknown through meaningful coincidences and ‘ripe moments’ (Vass & Moate, forthcoming). In this framing, boundaries do not isolate one from another but afford mutual inclusivity. They are the source of mutual enrichment (dialogism) and are continuities between distinct bodies (NI). Our explorations of the space in between have become central to our discussion, with imagery of ‘walking the line’ or ‘being the fold’ emerging. The call for this conference prompted important reflexive ponderings in us: What is our trajectory as teacher-educators? Where did we come from and where are we heading? How do we invite serendipity and maintain mutual intentionality in our research endeavours? And how do we (teachers, teacher-educators and researchers) work with the ‘excluded middle’ and fully embody the fold in between (going beyond being

an expert within)? We invite our audience to actively participate in these deliberations.

POSTERS

Session charis: Charlotte Báez (St. Gallen University of Teacher Education) & Özün Keskin (University of Augsburg)

School Principals' Management Style, Teacher Collective Efficacy (CTE)

Rodayna Badir
Al Qasemi Academic college

The study's main aim is to examine the contribution of the school principal's management style, teacher self-efficacy, and personal and professional background to the prediction of perceived stress levels among 321 teachers from Arab schools in Arab-Israeli society. However, the participants were administered self-efficacy and stress questionnaires, a Pearson correlation test and Multiple Regression analyses were used. The results indicated that there was a significant negative relationship between teachers' collective efficacy (CTE) and stress at work. Also, the researcher found that CTE does not serve as a moderator between leadership style and perceptions of stress. Furthermore, the results also revealed that Arab-Israeli teachers prefer the transactional style to achieve their work more than the transformational style.

Teachers' Burnout: An environmental approach to stressors

Sara Torre, Annalisa Ventrella &
Maria Beatrice Ligorio
University of Bari

When stress factors are considered in relation to the education profession, personal resources and hindrances are considered more often



than social and systemic stressors. Considering burnout predictors found in literature, the present study proposes a combination of interpersonal, group and community potential stress factors for teachers. The investigation of the environmental stressors also concerns the evaluation of their impact on teachers' burnout symptoms, such as exhaustion, cynicism, and lower professional efficacy. Our research question is: Which of the systemic and social characteristics of the teaching profession mostly determine burnout in teachers? To answer this question, a sample of Italian teachers (N: 274; Female: 84.67%; years of teaching: 17.99, sd = 10.21) was involved to estimate stress related to 11 stressors, and to answer the MBI-GS. Results demonstrated complex cause-effect combinations, which proved bureaucracy obligations, stressors overlapping, class management and lesson delivery as the most prominent causes for burnout sub-dimensions. Conclusions are drawn about the necessity of an all-around perspective on teachers' stress determinants and further development of this systemic approach to stress.

A Qualitative Synthesis of Warm and Demanding Interpersonal Teacher Behavior in Urban Classrooms

Simone Polderdijk, Lotte Henrichs &
Jan van Tartwijk
Utrecht University

One of the biggest challenges in Dutch education is the alarming teacher shortage. In schools where more students are at risk of educational disadvantage, which is strongly visible in urban contexts, the teacher shortage is even worse. Teacher education institutes need to address the various problems that teachers may be confronted with when teaching in urban classrooms by preparing them for culturally responsive dis-

positions and classroom management strategies. One well researched culturally responsive teaching practice is warm demander pedagogy. The two central dispositions of a warm demander are care and authority and serve the purpose of supporting a culture of achievement for students of color. In this qualitative literature study, we decontextualize the underlying successful mechanisms of the warm demander pedagogy by mapping their interpersonal behavior with the Interpersonal Circle – Teacher (IPC-T) – often used in Dutch teacher education. We found nine empirical case studies of teachers nominated as warm demanders. We coded all articles on a three-point-scale (low, middle, high) on the two dimensions of the IPC-T: Agency and Communion. Agency refers to influence or control, communion to affiliation or friendliness. The results are discussed using two timescales: daily moment-to-moment interactions and teacher-student relationships established over time. Findings illuminated that both timescales are characterized by high levels of agency and communion. But, warm demanders' daily interactions were also frequently coded as low on communion. We conclude that because of the caring relationship, that is the result of cumulative positive interactions, warm demanders can afford to be insistent about students' achievements.

Supporting Learning Engagement in Music Lessons

Heddi Reinsalu¹, Inge Timoštšuk¹ &
Inkeri Ruokonen²
¹Tallinn University, ²University of Turku

The research explores learning engagement in preschool and primary school music education. The study employs a qualitative research perspective, focusing on how teachers understand and support learning engagement in music lessons. The research framework is based on the

theory of learning engagement within the context of Self-Determination Theory. Data collection involved observations of lessons, and Stimulated Recall Interviews (SRI) with music teachers. The study also utilized a snowball sampling technique to reflect the diversity of Estonian professional music teachers. Preliminary results indicate that while teachers recognize and support emotional, behavioral, cognitive, and social engagement in music lessons, they struggle to notice or support students' agentic engagement. This research contributes to the understanding of learning engagement in music education and provides valuable insights for music teachers and education policy makers.



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