TEPE 2020 Virtual Conference

Teacher Education Policy in Europe

May 13-15, 2020
Helsinki, Finland

Sustainability and Ethics in Teacher Education and Education Policy

Conference Book
Welcome to the conference!

The theme of the 14th TEPE conference is *sustainability and ethics in teacher education and education policy*. Through this theme, the TEPE network hopes to explore teacher education, the teaching profession and teacher education policy through explicitly ethics and sustainability-related perspectives. This theme connects with important global developments, trends and discourses, and therefore reflects societal needs. Urgent themes are how teacher education can provide solutions to global learning crises through teachers’ high-quality professional work and by creating sustainable learning opportunities for all learners. Through the conference, we hope to explore what these concepts entail in teacher education and teacher education policy, and how might we make sure that while the ethical and sustainable solutions are called for in all areas of life, also teacher education and related policies acknowledge their responsibility.

Ethics and sustainability can be explored through many perspectives. For instance, we may ask, does teacher education and policy take into account the changing global situation? What are the prerequisites for sustainable teacher education policy? The teaching profession is considered to be an ethical profession, but how does this important aspect manifest itself in teacher education policy, and to what extent do teacher education policy acknowledge and support high standards of ethics? How could education policy support teacher quality and commitment?

In today’s World, we need to be mindful of how resources are used. The concept of sustainable teacher education policy implies a sustained vision and persistent work towards key goals rather than buzz words and short-term goals. What would a sustainable teacher education policy look like? How can it be achieved, and how does prior research inform the quest for sustainable teacher education policy? These, and other related questions will be explored through keynote speeches, parallel thematic sessions, panels, working sessions and poster presentations around three main themes, namely:

- Theme 1. Towards more sustainable education and overcoming global learning crisis: a new challenge for teacher education policy and practice
- Theme 2. Teaching as an ethical profession
- Theme 3. Sustainability in teacher education and teacher education policy

This conference provides opportunities to share research findings in teacher education, relate research to teacher education policies and policy-making, and engage in fruitful and visionary discussion on how to bridge research-based knowledge and policy-making in an effort to create sustainable teacher education where beneficence and justice have a high priority.

In May 13-15, the TEPE 2020 conference is organized in an exceptional time and totally virtually. We have faced the serious COVID-19 and this virus has overrun the whole global world. Universities and schools are closed in most countries. However, we do not want to give up, we still want to be in connection with our friends and colleagues who are working for sustainable teaching profession and teacher education. Our persistent efforts for making high-quality education to all are needed more than ever.

You all are the most welcome to the Virtual TEPE 2020 conference!

*Hannele Niemi*  
*Erika Lofstrom*
### Programme

#### May 13-15, 2020 (Virtual conference)

**Contents:** keynote speeches, presentations and discussions, parallel research collaborative sessions, discussion and networking  
**Participants:** Researchers, teachers  
**Location:** ZOOM sessions  
**Password** for ZOOM links: TEPE2020

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| **Wednesday 13.5.2020** | 12:30 – 15:30 (Finnish time) | Opening of the conference:  
Hannele Niemi, Professor, University of Helsinki  
Erika Löfström, Professor, University of Helsinki  
Johanna Mäkelä, Dean of Faculty of Educational Sciences, University of Helsinki  
Joanna Madalińska-Michalak, Chair of TEPE Board  
12:30 – 13:00

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| **Thursday 14.05.2020** | 10:30 – 15:15 (Finnish time) | Paper presentation and discussion session 1: Group A, B and C  
Group A: https://helsinki.zoom.us/j/69276227894  
Group B: https://helsinki.zoom.us/j/61458403229  
Group C: https://helsinki.zoom.us/j/66676756895  
11:45 – 12:00

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| **Friday 15.05.2020** | 10:30 – 13:45 (Finnish time) | Keynote speech and discussion:  
Eve Eisenschmidt, Professor, Tallinn University  
11:30 – 11:45

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| **Friday 15.05.2020** | 11:45 – 12:45 | Keynote speech and discussion:  
Ritva Reinikka, Professor, Aalto University  
12:45 – 13:45

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| **Friday 15.05.2020** | 13:15 – 14:00 | Lunch Break  
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| **Friday 15.05.2020** | 14:00 – 15:15 | Paper presentation and discussion session 3: Group G, H and I  
Group G: https://helsinki.zoom.us/j/62414515251  
Group H: https://helsinki.zoom.us/j/61820744204  
Group I: https://helsinki.zoom.us/j/69524655592  
16:15 – 17:15

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| **Friday 15.05.2020** | 12:45 – 13:45 | Panel discussion:  
The role and responsibilities of Higher Education and Teacher Education in contributing to solve global learning poverty  
Chaired by Hannele Niemi, Professor, University of Helsinki

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| **Friday 15.05.2020** | 13:45 – 14:00 | Closing: Erika Löfström, Professor, University of Helsinki  
14:00 – 15:00

**ZOOM link:** https://helsinki.zoom.us/j/66576072645
### Groups

**Paper presentation and discussion groups**

(Each presentation is about 10 minutes + 5 minutes for questions and after presentations a final discussion)

**Thursday 14, 10:30 – 11:45 Finnish time (Group A, B, C)**

**Group A: Sustainable practice** (Host and Chair: Vilhelmiina Harju)
The Discussant for group A presentations: Päivi Kousa
ZOOM link: [https://helsinki.zoom.us/j/69276227894](https://helsinki.zoom.us/j/69276227894)

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<td>Piret Oppl, Eve Eisenschmidt and Mihaela Stingu</td>
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<td>II</td>
<td>Newly qualified teachers’ support needs from the perspectives of Finnish new teachers and principals</td>
<td>Vilhelmiina Harju and Hannele Niemi</td>
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<td>II</td>
<td>Fair assessment in inclusive foreign language (teacher) education: The role of fundamental attribution error in diagnostic processes</td>
<td>Joanna Pfingsthorn and Julia Weltgen</td>
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**Group B: Ethical Profession** (Host and Chair: Erika Löfström)
The Discussant for group B presentations: Marco Snoek
ZOOM link: [https://helsinki.zoom.us/j/61458403229](https://helsinki.zoom.us/j/61458403229)

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<td>Lina Lindström, Erika Löfström and Monica Londen</td>
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<td>Evaluation of Teacher Training Program in Terms of 21st Century Skills: A Mixed Method Study</td>
<td>Fisun Bozkurt</td>
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**Group C: Policy for sustainable education** (Host and Chair: Hannele Niemi)
The Discussant for group C presentations: Hannele Niemi
ZOOM link: [https://helsinki.zoom.us/j/66676756895](https://helsinki.zoom.us/j/66676756895)

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<td>Milla Häkkinen, Kalle Juuti, Jari Lavonen and Anni Loukomies</td>
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**Thursday 14, 12:00 – 13:15 Finnish time (Group D, E, F)**

**Group D: Sustainable practice** (Host and Chair: Vilhelmiina Harju)
The Discussant for group D presentations: Lilli-Ann Wolff
ZOOM link: [https://helsinki.zoom.us/j/69166784911](https://helsinki.zoom.us/j/69166784911)

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<td>Niklas Rosenblad, Birgit Schaffar and Erika Löfström</td>
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<td>Mentoring and observation processes for an ethical and sustainable Initial Teacher Education</td>
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**Group E: Ethical Profession** (Host and Chair: Erika Löfström)
The Discussant for group E presentations: Erika Löfström
ZOOM link: [https://helsinki.zoom.us/j/66820823603](https://helsinki.zoom.us/j/66820823603)

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The Discussant for group F presentations: Marco Snoek
ZOOM link: [https://helsinki.zoom.us/j/67854030669](https://helsinki.zoom.us/j/67854030669)

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<td>Hannele Niemi and Päivi Kousa</td>
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**Thursday 14, 14:00 – 15:15 Finnish time (Group G, H, I)**

### Group G: Sustainable practice (Host and Chair: Vilhelmiina Harju)
The Discussant for group G presentations: Kirsi Wallinheimo
ZOOM link: [https://helsinki.zoom.us/j/62414515251](https://helsinki.zoom.us/j/62414515251)

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<td>Jenny Niu and Hannele Niemi</td>
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<td>Digitality in teacher education: Experiences of ethical aspects in using digital technologies</td>
<td>Kirsi Wallinheimo, Ina Juva and Gunilla Holm</td>
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### Group H: Ethical Profession (Host and Chair: Erika Löfström)
The Discussant for group H presentations: Marco Snoek
ZOOM link: [https://helsinki.zoom.us/j/61820744204](https://helsinki.zoom.us/j/61820744204)

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<td>CREATING CHANGE: It takes children to create society, children’s perspectives as a prerequisite for making policy</td>
<td>Signe Juhl-Nørgaard</td>
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### Group I: Policy for sustainable education (Host and Chair: Hannele Niemi)
The Discussant for group I presentations: Hannele Niemi
ZOOM link: [https://helsinki.zoom.us/j/69524655592](https://helsinki.zoom.us/j/69524655592)

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ZOOM link: https://helsinki.zoom.us/j/65154828223

The role and responsibilities of Higher Education and Teacher Education in contributing to solve global learning poverty
Chaired by Hannele Niemi, Professor,
UNESCO Chair on Educational Ecosystems for Equity and Quality of Learning, University of Helsinki

Panel members:

Ritva Reinikka
Professor of Practice at the Helsinki Graduate School of Economics and at Aalto University School of Business. She chairs the Steering Committee of the international Service Delivery Indicators initiative as well as the Delivery Board of Research on Improving Systems of Education (RISE). Dr. Reinikka worked at the World Bank in 1993-2013.

Tuija Turunen
Professor, Dean University of Lapland, Faculty of Education
Leader of UAрctic Thematic Network on Teacher Education for Social Justice and Diversity and UNITWIN/UNESCO Network on Teacher Education for Social Justice and Diversity

Marjo Vesalainen
Senior Ministerial Adviser, PhD, Department for Higher Education and Science Policy, Ministry of Education and Culture

Pavel Zgaga
Professor of Philosophy of Education at the Faculty of Education, University of Ljubljana, Slovenia. He has worked a lot for internalization of higher education and teacher education studies.

Villehmiina Harju
Doctoral Student (submitted a dissertation), a wide experience of digital tools in education, a researcher of new teachers and their competences.
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Group I, 14th of May, Thursday, 14:00 – 15:15 (Finnish Time)

Unpacking the Understanding and Development of Teacher-Researchers in Initial Teacher Education in Kosovo

Fjolla Kaçaniku

A Question of Ethics; Ethical Responsibility in Teacher-Research Policy and Practice

Aimie Brennan

Approaches to Data-Informed Practices in Teacher Teams

Katrin Rääk & Kairit Tammets

A Sustainable Workforce Through Initial Teacher Education (ITE): A New Waste Management Policy

Mark Carver and Paul Adams
Abstracts of the Keynotes

The future of education systems: Initial observations from the process on “Highest performing systems for tomorrow”

*Olli-Pekka Heinonen*, Head of Finnish National Agency for Education

**Abstract**

The COVID19-virus has had a fundamental impact on education systems around the globe. Education is mostly seen as a place, and when schools are closed, education is closed. To take into use distance and on-line teaching and learning possibilities has challenged education systems to a steep learning curve. It has also forced us to face very basic principle questions what education is all about. These are the same questions that the high performing countries in PISA -comparisons together have tried to address to be able to create future-adaptiveness in their systems. The important questions I shortly try to cover are: 1) How the education or learning systems as systems are functioning or should be functioning 2) What is the role of the school 3) what are the future aims of education 4) What are the future ways we can make learning happen. All of these questions are also connected to the teacher identity. I see there is a clear need to evolve the teacher identity to include more strongly than today the aspects of collaboration and shared professional learning aiming at increasing the resilient learning culture in schools. This is also one of the learnings of the pandemic we are experiencing right now.

**I am a teacher educator. What is your superpower? - Educating teachers to make a difference**

*Tuija Turunen*, Professor, University of Lapland

**Abstract**

This presentation will discuss the quality of teacher education in diverse contexts, with a special focus on inclusive practices and social justice as the bases of educational practices. UNITWIN/UNESCO Network on Teacher Education for Social Justice and Diversity approved by UNESCO in November 2017 aims to respond to the specific challenges faced by national education systems, and teacher education in particular, in the sparsely populated Arctic region and the global south. These areas confront similar challenges and mutual learning and cooperation between north and south enhances quality education for all in these areas and beyond. The UNITWIN network emphasizes United Nations’ sustainable development goals; especially the goal number four, quality education. To address the target of not leaving anybody behind in education, the network contributes to the better understanding of the context and the cultural issues in education via engagement with the local communities and especially with the Indigenous populations. It focuses on knowledge exchange around inclusive and effective teaching practices. Qualified and committed teachers and international cooperation for teacher education are the key factors in promoting strong and resilient communities in north and south.
How to multiply teachers: solving a shortage of teachers

Eve Eisenschmidt, Professor, Tallinn University

Abstract
Several countries worldwide face the challenge to attract new generations entering teacher profession. Although Estonia is one of the top-performing countries based on recent PISA results, teachers’ average age is quite high (49 years, OECD average is 44), 54% of teachers in Estonia are aged 50 and above. In addition to continuous improvement and fine-tuning of the existing teacher education programmes, new ways and solutions to tackle the critical teacher shortage should be found. The only way to maintain sustainability in teacher education in contexts where teacher education does not attract sufficient number of candidates, is to be innovative and look for alternative solutions that could attract candidates that otherwise don’t apply to regular teacher education. This involves also conceptualizing new groups of potential candidates. This keynote will address some possible solutions introduced in Estonia to face the challenges regarding unpopularity of teacher profession.

The global learning crisis: Time to focus on quality in learning and teaching

Ritva Reinikka, Professor of Practice
Aalto University School of Business, Helsinki Graduate School of Economics

Abstract
The global education agenda—especially the Millennium Development Goals—has been oriented towards access to schooling. It has been a big success by historical standards. But, by now, it has become clear that the quality of education has not progressed in lockstep with access to schooling. This is also reflected in the United Nations’ Sustainable Development Goals: the SDG-4 focuses on education quality.

Today much of the developing world faces a learning crisis in basic education (primary and lower secondary school). Despite spending years in school, students are not gaining even basic literacy and numeracy. Many cannot not read a single sentence or paragraph. In rural India, for example, nearly three-quarters of students in grade 3 could not solve a two-digit subtraction, and by grade 5, half could still not do so.

As highlighted by the Education Commission, by 2030, half of the world’s children and young people—over 800 million, including about 400 million girls—will not possess basic skills, despite most of them having been to school. The learning crisis thus threatens to divide the world into two: one half where young people have access to a good education system which gives them multiple skills, while the other half enters an education system that fails them completely -- so that they don’t learn even the basics. And behind the learning crisis there is often a teaching crisis.

This presentation examines symptoms and diagnostics of the global learning crisis – as well as explores potential therapeutics for addressing it.
Abstracts of the paper sessions

Group A, 14th of May, Thursday, 10:30 – 11:45 (Finnish time)

Teacher reflective practice as a key for a sustainable and ethic professional development

Macarena Verástegui & Jesús Manso; Universidad Autónoma de Madrid

Abstract

(Introduction) Teacher reflective processes are a very important tool to improve their professional development. When these procedures happen continually and permanently is because reflective practice exists. On the one hand, reflective practice is defined as a professional dynamic of lifelong learning of teaching staff (Perrenoud, 2013; Tan, 2008) and this enables educational practical knowledge development (a teacher knowledge which emerges from pedagogical practice). On the other hand, “Pensadero de maestros” is a training programme for educational centres to build a learning professional community. This programme is based on rigorous practice observation and, after that, a rational discussion about how teachers work in classroom. The five keys of the training programme are: (1) according educational aims, (2) coordinating teaching staff effectively, (3) sharing teaching practice, (4) microteaching, (5) systematizing observation results.

(Method) This submission seeks to determine if teaching training programmes focused on reflective practice promote an ethic and sustainable professional development. For this purpose, it has been made an analysis of participating teachers’ appreciation from 20 “Pensaderos” in ethic and sustainable dimension of professional development.

(Preliminary results) Participating teachers’ assessments about Pensadero programme allow confirming that this kind of continuous training programme is sustainable and successful. Studies like Day (2005) and Perrenoud (2004) maintain this assertion because, on the one hand, it does not need economical resources and, on the other hand, it could be organized in school schedule (Enguita, 2018). Secondly, we can determine that “Pensadero” involves an ethical commitment because it promotes teaching staff involved in improvement and innovation processes of educational practice and students learning (Úbeda, 2018). In this sense, teachers who share with other colleagues their practice, reflect on it and collect pedagogical conclusions, can link to meaning and purpose of their profession easily (Day, 2005; Hattie, 2009; Úbeda y Verástegui, 2015).

(Conclusions) “Pensadero” programme builds a practical knowledge that allow re-thinking teacher education in a sustainable and ethic way. Firstly, we consider that it’s sustainable because it only needs professional expertise and collaboration among teachers. Secondly, we think that is an ethic proposal because it is linking with school and pupils’ needs. An ethic linking is critical to support pedagogical improvement processes in schools that require teacher effort and commitment. This way, schools can organize their education projects around teaching practice and pupils’ needs.

References

Keywords: teacher reflective practice as a key for a sustainable and ethic professional development

Seeking sustainable ways for school development: the views of teachers and principals regarding teacher leadership

Piret Oppi, Eve Eisenschmidt and Mihaela Stingu; Tallinn University

Abstract
This study attempts to explore the understanding and actualization of teacher leadership among the teachers and principals taking part of a school development programme (Future School). Teacher leadership is considered as a powerful concept to provide teachers a chance to contribute to school development by providing professional development and collaborative learning among their colleagues. In this study, teacher leadership is defined as a process through which teachers, through formal and informal approaches, take initiatives outside their classroom to improve teaching and learning practices, both at individual and collective level (school, system) in order to enhance student learning.

The aim of this study is to explore the understanding of teacher leadership, in terms of the characteristics and the activities of a teacher leader, impact of teacher leadership in and outside the classroom, and the conditions for teacher leadership. The qualitative interview data was collected in five Estonian schools from 16 teachers and five principals and an abductive approach was applied to analyse the data. Four themes of analysis emerged: the personal characteristics, leadership activities, the impact of and the conditions for teacher leadership.

Regarding the characteristics, the interviewees described a teacher leader as a committed colleague with vision and they have a high need for self-realization and self-efficacy. The interviewees also emphasized that teacher leaders are empathic and usually intrinsically motivated. The activities of a teacher leader were described as formal and informal positions, including being a mentor or leading the subject departments, leading projects and organizing school events. Teacher leadership was seen having an impact on five main groups: teachers themselves, their colleagues, school as an organization, beyond school level and utmost important on students.

Regarding the conditions, three main categories emerged: conditions related to the school management team, school climate and the structural factors and Teachers’ self-related conditions. Although the results revealed that the teachers and principals have a rather limited understanding of teacher leadership. This is relatively alarming for two reasons. First, the principals do not consider the potential of all teachers and fail to realize how important it is to pay attention to (and fulfill) the conditions for teacher leadership (e.g. time to be set aside for collaboration, different work arrangements) in order to create an environment that supports the implementation of TL.

Second, a limited understanding of what teacher leadership comprises does not allow teachers and principals to understand the full impact and benefits of TL. Therefore, we argue that the concept of
teacher leadership should be introduced already in initial teacher education and it is an important part of continuing professional development. Moreover, not only teachers, but principals also need to develop their competencies as they play an influential role in creating a school environment that supports teacher leaders to take the initiative.

The limitations of the study are: while the interview data allowed us to examine the understanding and conditions for teacher leadership, more sources of data, such as observations of teacher leadership and shared leadership practices could have been collected to illustrate the conditions and implementations in real school context. Second, as the participating schools are more motivated to implement changes in different aspects of school culture (leadership practices included), therefore the understanding might differ compared to other schools.

**Keywords:** teacher leadership, shared leadership, professional development, school development

Newly qualified teachers’ support needs from the perspectives of Finnish new teachers and principals

Vilhelmiina Harju and Hannele Niemi; University of Helsinki

**Abstract**

Teachers’ professional development is a career-long process that requires continuous self-reflection and adaptation to changing working conditions. Supporting students’ learning is the ultimate goal of the work, but there are also lots of work tasks and responsibilities ‘outside the classroom’. The teaching profession is highly autonomous and requires teachers to work independently, although, at the same time, working in schools is fundamentally social and requires collaboration with different partners.

Initial teacher education cannot fully prepare new teachers for the challenges they face in the teaching profession, and much of the professional competence is acquired at work. Because of this, the first few years in the profession can be often perceived as challenging by newly qualified teachers.

In this study, we examined the support needs of newly qualified teachers by focusing on the viewpoints of both new teachers and principals in Finland. The data were collected from Finnish new teachers (N=145) and principals (N=104) with an electronic questionnaire that included both closed and open questions. Respondents were asked to consider, how much and in which work tasks new teachers need support in the beginning of their career. The methods of analysis included principal component analysis and qualitative content analysis.

We found three wide dimensions of work, in which support in the beginning of a career was needed. These were: Supporting students’ comprehensive individual growth; Working in the school community; and Developing one’s own work. These dimensions included many different types of work tasks or wider work areas. For example, both new teachers and principals rated supporting students’ individual learning and pedagogy (e.g. differentiating teaching and evaluating and grading students) and working with a student welfare group and services (i.e. working in a multi-professional team in order to support students’ welfare and individual development and growth) as very essential support needs. In addition, especially principals emphasised the support needed to grow and develop as an independent professional.
The results of the study indicate the need to support newly qualified teachers during the first years in the profession. Identified support needs are so complex and multifaceted that they cannot only be taught in initial teacher education. Instead, systematic support offered in the workplace is also needed. The results of this study can be used to design the content and form of induction activities. They can also be useful in planning the implementation of initial teacher education.

**Keywords:** newly qualified teachers, professional development, professional competence, principals

**Fair assessment in inclusive foreign language (teacher) education: The role of fundamental attribution error in diagnostic processes**

*Joanna Pfingsthorn and Julia Weltgen; University Bremen*

**Abstract**

Despite the ratification of the Convention on the Rights of Persons with Disabilities, the German educational system has yet to find sustainable ways to create inclusive settings that steer away from parallel worlds created for different groups of learners. Foreign language education (FLE) plays a particularly important role in this task: its main goal of fostering intercultural communicative competence (e.g. Council of Europe 2001) should theoretically connect and include diverse learners. Yet, communicative competence has proven to be a construct that is multifaceted enough to display considerable individual differences between learners and to create divides rather than include. Such divides have been observed in the German context, where FLE was long regarded not worth pursuing among students with special educational needs (cf. Kleinert et al. 2007; Morse 2008; Dose 2019) as well as in research efforts that suggested distinctions between “good language learners”. As opposed to “low-achieving” or “poor” learners (e.g. Ganschow & Sparks 1995), “good learners” experience higher levels of success at foreign language learning (e.g. Nunan 1995) and have been believed to develop strategies to keep a conversation going or experiment with language.

Such categorizations can hardly be considered accommodating to all learners and their diversity (Clough & Corbett 2000). In fact, attributing “poor” observable behavior (e.g. “does not keep a conversation going”) to dispositional traits (e.g. “is a poor learner”), rather than to external factors (e.g. “does not like the task”) is unfair and one of the most commonly documented biases in social perception research, called the fundamental attribution error (Ross 1977). If FL teachers exhibit such bias in their evaluation of learners, they display problematic behavior that questions the very fairness, reliability and sustainability of their assessment.

This contribution presents the results of a quantitative questionnaire study which confirms that (pre-service) FL teachers are indeed prone to the fundamental attribution error in their evaluation of FL learners. The paper discusses practical solutions for tertiary foreign language education programs that raise the awareness and pave the way to fair inclusive assessment.

**References:**

Group B, 14th of May, Thursday, 10:30 – 11:45 (Finnish time)
Supervising teachers’ conceptions about process and content in practice supervision

Lina Lindström, Erika Lofström and Monica Londén; University of Helsinki

Abstract
Practice teaching has been shown to be of crucial importance for reflection and development of professional identity (e.g. Lamote & Engels, 2010; Ivanova & Skara-Mincnea, 2016). However, less research has been conducted on supervising teachers’ understanding of their role in this process. We posed the following research question: How do supervising teachers conceptualize their practical theories related to practice supervision.

We applied a qualitative approach. The supervising teachers were asked to reflect upon beliefs of what is important in supervision, where this conception stems from, and why this is important. 16 practicing teachers participated in the study. Participation was voluntary and based on informed consent. We analyzed the data using inductive thematic analysis and identified four main priorities guiding the supervisors’ work. Priorities stemmed from practical, reflective, structuring and relational supervision beliefs. The participants reflected on the origins of these beliefs, and mentioned prior experiences mainly from own student teaching, theoretical input, and own personality/identity. The beliefs were considered important because of the need to enhance students’ learning process through suitable supervision and in order to support the student teacher’s self-confidence as future teachers. Practice supervision plays a key role in preparing students for a transition from student teacher to working teacher. Consequently, high quality practice supervision is one of the cornerstones contributing to the sustainability of the efforts of teacher education programs.

References

Keywords: practice teaching, practice supervision, beliefs about supervision
"I can do this”. Students experiences of their first year in Teacher Education

*Monica Londen and Kirsi Wallinheimo:* University of Helsinki

**Abstract**

In Finland there are several different educational paths leading to higher education, these include a Finnish Matriculation examination certificate, vocational qualification from a vocational school or through apprenticeship of at least three years of the International Baccalaureate (UBS, 2020). Still, a Finnish Matriculation examination is the most common precondition. In Finland, both classroom teachers and subject teachers are required to have a master’s degree. Teacher education a highly valued study program in Finland and the admission requirements are demanding.

Transition to higher education can be challenging (Perander, Londen, Holm, & Tiihonen, 2020) and the so called First Year Experience influence students’ study pace, retention, graduation (Glogowska, Young, & Lockyear, 2007). Academic emotions (Pekrun, Goetz, Titz, 2007; Ketonen, 2017), self-regulated learning (Asikainen, Hailikari, & Mattsson, 2017) Zimmerman, 2002) and academic self-efficacy (Zimmerman, 2000) are also significant factors influencing achievements in higher education.

In this study we analyse study skills, learning strategies and feelings of self-efficacy among first year teacher education students. The aim is to gain insights that can be applied when further developing both policy and practice within the mentor program, both on an individual and on group level, offered to first year students in teacher education. The aim is to create sustainable learning opportunities for all learners, including non-traditional students, i.e. here referring to students who do not have Matriculation examination certificate. Non-traditional students should be viewed as a resource in our teacher education program promoting diversity and social justice in education.

In this presentation we present the results from a qualitative study of 35 first year students in a teacher education program. The students will first complete a web-based questionnaire regarding the transition to higher education, study skills as well as experiences and academic emotions during their first year of study. Then three focus group interviews with students (who completed the questionnaire) will be conducted in order to gain a deeper understanding of their first year experience. Participation in both the questionnaire and focus group interviews is voluntary and based on informed consent. The analysis of the empirical data will be conducted through thematic content analysis.

The results of the questionnaire and focus group interviews combined with teacher experience of conducting personal study plan supervision, will be presented. The results will be used to further develop the tutor program with specific focus on how to enhance learning also for non-traditional students and ensure that all students reach the learning outcomes of the teacher education program.

**References**


Evaluation of Teacher Training Program in Terms of 21st Century Skills: A Mixed Method Study

Fisun Bozkurt; Pamukkale University

Abstract
The study using the exploratory mixed method aims to reveal how efficient the current social studies teacher training program is to acquire 21st century skills from the perspective of prospective teachers. Survey design was used in the quantitative dimension and phenomenology pattern was used in the qualitative dimension of the study. The 21st century skills questionnaire for teacher candidates was used to collect the quantitative data and the semi-structured interview form was used to collect the qualitative data. Since quantitative and qualitative research models were employed together in the study, a sample was taken from the research universe and the study group was determined. The sample of the study consisted of 335 social studies teacher candidates studying at a state university. The findings of the study revealed that the social studies teacher training program is better in acquiring cooperation and communication skills among 21st century skills, but it is not sufficient in acquiring teaching skills in global connections and digital environments. In addition, the findings indicate that although the 21st century skills are included in the social studies curriculum as the skills to be acquired, these skills are not employed in the learning processes. It is essential that the educational experiences presented by teacher trainers be a model for teacher candidates to use 21st century skills. Teacher trainers should also understand the importance of how the content is taught as well as what is taught.

Keywords: 21st century skills, teacher education, social studies education, mixed method

Sustainability Competences in Finnish Educational Policy Documents

Milla Häkkinen, Kalle Juuti, Jari Lavonen and Anni Loukomies; University of Helsinki

Abstract
Global warming, biodiversity and the global and intergenerational equity has been taken policy priorities in several EU countries including Finland. Education has been seen important in order to answer the need for sustainability challenges. There is need to equip European educators with
sustainability challenges requires. In order to answer the challenges, future generations need specific competences.

Literature on education for sustainability emphasise that in order to enhance more sustainable future, adolescents need to have certain sustainability competences that differ from more general future competences such as creative thinking and critical thinking. Sustainability competences are: 1) systems-thinking 2) future thinking or anticipatory competence), 3) value thinking or normative competence, 4) strategic thinking or action competence, and 5) interpersonal competence. Sustainability competencies conceptualise the human capability to collaborate towards sustainable future states. In high level policies, sustainability is acknowledged.

In this presentation, we will present the sustainability competence analysis of Finnish educational policy document. In the presentation, we will show what competencies are emphasised and how these competencies appear in policy documents such as core Curriculum for Basic Education. The research is a part of a larger research project “Proposals for and from in-service teacher education: teacher education for sustainability (TEDS)” that is an ongoing international Erasmus+ project funded by European Commission. The implications for curriculum development and teacher education are discussed.

Keywords: Sustainability competencies; Teacher education for sustainability; Education policy; Curriculum

Creating space for global responsibility in competence based teacher education
Hanna Posti-Ahokas, Josephine Moate, Marianne Jaakkola, Elina Lehtomäki

Abstract
Sustainability and responsibility are increasingly present in university strategies for research, teaching and societal impact. In teacher education there is a push to operationalize and mainstream these notions in study programmes to build globally relevant competences for sustainable futures. In our paper, we argue that the dominant competence based framing undermines the critical principles of global responsibility and the common social good. Preparing teachers to educate for sustainable futures requires recognition of the complexities and interconnectedness of the local and the global, policy and practice.

This paper draws on an annual international seminar on Sustainable Development Goal 4 to engage educators to discuss the multidimensional purposes of education. Research on student responses to this seminar demonstrates the value of meaningful learning dialogues that develop as cross-cultural and cross-contextual perspectives on education come together. The findings from the qualitative content analysis of student learning journals, reflective texts and online discussions indicate how students can be encouraged to explore different perspectives, to recognise levels of responsibility and better understand the complex networks that create sustainability.

The paper briefly introduces our action research initiative and successive studies examining student responses to the SDG4 seminar. These studies provide the foundation for a university-funded pedagogical development project in autumn 2019 to bring the dialogues around sustainability and responsibility into the mainstream of the Faculty. This initiative sought to broaden the scope of the multimodal, intercultural pedagogies used at the seminar as well as ways of embedding the seminar.
within existing courses of the Faculty to enrich learning related to the global responsibilities of teacher education.

The findings show how the SDG4 seminar as a condensed dialogic space generates new thinking and highlights the value of cross-cultural dialogue on the global responsibility in education. Sustaining the dialogue beyond the event challenges the pedagogical culture still largely based on separate study programmes and division of local and international students. Breaking the boundaries between programmes, languages and modalities are required to create space for dialogue across educational cultures in different programmes and contexts.

Adopting global responsibility into the culture of the Faculty has been challenging despite the positive affirmations from leaders, students and external partners who participate in the activity. Ownership of the issue is critical. The financial requirements may be nominal but responsibility has to be designated and divided across different programmes and recognised as part of the wider community. Our concern is that by depicting global skills and global responsibility through competence based curricula, the complexities related to global responsibility are compromised. We argue that global responsibility needs to be part of the working and pedagogical culture, that is the lived experience, of the Faculty to genuinely address sustainability and responsibility in teacher education.

**Keywords:** global responsibility, pedagogical development, intercultural education

**Sustainability in Nordic teacher education**

*Lili-Ann Wolff, Emelie Cockerell & Ólafur Páll Jónsson*

Lili-Ann Wolff, Emelie Cockerell (University of Helsinki); Ólafur Páll Jónsson (University of Iceland)

**Abstract**

This paper relates to a Nordic research project focusing on the implementation of UN Sustainable Development Goal 4.7. The target is “[b]y 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.” The project is funded by the Nordic Council of Ministers and led by the Icelandic Ministry of Education, Culture and Science.

When implementing sustainability, teachers are in a key position, and teacher education is crucial (e.g., Angelotti et al., 2009; Leal Filho & Pace, 2016). However, even though educational policy and strategies include sustainability as a central concern, many teachers lack competency to handle the tricky and complex sustainability questions (Bürgener & Barth, 2018; Evans et al., 2017;). They do not know how to deal with controversies and uncertainties that underlie the field (Wolff et al., 2017), and find it challenging to promote sustainability values in an educational system that is plagued by non-sustainable values and practices (Hursh et al., 2015). A precondition is that there are sustainability courses in teacher education dealing with sustainability in a wide and engaging way. One aim of this Nordic study is to investigate the implementation of sustainability in teacher education. In this paper, we pay special attention to teacher education in Finland and Iceland with educational policies in the other Nordic countries as the wider context. The study reveals an
ambivalent situation in teacher education in these two countries. While there are examples of good work and ambitious projects, there are also large gaps to fill.

References


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Keywords: Sustainability education; Nordic teacher education; SDG 4.7; Agenda 2030

Group D: 14th of May, Thursday, 12:00 – 13:15 (Finnish time)

New Models on Social Support for New Qualified Teachers

Solveig Cornér & Erika Löfström; University of Helsinki

Abstract
The presentation describes research (DBR) with focus on newly qualified teacher support. Support is conceptualized as social support that takes place through practice supervision, mentoring and school leadership. Because social support (e.g. Väisänen et al., 2016) is always rooted in institutional structures and practices, we adopt a systems approach with a focus on both individual, inter-individual and institutional forms of support (cf. Pyhältö 2018). Prior research highlights the importance of mentoring (Löfström & Eisenschmidt, 2009). It is known that the first five years are the most critical for newly qualified teachers (Rots et al., 2007).

The research questions are:
1. What kind of social support is available for newly qualified teachers on individual, collegial and institutional levels, how is the support perceived and what are the development needs?
2. What processes lead to the implementation of social support in the school’s culture?
3. What are the prerequisites regarding leadership and collegial cooperation in order to establish sustainable social support for newly qualified teachers?

The study applies a design-based research (DBR) approach (e.g. Juuti & Lavonen, 2006). In line with DBR, the study identifies ways of supporting new teachers, and together with schools, develops best practices into support models that are implemented in the partnering schools. Data are collected throughout the process in authentic interactions with the parties, including newly qualified teachers, supervising teachers and mentors, and school leaders. We anticipate to work with five Finnish primary schools. The schools have 40-50 supervising teachers. We can involve approximately 30
students teachers at the final stage of their studies. The number of newly qualified teachers will be dependent on the situation in the schools at the time. Participation in the research will be voluntary and based on informed consent.

The process is in its starting phase. In the presentation we will discuss the project underpinnings, its theoretical grounding and the process of research and development as we envision it at this point. In the spirit of DBR, we engage in exchange of ideas and expose the design to scrutiny from the beginning as part of developing a robust agenda. The outcome is research-based social support implemented in practice and documented for others to apply.

References

A design-research of counselling forming personalisation in vocational education in Finland

Niklas Rosenblad, Birgit Schaffar & Erika Löfström; University of Helsinki

Abstract
In this presentation we examine results from, and parts of processes within, a design-based research (DBR) developing counselling systems of individualised competence-based learning in upper secondary Vocational Education and Training (VET) in Finland. In the DBR we are collaborating with two VET schools.

Requirements defined at a high political level to ‘meet the needs of students and working life’ (FMEC, 2017; OECD, 2014) recently reformed the fundamental foundation of VET (Law 531/2017). In the new educational setting qualification requirements replaced curriculum, competence-points barred study weeks, and qualification by personalisation scattered learning to individual puzzles of culturally diverging contexts of school-based learning (SBL) vs. work-based learning (WBL). The normative solution for structuring the dispersed paths are the ‘personal competence development plan’ (PCDP) (531/2017:5, §44-49).

In line with the reform, funding models for VET was changed to reward efficiency, performance and educational outcomes (see FMEC, 2020). Therefore, implementations of the new requirements are questions of financial sustainability, in addition to social, ethical and cultural issues of learning at the practical level of activity. Meeting goals significant for funding (system level) is now crucial at the level of core-activity (learning). We are focusing on how these requirements of change are dealt with in systems forming PCDPs. We ask: how can systems of educational counselling be developed towards meeting the new requirements of personalisation?
We analysed data from ethnographic observations (n = 29) of counselling situations forming PCDPs, and semi-structured interviews (n = 12) of counsellors administering PCDPs. In the analyse, inspired by activity theory (Engeström, 2014), themes constructed from the coding was explored to artefacts, which are further developed in collaboration with practitioners towards implementable models (e.g. McKenney & Reeves, 2013) in the counselling activity.

Our study shows examples of how counselling activities are struggling towards meeting newly set requirements, and how themes are forming developmental positions. Such are the individual relations of SBL–WBL combinations, and how counselling is meeting different individual needs for special support. Additionally, both to be positioned in the PCDP. Here, DBR can be fruitful in order to broaden the common understanding of connections between science and practice.

References

Keywords: Vocational Education and Training, design-based research, competence-based learning, personalization

Students' opinion about professional ethics relation of the teachers

Elmira Salimzyanova; Kazan Federal University

Abstract
Professional teacher’s ethics is a collection of moral codes of their professional work. It is significant that the teaching profession respects certain designated professional-ethical codes of conduct between the teachers and the students, with their colleagues and other people they professionally cooperate with.

Our study is focused on analysis of the professional ethical relation of teachers towards students, seen from student’s point of view. These are the results of student’s reported opinion of the tenth graders from seven schools of Russia, Kazan. On how teachers keep up to certain moral codes in the communication they achieve with the students during their education. This professional ethical relation of the teachers is analyzed in relation to respecting the following moral codes:
1) Implementing fair and professional teacher-student relation;
2) Motivating students to express free ideas and opinions;
3) Accepting and respecting different student’s needs and requests;
4) Establishing a relation of teacher-student mutual trust and respect, paying respect, paying respect to student’s personality and rights;
5) Following standards of non-aggressive communication, with the students during teaching and during extra-curriculum activities;
6) Keeping to the principles against discrimination, offensive behaviour and acceptance of inhuman punishments for the students;
7) Objective evaluation of the student’s achievements.

According to the many research results, it has been confirmed that keeping to the moral codes of conduct between teachers and students is a base condition in creating positive atmosphere in teaching and establishing a relation of partnership with the students. It has been stated that the degree of their respect is not only in dependence with the degree of student’s accomplishments, but in the stimulation of their development as well.

The largest number of the respondents consider that teachers have fair and professional attitude that they pay respect to students needs and requests, that they motivate free ideas expression and opinion, that they respect their rights, their personality and dignity, as well as the principles of non-aggressive communication with students. The results also show that not always and not all teachers keep to the moral codes of conduct with the students. One third of the respondents have reported their opinion of the total number of respondents. Their reactions are that teachers sometimes treat them rudely and arrogantly, that the teachers do not motivate and do not pay attention to student’s ideas, that they are more tolerant and subjective towards female students, that they do not grade them objectively and that some teachers insult them using bad language and threaten them.

The expressed attitude and opinion about not respecting moral codes of teacher’s conduct that have been reported at one third of the respondents, point out that this problem is present and that the educational institutions should treat in with more concern. Despite the fact that the moral codes of conduct of the teachers are regulated by certain laws and by-laws, still, it is necessary that this issue is treated more precisely by a special ethical codex for the teaching profession. That way all moral standards of this profession would become accessible and beneficial for the teachers, the students and their parents.

**Keywords:** teacher ethics; professional ethics; students; primary schools; primary school teachers

**Mentoring and observation processes for an ethical and sustainable initial teacher education**

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Faculty of Teacher Training and Education of the Autonomous University of Madrid (UAM)

**Abstract**
The Teaching observation in initial education for teachers entails as key to promote ethic and sustainable educational improvement processes.

**IMPLANTAndo #PIMeFIM** project (FPYE_010.19_IMP) is the acronym and hashtag we created to spread the work we are currently carrying out as part of a Comprehensive Plan for Improving Initial Teacher Education at Autonomous University of Madrid. This innovative project began in 2018-2019 year to improve initial teacher education (Garrido y Thoilliez, 2019) and it continues in this year, 2019-2020, with a higher commitment from faculty members at the School of Teacher Training and Education.
This submission aims at explaining how this training empowers students’ pedagogical practice in a sustainable way, which is developed within the Practicum Subject of the Teaching Degree. The research sample is composed of 27 professors and 93 students who have done a pretest-posttest in order to analyse how their ethical commitment (from both teachers and students) and their sustainability (from teachers) vary.

Pedagogical practice observation is a required dynamic to improve pedagogy in a given school situation (Hattie, 2009; Úbeda, 2018). It is shown that mentoring and auto-observation processes promote professional awareness and improve teaching practice (Perrenoud, 2004; Tardif, 2004; Verástegui, 2019).

Some researches and international organizations (Day, 2005; Enguita, 2018; OCDE, 2014; Perrenoud, 2004) warn of the need for initial teacher education improvement. However, there are still few universities which are systematizing practice observation and reflective processes in initial training programmes (TALIS, 2013). We can confirm, as of PIMEFIM experience, that these training proposals promote, on one hand, sustainability in pedagogical processes of university professors and, on the other hand, they boost the ethical dimension on students.

Firstly, they promote sustainability in university teaching practice improvement through the use of video and collaborative training seminars. There has been a 50% decrease in mentoring time and this time is considered as more effective and more interesting in a pedagogical approach. In this way, mentoring is a sustainable pedagogical practice which is done in hours allocated for academic support in the Practicum course. Secondly, we can observe through the answers of participating students that pedagogical practice observation has encouraged the ethical dimension for future teachers because they can understand what strengths and weakness their teaching performance has. This self-reflection is a key exercise to educate observation and reflective competences in future teachers. They are critical competences to foster concerned and committed teachers, who look for contextualized improvement processes within their schools.

In conclusion, promoting observation processes in initial teacher training is a sustainable improvement in both time and required resources. Ultimately, a training proposal that empowers an ethical dimension of pedagogical practice in future teachers.

References
In this paper we discuss the possibilities to collaborate in teacher education curriculum development work within two countries, Finland and Pakistan. The main interest is to develop the four-year B.Ed. (Honors) Elementary degree program of the Government Elementary College of Teacher Education (GECE), Pakistan. The overall aim is to develop individuals capable of effectively participating in the highly competitive global, knowledge-based economy and the information age. Also the work aims to educate citizens committed to creating a just civil society that respects diversity of views, beliefs and faiths. On the five year project the goal is to upgrade the infrastructure, improve the administration as well as enrich the curriculum by reviewing and developing the curriculum design, content and delivery methods of the study program as well as the pedagogical capacity of the faculty.

The purpose of this paper is to reflect two of these key tasks. The work is done by producing recommendations for (1) Curriculum Enrichment (academic framework) and (2) Syllabi development (course sequence suggestions).

Keywords: curriculum reform, multicultural work, research-based teacher education

Governing teachers professionalism through quality

Miriam Prieto; Autonomous University of Madrid

Abstract
Topic and purpose. The improvement of education quality has become the key goal of reforms carried out in educational systems around the world. However, quality is often used quasi-adjectively (Alexander, 2015), and remains abstract and elusive (Kauko et al., 2018). The question about the meaning of education quality remains not just unanswered, but unasked. Our hypothesis here is that this naturalization is deliberate, as it hides the use of quality as a technology of governance.

According to Schneider & Ingram (1990) public policy needs influences or manipulates people’s behaviors through five types of tools: authority, incentive, capacity, symbolic and hortatory and learning. Symbolic and hortatory tools “assume that target populations are more apt to comply with behaviour desirable from a policy perspective if the targets see that behavior as consistent with their beliefs” (p. 519). The use of quality as a technology of governance implies a shift in the ways
that education is understood, being the consequence the narrowing of the ethical condition of the teaching profession. Quality works, then, as an imperative that hides processes of education mercantilization through changes in the meaning addressed to key concepts related to the moral aim of education, professionalism, parents’ participation and schools answerability.

Method. Quality has become an imperative, meaning as such both something that is essential, unavoidable, but also a command, an order. Thus, speaking about quality as an imperative means that it gets a totalitarian character, an imposed feature that defines education from its nature. This paper takes Sallis’ quality imperatives (2005) as an analytical framework with the aim of identifying key shifts in the meaning of core terms that have progressively gotten recognition in education. According to Sallis, the imperatives of quality within education can be labelled under four categories: the moral, the professional, the competitive and the accountability imperatives. Each imperative introduces a subtle change, a shift in the meaning addressed to education that changes its substance. Main Findings. He moral imperative is used to identify a sequence of reductions in the meaning of education from good education composed by core values as social justice, democracy or freedom, to a definitive emptying of its meaning, represented by the human capital theory (Tan, 2014). The professional imperative operates through a shift in the meaning assigned to professionalism, through two kind of reductions: the replacement of professional autonomy by professional competence, and the displacement from a model of occupational professionalism to an organizational one (Evetts, 2009). The competition imperative understands quality as the customer satisfaction, shifting the understanding of education as a public good to a private service. Finally, the accountability imperative operates switching the meaning of accountability, from a notion which carries connotations of “being answerable-to“” (Charlton, 2002, p. 18), to a technical meaning that refers to “the duty to present auditable accounts” (p. 18). The consequence is the reduction of teachers’ judgement and decision making to objective and measurable schools outcomes, narrowing the ethical understanding of the teaching profession.

References

Keywords: Education quality, teachers professionalism, quality imperatives, ethical profession
Abstract
In its report, “Improving Schools in Scotland: an OECD perspective” (2015), the OECD provided specific commentary on the Professional Standards for Scotland’s teachers as follows: “The standards are bold and supportive [...]. However, standards frameworks are much harder to implement effectively than to set in the first place. There is a question of how deeply the GTCS standards have moved from the theory to the practice and become embedded in the professional culture of the Scottish educational system.” (2015:126) Subsequent to the OECD report (2015), in the context of the constantly evolving educational landscape, and increasing public expectations and to address the current climate of anti-intellectualism and mistrust of institutions the General Teaching Council for Scotland (GTCS) engaged in a review of the Professional Standards and Professional Code. This suite of documents outlines teacher professionalism which provides a sustained vision of what it means to be a teacher in Scotland. They underpin the goal to be an improving system and to support high quality learning experiences for all of our children and young people. The purposes of the Professional Standards and Professional Code offer a narrative that prioritises a values-based profession, premised on social justice, and through this enhances teacher quality and commitment. The Professional Code reflects the expectations of ethical conduct that all teachers share and commit to as professionals and is used as part of the suite of documents in the fitness-to-teach process. The goal of this paper is to share the research undertaken by GTCS on Professional Standards and the Professional Code and their contribution to the centrality of education to building better futures. It will discuss the grounded theory approach (Charmaz, 2006) based in a constructivist model of induction theory building to create a suite of documents that are premised on a strong ethical foundation that supports a sustainable concept of teacher professionalism. GTCS employed a mixed methods approach to gather data that involved collecting the interpretations and perceptions of the purposes and use of Professional Standards and the Professional Code. The recommendations from the consultation to make improvement to the content, e.g. to consider the place of policy and ensure Learning for Sustainability is a significant contributor to teacher professionalism and teacher learning, will be discussed and the plan for the launch of the refreshed Professional Standards and revised Professional Code, to include public engagement, will be shared. This research has explored the contemporary notion of teacher professionalism and the moral imperative of teaching professionals through the lens of a refreshed suite of Professional Standards and Professional Code. In doing so, it has positioned teaching professionals as an ethical compass and ‘social glue’ to support and promote the rebuilding of shared social and educational spaces. Through the literature and methodology based on a strong platform of social justice and consensus seeking across all education stakeholders, GTCS has delivered a high-quality set of refreshed Professional Standards and revised Professional Code that can support teachers, children and young people to learn our way to a better future. References

Keywords: Professional Standards, Teacher professionalism, Professional learning
Saving the planet? A new blended approach to phenomenon-based learning

Kruskopf, M., Lammasaari, H., and Lonka, K.; University of Helsinki

Abstract

Introduction: New approaches are needed to offer all teachers a possibility to implement the current Finnish curriculum that includes seven broad-based (or transversal) competencies as well as projects that bridge across the borders of subject-matter domains. Such interdisciplinary projects are often carried out in the form of phenomenon-based learning. Our project “Phenomenal teacher education” that aimed at developing a blended solution (combining face-to-face and online learning) was funded by the Ministry of Culture and Education (2017-2019). The result of the project was a 5 ECTS pilot course based on Engaging Learning Environment (ELE) model (Lonka, 2012; 2018), aiming at engaging the students in meaningful and collaborative learning. We used the Claned Platform to construct the virtual learning environment. The analytics features of the platform enabled the tracking of student engagement and progression with the course material thus making targeted pedagogical interventions possible. The broader theme of the course was “saving the earth”, and the participants could integrate various broad-based competencies and subject domains of the Finnish curricula in creating their phenomenon-based project outputs under the general theme. These outputs were then accumulated into an open source “phenomenon gallery” to be utilizable by future users of the course platform in their teaching.

Methods: In the beginning of the project, all teacher students (n=289: pilot course 43, Psychology of Learning: 246) filled in a questionnaire including questions based on the expectancy-value theory (importance, interest, and self-efficacy of teaching broad-based competencies), epistemic beliefs and study engagement. Qualitative data collected included a learning diary and course feedback as well as the learning tasks embedded on the course platform. Analytics of the Claned environment are also utilizable for research purposes, including the flow-channel and interest ratings of different materials in each phase of the ELE-model.

Results: Preliminary results suggested that there are some blind spots in future teachers’ self-efficacy in teaching the broad-based competencies. Although the interest and especially importance ratings of the different broad-based competencies were, with some variety, notably high, the teachers’ self-efficacy in teaching the competencies was generally lower. The areas in which teachers especially did not feel competent were some aspects of working life skills and entrepreneurship as well as ICT (i.e. computational thinking). The preliminary analyses of the teacher expectancies and values will be viewed in relation to what matters were included in the phenomena created during the pilot course.

Implications: The course enables all future and present teachers to have an opportunity to experience and practice phenomenon-based learning and future skills, emphasized by the Finnish national curriculum, within a blended learning environment. They will also gain experience on using a modern virtual learning environment and learn how to best design hybrid learning experiences with their own pupils. The research results will be utilized to further develop the course learning environment holistically to best address the pitfalls in teacher learning when it comes to the broad-based competencies as well as modern teaching methods.
Keywords: broad-based competencies, phenomenon-based learning, teacher education, hybrid learning environment

Profiling the Proinnovative Skills Set - a Step towards a Future-Oriented Education

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Abstract
Introduction: Modern world challenges to be addressed by education. Modern world is facing more and more challenges in many areas, including demographic and environmental crisis, rising importance of technology and robotics, social instability or economic crisis (cf. “The Global Risks Report 2020”, World Economic Forum, 15th Edition). What is more, the structure of society and work market is constantly changing. In the next few years jobs based on the traditional school skills set are going to disappear (cf. “The Future of Jobs Report 2018”, World Economic Forum). Today more than ever good quality education needs to prepare students for dealing with changing environmental, economic and social conditions and requirements. One of the conclusions derived from analysing the most influential prognostic reports is to focus educators’ attention on developing proinnovative skills, self-governance and flexibility. Key question addressed by this paper is: how to improve general education model so that it supports the growth in students’ proinnovative skills set?

Stating the research problem: describing and operationalizing proinnovative skills set. In 2018 the new report was published in Poland: “Szkoła dla innowatora. Kształcenie kompetencji proinnowacyjnych” (“A School for an Innovator. Developing Proinnovative Skills”) written by Jan Fazlagić et al. and was adapted as an expertise in a nation-wide project for 20 schools sponsored entirely by the Polish Ministry of Development. The project encompasses planning and introducing different activities for schools (teachers, school leaders and students) as well as support in changing the learning space for students. All these activities are meant to improve development of proinnovative skills and be set as a model for other schools in Poland. But all actions undertaken in such a serious project needs to be based on a clearly stated goals and effects. As a part of the consortium fulfilling the projects, authors of this paper were responsible for producing a set of tools supporting both goals stating and measuring the results. In the Fazlagić’s report proinnovative skills were described as a set of 18 skills, loosely interconnected and briefly described. It was not enough a tool for both planning interventions and measuring results.

Presentation of results: Proinnovative Skills Set, Learning Progressions for teachers and students. Main focus of this paper is to present effects of authors’ work in describing and operationalizing proinnovative skills set. First of all the list of 18 skills was combined into five main competences, basing on the psychological and pedagogical literature, which are: critical thinking, problem-solving, cooperation, leadership and self-management. These competences describe behavioral skills (easy to measure), but most importantly, they reflect the desired mindset, philosophy and axiology, necessary to survive and flourish in an ever-changing world. After the process of clustering was complete, the next stage was to create a descriptive profile of an innovator, so that the educational goals could be set. consequently, the learning progressions are to be prepared as a tool to measure progress and results.

Discussion: Long-term effects. The long-term of this project are still to be seen (project is in a phase of introducing), but there are a few points that could possibly positively influence its sustainability:
briefly and clearly stated desired outcomes, easy-to-use evaluation tools, solutions easily introduced in all learning environments.

Keywords: proinnovative skills set, students’ profile, learning progressions.

Global competence across European teacher education programmes

Parmigiani, D., Jones, S., Palaiologou, N., Murray, M., Korkealehto, K., Kunnari, I., Campora, A., Magioncalda, A., Zucca, D.

Parmigiani, D. (University of Genoa, IT); Jones, S. (University of Hull, UK); Palaiologou, N. (Hellenic Open University, GR); Murray, M. (University of Hull, UK); Korkealehto, K. (Häme University of Applied Science, FI); Kunnari, I. (Häme University of Applied Science, FI); Campora, A. (University of Genoa, IT); Magioncalda, A. (University of Genoa, IT); Zucca, D. (University of Genoa, IT)

Abstract

Introduction and theoretical framework. There is currently no authoritative international publication or report to exemplify and inform teacher educators on the effective integration of global competence into teacher education programmes. Although there has been some work done in schools around global competence this has not been effectively addressed within Higher Education programmes (Gaudelli, 2016; West, 2012; Zhao, 2010; Longview Foundation, 2008) so that new teachers leaving university are often unaware of the need for global competence and are unskilled to integrate the teaching of such competencies within the curricula.

On this basis, seven partners have started an Erasmus+ project named “Global Competence in Teacher Education”. This project directly addresses this challenge by working with teacher educators and trainee teachers (defined as anyone who is training to teach at any level, whether they are doing this in university or school or other settings) across the EU to achieve a key objective: to develop future cohorts of teachers who are both globally competent themselves but also have the skills to develop global competence in their students. This objective will be addressed through the development of four activities which can be summarised as follows:

1. Scoping exercise and curriculum mapping activity that will generate a series of reports aimed at teacher educators, policy-makers and school leaders.
2. The development of globally competent teacher educators through interactive resources that will provide a platform where global competence can be learned about and explored within ITE programmes.
3. A flexible training programme for trainee teachers that will support trainee teachers as they learn to both become globally competent themselves and learn how to develop global competence in their students once they become qualified teachers in schools.
4. Academic outputs to highlight the outcomes and impact of the project and to support the dissemination of intellectual outputs amongst academics, policy-makers and other stakeholders.

Research design. As mentioned before, the first intellectual output of this project consists of a scoping study leading to a series of reports to inform potential users, policy-makers and researchers about the effective integration of global competence within initial teacher education programmes. Starting from this premise, we arranged a qualitative-based research design, structured as follows:
1. Research question. Is the idea of global competence included in the initial teacher education programmes of the project’s partners?
2. Definition. We based our activity on the PISA 2018 definition of global competence: Global competence is the capacity to examine local, global and intercultural issues, to understand and appreciate the perspectives and worldviews of others, to engage in open, appropriate and effective interactions with people from different cultures, and to act for collective well-being and sustainable development.
3. Methodology. Thematic semi-structured interviews.
4. Participants. 24 key persons who are appointed for the organization of the teacher education programme in 17 European countries. We involved, for instance, heads of departments, heads of teacher education programmes, heads of teacher training boards, teacher educators, etc.
5. Procedure. The structure of the interview was as follows:
   a. Asking some information related to the ITE programme. What levels are involved, number of students, the structure of the ITE programme, etc.
   b. Starting with an open question. After presenting the definition: What are the main descriptors of global competence in your opinion?
   c. Presenting 5 questions about the context, the actors, the framework, the topics and the methodology used to carry out the global competence issues.
   d. Final question: given the actual situation of GC in your ITE, what would you like to implement to arrange an ideal situation where the GC idea is carried out?
6. The qualitative data analysis was carried out in four stages: encoding the data, determining the codes, organizing the codes and subcodes, and identifying and interpreting the findings. This analysis was also examined with nVivo 12.

Findings. The first findings indicate that global competence is not included formally into the European teacher education programmes but there are some aspects related to it, such as: secularism, cooperation, inclusion, social engagement, multicultural dialogue. The results will specify the methods and the contexts where the idea of global competence can emerge more easily and will show the diverse interpretation of global competence in the European countries. Starting from these ideas, we will try to identify the best paths through which global competence can be included into the teacher education programmes in an explicit and well-informed way.

References

Keywords: Global Competence; Intercultural Education; Intercultural Dialogue; Global Citizenship Education
Overcoming global learning crises – a Finnish Case of policies and tools for sustainable education with equity and quality

Hannele Niemi & Päivi Kousa; University of Helsinki

Abstract

Today, at least 250 million children are not able to read, write or adequately count even after four years in school. UNESCO has reported that by the year 2030, over 800 million children and adolescents do not have basic academic skills. This corresponds almost as big amount as the whole population in Europe. This paper presentation starts with an analysis and a description of how Finland is responding to the urgent global needs for more sustainable education. The analysis covers policy level actions of which one of the most important was the commission that Ministry of Foreign Affairs gave to an expert group (Reinikka & Niemi & Tulivuori) in 2018. Thereafter, there is an analysis on what a role can technology play in solving learning crises, providing also a case of the on-going project.

The expert group’s report was based on research documents, evaluation reports, 60 in-depth interviews of stakeholders, a survey for the Finnish civil society organizations, and Focus group meetings. The report Stepping Up Finland’s Global Role in Education was published in the late 2018. The major message was that Finland’s role have been very modest even though Finland has a reputation of high-quality education. Consequently, Finland’s role should be much stronger and it would require more strategic national leadership, more effective cooperation among stakeholders and deeper understanding of educational and cultural contexts. Finland should focus especially on the following areas: Current priorities of girls’ education and inclusive education; Supporting coherence of the entire educational system; Strengthening school leadership and teachers’ professional development; Collaborating between teacher education programs; Supporting learner-focus in basic education, and Sharing Finnish experience in education reform. Finland should also participate much more in key multilateral education forums in EU and globally. Many of the recommendations are in an implementation phase nationally and in Higher Education institutions.

The urgency and seriousness of learning crisis requires not only sustainable actions and cooperation internationally but also new innovative tools. National funding agency Business Finland has created new co-innovation programme for public-private cooperation. As part the programme in 2019, nearly twenty Finnish researchers, four companies and practitioners co-created multi-partner research project AI in Learning for responding to the need of future learning. The aim was to develop new AI-related tools and methods as well as the possibilities for better human machine-interation for high quality learning and students’ equity. Significantly, the models can be applied in different cultural contexts as well. The following issues are analyzed in the AI in Learning project: Major factors that increase students social-emotional wellbeing and cognitive learning outcomes and critical factors for dropping out learning and school; Augmented reality with adaptive intelligent tutoring and game-based simulation for vocational education and working life; and Ethical issues related to AI and learning. AI creates new opportunities for different learners who might be not ever reach the needed skills without AI tutoring and support. The presentation wants to emphasize that global responsibilities in education requires both policy level decisions and new stools for quality of learning.
Design for sustainable integration of virtual learning environments in teacher education programmes

Stefania Savva and Nicos Soulele; Cyprus University of Technology

Abstract
This article enquires into specific pedagogical approaches for integration of virtual learning environments, as tools/resources for teacher education. The conceptual framework draws on findings from the Museum Affinity Spaces (MAS), a two-year pan-European scale project funded by the Research and Innovation Foundation in Cyprus.

The overarching aim of the project is to grant museum educators, school-teachers and diverse students, with opportunities to enhance their repertoires of multiliteracy practices, through engagement with the digital infrastructure developed. The theoretical grounding of the paper lays on previous work, introducing the potential of an empirically drive framework employing multiliteracies pedagogy and the theory of affinity spaces, incorporated into virtual learning practice, to inform instructional design for teacher education programmes. The research initiated in November 2018 through design-based research (DBR) methodology and unfolded in three phases: the preliminary phase, the prototyping phase, and the implementation and assessment phase. This paper presents the outcomes of the preliminary and prototyping phase of the project, in respect to the virtual learning environment and pedagogical scenarios and tools developed. We intend to explore the sort of online professional development programmes that could be developed, to support sustainable literacy practices for teaching and learning. In this respect, we provide insights into educators’ and students’ experiences, in attempting to demonstrate the potential of the Pedagogical Framework introduced, to inform future policy in professional development across Europe. Evidence of these data suggest that utilising virtual learning environments in a systematic manner, can make teacher education more relevant to contemporary challenges. We argue of the need to shift towards the compulsory design of virtual learning environments as part of teacher education programmes/courses, in adopting the perspective of the teacher as a learning architect and introducing the concept of affinity literacy zones, as a means to facilitate learning for culturally and linguistically diverse students.

Keywords: teacher education programmes; professional development; virtual learning environments; multiliteracies; affinity spaces; inclusive education; sustainability

Finnish student teachers’ perceptions of their development of 21st-century competencies

Shuanghong Jenny Niu and Hannele Niemi; University of Helsinki

Abstract
This study explored how teacher education can prepare student teachers for future demands and sustainability in teaching and learning. Our empirical study investigated how well student teachers in Finland acquired 21st century competencies in their teacher education programs and how well they applied these competencies in their teaching. In addition, the study sought to identify the best practices and major obstacles to achieving these competencies in teacher education. The study was
implemented at two universities and three universities of applied sciences in Finland which have teacher education programs. Data were collected quantitatively and qualitatively from student teachers (n=227) who were studying in teacher education programs at these five universities. The student teachers assessed their 21st century competencies with a structured questionnaire which also included open-ended questions. The theoretical frame of the questionnaire was based on Ravitz’s studies focusing on eight specific teaching-related 21st century competencies. These competencies in Ravitz and in our study are as follows: Critical Thinking; Collaboration; Communication; Creativity & Innovation; Self-direction; Global Connections; Local Connections; and Using Technology as a Tool for Learning. The quantitative data were analyzed using descriptive statistics and correlation analysis. The qualitative data were analyzed using content analysis. Based on student teachers’ self-evaluation, the study showed that the student teachers achieved the 21st century competencies well (a mean of 3.25 out of a maximum of 5) even though there were differences between different competencies. The highest-scoring competency was “Collaboration” and the lowest was “Global Connections”. Student teachers’ self-assessments showed that they had been fairly successful in applying 21st century competencies in their teaching at schools (a mean of 3.44 out of a maximum of 5). There was a strong relationship between more theoretical studies of 21st century competencies and how they can be applied in practice. Correlation varied between .34** and .42**. Open-ended questions produced convincing evidence that collaborative learning can contribute strongly to student teachers’ 21st century competencies development. They also confirmed that applying the competencies in teaching can deepen competencies development. The implications and suggestions for student teachers’ 21st century competencies development are: (1) facilitating well organized collaborative learning to create more opportunities for student teachers to learn from each other and with each other; (2) ensuring that theoretical learning and applying the competencies go hand in hand to achieve effective results; (3) making the development of competencies more visible by defining them in learning outcomes or offering a specific course on them; and (4) ensuring enough time for learning, practice and reflection.

**Keywords:** Student teacher; 21st century competencies development, teacher education program

**Ethical issues of AI in learning in school contexts**

**Päivi Kousa & Hannele Niemi; University of Helsinki**

**Abstract:**

This paper presentation analyzes ethical issues that are related to Artificial Intelligence (AI) based tools and learning environments. AI provides new opportunities to learning in schools but also consists of many ethical challenges. According to UNESCO, major challenges are related to equity, teacher preparation for AI and vice versa, and most of all, ethics and transparency. The study is part of the big Finnish research project AI in Learning that has develop research-based AI tools for human-machine interaction. The project is funded by Business Finland and consists of researchers, practitioners and four companies. One research task of the project is to investigate ethical issues that are related to learning in AI in environments.

The main research-questions of this paper presentation are: 1) What are the main challenges of the ethical issues concerning AI-related practices in school contexts? 2) How AI-related issues could be solved in order to support equity and lifelong learning? Empirical data has been collected by semi-structured interviews of company representatives (n=8) who are developing AI-related tools for learning.
According to the company representatives, major ethical challenges were trustworthiness, transparency, privacy, equality, risk of bias and questions about data ownership and responsibility. In addition, negative reputation of some larger companies, cultural differences, inequality between students and schools even in Finland, ambiguous legislation and controversial guidelines concerned also some of the respondents. There were also some concerns about parents or other persons who do not accept AI-related platforms and questionnaires even if a student would participate willingly and would benefit from the supportive guidance from the machine. The respondents proposed many examples how the ethical challenges have been solved. For example, a company has an agreement that all the data is anonymised and the owner of the data (school or community) is responsible for the safe use and storage. Most of the respondents stated that the challenges are avoidable if they are recognized and prevented already from the beginning of the research and development process.

The significance of the results gives a strong evidence that many ethical issues must be solved when AI is implemented in school environments. Implications concern also teacher education and teachers’ work. Furthermore, according to the findings of the case-study, a multidisciplinary discussion, support and collaboration is needed between companies, researchers, policymakers and those who use AI-related tools not only in schools but also in working life. More research on ethical issues of AI in learning is needed, also in a global scale.

**Keywords:** AI in learning, Ethics

**Digitality in teacher education: Experiences of ethical aspects in using digital technologies**

*Kirsi Wallinheimo & Ina Juva, Gunilla Holm; University of Helsinki*

**Abstract**

The study using the exploratory mixed method aims to reveal how efficient the current social studies teacher training program is to acquire 21st century skills from the perspective of prospective teachers. Survey design was used in the quantitative dimension and phenomenology pattern was used in the qualitative dimension of the study. The 21st century skills questionnaire for teacher candidates was used to collect the quantitative data and the semi-structured interview form was used to collect the qualitative data. Since quantitative and qualitative research models were employed together in the study, a sample was taken from the research universe and the study group was determined. The sample of the study consisted of 335 social studies teacher candidates studying at a state university. The findings of the study revealed that the social studies teacher training program is better in acquiring cooperation and communication skills among 21st century skills, but it is not sufficient in acquiring teaching skills in global connections and digital environments. In addition, the findings indicate that although the 21st century skills are included in the social studies curriculum as the skills to be acquired, these skills are not employed in the learning processes. It is essential that the educational experiences presented by teacher trainers be a model for teacher candidates to use 21st century skills. Teacher trainers should also understand the importance of how the content is taught as well as what is taught.

**Keywords:** digitalization; ethical aspects; teacher education
Group H, 14th of May, Thursday, 14:00 – 15:15 (Finnish time)

Teacher identity: Can ethical orientation be related to perceived competence, psychological needs satisfaction, commitment and global self-esteem

José Castro Silva, Francisco Peixoto and Manuel Granjo

Abstract
Teachers’ sense of identity is influenced by a set of factors, remaining unclear how they related to each other and how much weight is assigned to them by teachers. Based on the existing literature and empirical data concerning teacher identity and ethical frameworks, this study tested a model aiming to understand how indicators of teacher’s identity (e.g. ethical orientation, perceived competence, satisfaction of psychological needs, commitment, and global self-esteem) relate to each other. The model was tested through structural equation modelling (SEM) using data from 643 Portuguese teachers aged between 23 and 66 years, (M years of service=15.4). Results showed that ethical orientation can play an important role in teacher’s identity, having direct and indirect effects on the other components of the model. The findings highlight the importance of ethical orientation as a variable to take into consideration in the study of teacher’s identity and teacher training.

Keywords: Teacher identity; Ethical orientation; Psychological needs satisfaction; Commitment; Self-esteem

Ethic dimension in teacher competences frameworks from a global perspective

Lucía Sánchez-Tarazaga and Jesús Manso
Lucía Sánchez-Tarazaga (Jaume I University); Jesús Manso (Autonomous University of Madrid)

Abstract
(Introduction) Internationally, there has been an increased interest in teacher competences driven by demand for quality assurance and greater recognition of teacher profession. Enhance teacher quality is inexorably linked to teachers' beliefs, values and professional ethics, that is directly related to teacher competences. Moreover, competence means that teachers act professionally and appropriately in a situation and it has a lot to do with ethical practices. However, literature evidences that teacher education neglects the teaching of ethics (Campbell, 2008). Given that teachers’ behaviour is substantially determined by their thought processes, and that values, beliefs, and ways of thinking influence practice (Arthur, 2010; Clement, 2007; Lovat & Toomey, 2007; Lovat, Toomey, Clement, Crotty & Nielsen, 2009; Rowe, 2004; Westcombe-Down, 2009), an emphasis needs to be placed upon ethics. As we stated in a previous work (Manso y Sánchez-Tarazaga, 2018), these competences frameworks are becoming more relevant as an opportunity to strengthen the profession.

(Method) This study has been designed to explore the role that ethic dimension is playing in a global context document of teacher competences frameworks from international organizations. The method has consisted of a content analysis of the competence frameworks of European Union, OECD and UNESCO. We have described and compared their approaches, focused on two main variables: fields of competences and the areas of teacher policy where these frameworks apply. Finally, we have defined which is the place of ethic aspect in these teacher competences frameworks.
Results highlight the need to include more specifically ethical aspects in the teacher frameworks and inside teacher education programs. Teacher training programs are the initial place to acquaint new teachers with the moral dimensions of their chosen profession. Teacher education should shift to the formation not only of knowledge and skills but also of the moral sensibility that underlies them (Burant et al., 2007; Campbell, 2008). Further discussion is around the question of the development of professional code of conduct to illuminate ethical dimensions of teaching practice (Warnick & Silverman, 2011).

**Keywords:** Ethic dimension in teacher competences frameworks from a global perspective

**TEACHER’S CODE OF ETHICS**

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**Abstract:**
Currently, in Poland, it is possible to observe growing interest in the issue of a code which would regulate the work of teachers and school principals. Attempts to create a code of ethics in the teaching profession prove that codes of this kind are deontological and display activities in accordance with duty, vocation or ethos. They refer to what is perceived as necessary from the perspective of factors deciding about one’s moral behaviour, within which values considered as particularly significant are nurtured and implemented.

The paper critically discusses selected results of the nationwide research on the ethics of teachers in Poland. The research was conducted within a project entitled “Ethics in the education system in Poland and in selected countries of the Western world (Germany, Great Britain, Spain, Portugal, France, USA, Norway, Finland)”, financed as part of the National Program for the Development of Humanities of the Ministry of Science and Higher Education in 2013-2019. The research assumed that teaching profession is an ethical profession.

The paper presents the results regarding the need to adopt a generally binding teacher’s code of ethics, its formal regulations and potential effectiveness. The research questions were formulated in the following way: 1. Do teachers believe that it is necessary to implement a universally applicable teacher’s code of ethics? 2. What do teachers think of the formal (legal) authorization of the teacher’s code of ethics? 3. What do teachers think of the potential effectiveness of the teacher’s code of ethics in the field of regulating teachers' attitudes and ethical behaviour?

The research was the example of the study that is original in its nature as it was the first of this kind in Poland. The research was based on the survey with an online questionnaire form entitled: The code of the teacher’s ethics, designed especially for the needs of the research, which underwent standardization. The questionnaire consisted, among others, of a 7-point Likert-type scale in order to increase the accuracy of the survey. It also included open-ended questions, which made respondents create their own answers.

The research was nationwide and was carried out in 2018. The research involved teachers from all types of schools in Poland. In total, one sent 25131 e-mail invitations. In response to the invitation addressed to teachers, a total of 2 780 questionnaire forms were obtained.
Research shows that teachers' attitude to the idea of introducing a code of ethics has not yet been fully crystallized among the teachers in Poland. In continuing education of teachers, formal, informal and non-formal teacher education with the attention to teaching as high quality and ethical profession should play an important role, contributing to the strengthening of teachers' professionalism.

The paper presents some recommendations for teacher education policy. Their implementation can be useful in strengthening teaching profession in Poland through paying attention to the issue of status of teacher's code of ethics and teacher professionalism. The answers to the research questions have the potentials to contribute to the scientific knowledge in the field of teacher education and teacher education policy in Poland.

**Keywords:** teaching as high quality profession; teaching as ethical profession; teacher's code of ethics; the necessity and effectiveness of the teacher’s code of ethics; teacher professionalism; teacher education and teacher education policy

**CREATING CHANGE: It takes children to create society, children’s perspectives as a prerequisite for making policy**

_Signe Juhl-Nørgaard; University of Helsinki_

**Abstract**

Earlier work in Denmark (Møller & Tenenbaum, 2011 and 2018) shows that recent reforms and legislations of school values seems inadequate to challenge how Danish majority children tend to choose friends based on biases, i.e. ethnic Danish children had higher sociometric status (i.e., they were the “popular” children) than minority children and children preferred majority children as friends to minority children (Wagner et al., 2008).

Recent interviews shows a decrease in reasoning and an increase in children’s unreflected referral to the implemented rules and legislations, as informed by the schools value statements which is based on: “The Ministry of Education’s Executive Order on promoting good order in primary school.”, implemented in collaboration between school management and employees as: “The rules and laws of values” and referred to on their web page. In line with a statement in the Altinget (as a plea to the ministry) by the Nordic Network of children and youth researchers, the last years of regulating schools have lead to an increase in problems furthermore as children being posed as the problem. To make schools a place children feel they belong to and can relate to, a democratic approach is suggested, addressing children as policy makers. This demands a focus on the way teachers are trained in organizing activities in the classroom.

The study is methodologically informed by a cultural-historical approach, realising children’s perspectives within cultural, digital and aesthetic arenas of activity settings. It combines this with interaction-based observation (Hedegaard 2013) merged with the use of technology.

A digital framework is proposed as an approach for teachers, to create playfully engaging and challenging aesthetic scenarios to foster relatedness and belonging across ethnic groups. Aiming at children’s agency in creating ethical sustainable environments, emphasis is on children’s engagement in moral dilemmas and how the teachers are trained to handle these relations. Children’s engagement in digital arenas and studies of children’s play, show that children are more
open to creative suggestions when part of a playful situation (Møller 2014). This ongoing project extends past research within cultural-historical and cognitive domain theory, to present a theoretically based artistic and anthropological approach, in which a trainee teacher engage children in an interactive game intervention informed by work on moral reasoning and creative imagination (Møller 2015, 2016; Møller & Tenenbaum, 2011). Using a graphic novel-inspired interactive story, the child’s game characters (the main avatar as well as the non-playable characters), visual elements and speech are informed by children. The scenarios are based on ethnic bias from both the perspective of the ethnic majority as well as the ethnic minority. The aesthetic and interactive dimension seeks to involve children, while engaged in a playful setting, to foster relatedness and belonging reducing biases utilising moral dilemmas on peer exclusion.

**Keywords:** playfulness; moral dilemmas; change; ethical sustainable environments

**Group I, 14th of May, Thursday, 14:00 – 15:15 (Finnish time)**

**Unpacking the Understanding and Development of Teacher-Researchers in Initial Teacher Education in Kosovo**

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**Abstract:**

The teacher-researcher is considered a prevailing concept in the post-professionalism age of teacher preparation. The development of teacher-researchers has been discussed alongside reforming initial teacher education programs into research-based. The emphasis of developing of teacher-researchers is on blurring the boundaries of research and practice and on conceptualizing practice as a critical and theory-building process. As such, the teacher-researcher movement is not considered a short term ‘fuss’ in the discourse of education reform but stems for a rather long term and sustainable approach to improving teacher quality culture. However, there is no consensus reached regarding the understanding and methodologies contributing to teacher-researcher development. The study examines how initial teacher education in Kosovo contributes to student-teachers’ understanding of the meaning and purpose of education research and development of research knowledge and practice towards their advancement into teacher-researchers. Using qualitative methods, the study analysed an open questionnaire conducted with (N=270) student-teachers, semi-structured interviews conducted with (N=15) teacher educators, analysed (N=5) study program documents and syllabuses, and (N=352) student-teacher assignments during 2017/2018 and 2018/2019 academic years. Healey and Jenkins research curriculum categories were used as a guiding framework. The findings support the following conclusions: i) the understanding of teacher-researcher concept within initial teacher education is influenced by teacher educators’ field of study and program goals and values, ii) teacher educators and program values and goals hold an influencing power on the development of teacher-researchers and can adversely influence future teachers’ practical engagement in research, and iii) the conflicting institutional governing variables prompt a fragmented context of teacher-researcher development that emphasises the need for coherence. Hence, to address contradictory understandings and fragmentation, the study recommends a concerted, yet flexible holistic approach for teacher-researcher development.

**Keywords:** initial teacher education; program goals and values; teacher as researcher; teacher educator
A question of ethics; ethical responsibility in teacher-research policy and practice

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Abstract:
Introduction: Recent education policy change has positioned practice-based research as a tenant of the professional role of the teacher, yet policymakers, particularly in the Irish context, have not explored the question of ethics in teacher-research. The aim of this paper is to explore who is responsible for ethical teacher-research and how can ethics be governed? This paper argues that in order for research-based teacher education policy to be sustainable and practical at school-level, a new framework for supporting teachers’ ethical research must be developed. This position paper will contribute to the existing knowledge base on teacher education policy by presenting a series of recommendations for the governance of teacher-research ethics as a facet of sustainable teacher-research policy.

Policy Context: It is widely accepted that teachers have a ‘responsibility to develop new knowledge about education and training’ (European Commission 2007, p.14). Teacher education in Ireland and other European countries (Finland; Sweden, Norway, Scotland) have begun to develop research-based teacher education programmes that develop research literacy skills amongst preservice teachers. This shift is largely positive, as research-based education has positive outcomes for the profession (BERA 2011; Mincu, 2014). In Ireland, newly qualified teachers are expected to engage with and in research as part of their professional role. The professional standards body, the Teaching Council have dedicated significant resources to developing teachers as ‘reflective practitioner’ and ‘researcher’ within Teacher Education (2017, p.14) and the Professional Development Framework (Cósán 2017).

The research in which teachers engage is often described as ‘what works’ research (Arthur and Davies 2010; Winch, Orchard and Oancea, 2014). Teachers are encouraged to approach a topic such as curriculum planning, home-school communication or differentiation and trial interventions based on evidence or gather empirical data in order to enhance their professional knowledge and practice. New funding frameworks (John Coolahan Fund) and forums (Féilte) have been developed concurrently for teachers to disseminate their findings. This paper will contextualise the challenge of ethical oversight by introducing the landscape of research-based teacher education and teacher research in Ireland providing examples of the practice-based research conducted.

Conclusions and Recommendations: This paper foregrounds the topic of oversight for ethical teacher-research, an issue which remains unaddressed by policymakers and stakeholders in the design or implementation of current policy in teacher education. Teaching is considered ‘an inherently ethical profession’ (Teaching Council, 2020), and teachers are expected to self-regulate when it comes to ethical research practice. Yet, to successfully conduct teacher-research, teachers need access to a group of students, often their own, making them invested in the outcome and subject to ethical dilemmas. This paper asks who has responsibility for ethical teacher-research and argues for a supportive process of oversight as an essential intervention to help policy to be adopted and embedded in practice.

Drawing upon contemporary literature, discourse and small-scale data from school-based governance committees, this paper will foreground the challenges faced by teacher-researchers, schools and policymakers who wish to support teacher-research in practice. Finally, this paper will
draw on research and literature from other professional bodies e.g. Medicine and Nursing, to present a mechanism for ethical oversight, which could assist education policymakers to maintain the quality, rigour and professional nature of teacher-research, on par with other empirical research.

**Approaches to data-informed practices in teacher teams**

*Katrin Rääk & Kairit Tammets;* School of Educational Sciences in Tallinn University

**Abstract:**
In educational discussion and policy-making, the focus on evidence-driven education practices and their implementation in school development processes have become more and more prevalent. Research has found that only when teachers of all levels engage in school development can successful school reforms be implemented (Hansen & Wasson, 2016). However, some factors, such as lack of data literacy skills, insufficient collaboration, and an unsupportive school culture, can significantly hinder such school development processes (Schildkamp, Poortman, Luyten & Ebbeler, 2017). Collaboration, it has been found, has a positive impact on the performance of an institution, it strengthens the process of data use in teams (Schildkamp, Smit & Blossing 2017a, Tai & Kareem, 2018) and also impacts positively the performance of the institution (Schildkamp et al, 2017). Furthermore, having teachers who are innovators, researchers, and knowledge builders, help create innovative practices and contribute to the work of their professional community (Hansen & Wasson, 2016). Studying the competencies of teachers using data in collaboration is thus a crucial aspect in raising the awareness of schools that are trying to execute change.

The purpose of the study was to determine the attitudes, competencies, and practices of Estonian teachers in making more informed decisions based on the data available for them with a view of improving instruction and student learning outcomes as well as supporting school development. The research questions were: What are the teachers’ attitudes to data and their practices and competencies in working with evidence? The sample was narrowed to small teacher teams from six schools that partake in the university-school joint programme Future School that helps schools with sustainable educational policies. The research design for the purposes of the paper was mixed method research design. The results were gained from open-ended interviews and a survey based on the teachers’ attitude to data, their data knowledge, and data use. By researching teachers’s attitude to data use and their overall competencies, it becomes evident that the available data that teachers have are not fully optimised for a variety of reasons, and that teachers lack necessary skills or support to do so. Additionally, our research uncovered the key issues that teachers have with data use, such as insufficient support from the school leaders.

**Keywords:** Evidence-based education practices; Data teams; Collaboration; Professional Learning Community

**A sustainable workforce through Initial Teacher Education (ITE): a new waste management policy?**

*Mark Carver and Paul Adams*
Mark Carver, United Kingdom, University of Edinburgh; Paul Adams, United Kingdom, University of Strathclyde
Abstract:
This paper seeks to reframe Initial Teacher Education (ITE) evaluation with respect to teacher retention, challenging the notion that teachers need to be ‘classroom-ready’ upon graduation and that teacher attrition is largely a failing of ITE. We draw upon Boud’s (2000) concept of sustainable assessment, emphasising the tension in meeting today’s needs without sacrificing the needs of the future, and Sadler’s (2010) concept of self-guided critical appraisal as part of the reflective practice of a lifelong professional learner. Transposing these concepts into ITE highlights limitations in measures currently used to make policy positions, most notably ‘wastage rate’, which counts any teacher not in the state-funded school sector in Scotland (excepting short-term or maternity leave) as ‘wasted’, a term imbued with covert meaning and intent.

Our data comes from the six-year, Scottish Government funded project, Measuring Quality in ITE (MQuITE). This project has a broad remit to look at existing data collection and use, supplementing data where possible, and conceiving of a measurement framework which combines internationally-relevant comparisons with measurement nuanced and localised for the Scottish context. From data gathered as part of both online questionnaires and in-depth individual interviews, notable themes have emerged concerning the concepts of teacher wastage and loss from the profession across Scotland. These data suggest that, as it is currently measured, wastage rate is too pessimistic given teachers’ contemporary career paths and aspirations which may include working in schools in the private sector, other education-related jobs, working in other parts of the UK or overseas, or taking up roles within further and higher education. In the longer-term, the statistical invisibility of such teachers may even serve to limit their (perceived or real) opportunities to return to state-funded schools if their intervening experiences are not valued.
When examined in the light of Scottish ITE, it becomes apparent that this policy orientation is reductive in conceptualising ITE in two ways: as failing if the numbers of those remaining employed in schools falls; and, as only serving to provide schools with teachers. This orientation runs the risk of denoting education as solely taking place in schools, and that the work of a teacher is only of benefit if it is carried out therein.

As its main contribution, this paper argues for more nuanced and qualitative measures and uses of teacher retention data. It therefore highlights three themes: how students/inductees position themselves and their own career destinations as related to their ITE; how student teachers and inductees conceptualise teaching in Scotland as opposed to alternative career choices; and, how ITE relates to teachers’ lifelong learning. As a secondary contribution, the paper sets out a case for reconceptualising how support is offered to teachers throughout their career. It therefore challenges the idea of front-loaded initial teacher education and problematic concepts of being ‘classroom-ready’, argues that schools and professional bodies currently undervalue what may be useful professional learning experiences overseas or in other sectors, and argues for a reconsideration of the underpinning aims for ITE with regard to teacher supply.

Keywords: teacher retention; career-long professional learning; career transitions; initial teacher education destinations