

**TEPE 2022 Conference**

**11th-13th April 2022**

**University of Graz**

**Abstract Book TEPE Conference on Enhancing  
the value of teacher education research: Implica-  
tions for policy and practice**

*We work for*  
**tomorrow**

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 **tepe** Teacher Education  
Policy in Europe

**G R A Z**

### Explanation of Symbols.



Poster session



Paper session



Symposium session

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## Preface

The theme of the 2022 TEPE conference provokes us to think about the value of research in and on teacher education by exploring the various dilemmas facing teacher education research and the implications that emerge for policy and practice. Although research in and on teacher education has increased over the past decade, the value of teacher education research continues to be questioned by other academic disciplines, policymakers and even teachers themselves. This is partly because teacher education has not yet found its footing in the landscape of higher education (Zgaga, 2013), while the understanding of what research-based teacher education means often differs between policymakers and teacher educators (Smith, 2015).

To enhance the value of teacher education research, it is crucial to examine the dilemmas inherent to this field. It is for example one thing to speak of research as a segment of the study of future teachers, and another to speak of research as a necessary task for teacher

educators. In the first case, we are talking about the value of research in teacher education, while in the second case about the need to produce research that focuses on the practice of teacher education. When it comes to research on teacher education, another tension that emerges is utilising the variety of research methods available, while also paying attention to interdisciplinarity. Teacher education researchers have often been urged to conduct large-scale and longitudinal studies, or ensure that the small-scale studies are linked in order to systematically develop a knowledge base for the field (Mayer & Oancea, 2021). Without such a knowledge base, the potential of teacher education research to inform policy proves to be minimal (Darling-Hammond, 2016). At the same time, teacher education research should avoid the risk of becoming obsolete for the practice, finding instead meaningful ways to connect with the reality of teacher education institutions.

**To help us bridge those dilemmas, the conference aims to address a number of deeper questions such as:**

- What is the purpose of research in teacher education? What is the value of research-based teacher education, and what do we mean preparing teachers as researchers?
- Which are effective ways to produce a knowledge base for teacher education? What is the value of small-scale practitioner-based research and why is it important for teacher education? What kind of indicators we need for standardised monitoring studies in teacher education and who should be defining them? Which are future research topics relevant for the field?
- How can teacher education research inform policy? How is policy utilising teacher education research? How is the governance of teacher education influencing research in the specific field?
- What is meaningful research for teacher education practice? How can we design research and curricula that have an optimal impact on the practice of teachers, teacher educators and student teachers? How can we avoid the risk of teacher education research becoming obsolete for the practice?

We would like to take up and discuss these and similar questions at the 16th Annual Conference of the **TEPE Network**, which will be organised from **11th to 13th April 2022** by the Institute of Education Research and Teacher Education at the University of Graz, Austria. The event is organised in partnership with the Center for Teacher Education at the University of Graz and is supported by the teacher education section of the Austrian Society for Research and Development in Education. In detail, these questions will be explored through keynote speeches, parallel thematic sessions, panels and working sessions on four main topics, namely:

**Theme 1:** The value of research in teacher education: Research-based teacher education and the role of teachers and teacher educators as researchers.

**Theme 2:** The value of research on teacher education: Innovative approaches in conducting teacher education research at pre-service and in-service levels.

**Theme 3:** Teacher education research and policy: The potential of research to inform and evaluate the impact of policy.

**Theme 4:** Teacher education research and practice: Designing research and curricula that are meaningful for the practice.

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## Organizing & Scientific Committee

### Scientific Committee

**Dr. Vasileios Symeonidis** | University of Graz, Austria

**Prof. Heike Wendt** | University of Graz, Austria

**Prof. Eve Eisenschmidt** | Tallinn University, Estonia (TEPE Chair, 2020 – Today)

**Prof. Marco Snoek** | Hogeschool van Amsterdam, Netherlands (TEPE Chair, 2020 – Today)

**Assoc. Prof. Björn Åstrand** | Umeå University, Sweden (TEPE Chair, 2007–2010)

**Prof. Brian Hudson** | Karlstad University, Sweden, and University of Sussex, England (TEPE Chair, 2010–2014)

**Prof. Joanna Madalińska-Michalak** | University of Warsaw, Poland (TEPE Chair, 2016 – 2020)

**Prof. Erika Löfström** | University of Helsinki, Finland

**Assoc. Prof. Helle Plauborg** | School of Education, Aarhus University, Denmark

**Prof. Pavel Zgaga** | University of Ljubljana, Slovenia

**Prof. Maria Assunção Flores** | University of Minho, Portugal

**Assoc. Prof. Nina Kilbrink** | Karlstad University, Sweden

**Assoc. Prof. Anna Lindqvist** | Umeå  
University, Sweden

### Organizing Committee

**Dr. Vasileios Symeonidis** | University of Graz,  
Austria (Chair)

**Prof. Heike Wendt** | University of Graz, Aus-  
tria

**Prof. Barbara Gasteiger-Klicpera** | University  
of Graz, Austria

**Dr. Selina Weigl** | University of Graz, Austria

**Prof. Johannes Reitinger** | University of Vi-  
enna, Austria

**Dr. Gabriele Schauer** | University of Inns-  
bruck, Austria

# Final Conference Programm

## Monday, 14 th April (Meerscheinschlössl)

14:30-16:00	<b>Registration</b>
16:00-16:30	<b>Opening of the TEPE 2022 Conference</b> <b>Vasileios Symeonidis</b> , Institute of Education Research and Teacher Education, University of Graz, Austria <b>Rudolf Egger</b> , Dean of the Faculty of Environmental, Regional and Educational Sciences, University of Graz, Austria <b>Heike Wendt</b> , Head of the Institute of Education Research and Teacher Education, University of Graz, Austria <b>Marco Snoek</b> , TEPE Board Chair, Amsterdam University of Applied Sciences, Netherlands <b>Maria Assunção Flores</b> , TEPE Board Chair, University of Minho, Portugal
16:30-18:00	<b>Keynote by Teresa O’Doherty</b> , Marino Institute of Education & Trinity College Dublin, Ireland <i>Research in and of teacher education: implications for policy and practice</i>
18:00-20:00	<b>Welcome Reception</b>

## Thursday, 12th April

09:00-10:30	<b>Parallel Sessions</b> (LS 15.01, LS 15.02, LS 15.03, HS15.02)
10:30-11:30	Coffee Break (RESOWI Foyer)
11:00-11:00	<b>Keynote</b> by Charalambos Y. Charalambous, University of Cyprus, Cyprus (HS 15.03) <i>What can’t large-scale studies tell us about the contribution of teacher education and qualifications to student learning a critical reflection of the literature</i>
12:00-13:30	Lunch Break
13:30-15:00	<b>Parallel Sessions</b> (LS15.01, LS 15.02, LS 15.03, HS 15.02)
15:00-15:30	Coffee Break (RESOWI Foyer)
15:30-17:00	<b>Parallel Sessions</b> (LS15.01, LS 15.02, LS 15.03, HS 15.02)
17 :00-18 :30	<b>Poster Presentation</b> (Resowi Foyer)

## Wednesday, 13 th April

09 :00-10 :30	<b>Parallel Sessions</b> (LS 15.01, LS 15.02, LS 15.03, HS 1502, Online)
10 :30-10 :45	Coffee Break (RESOWI Foyer)
10 :45-12 :15	<b>Parallel Sessions</b> (LS 15.01, LS 15.02, LS 15.03, HS 15.02)
12 :15-12 :45	Coffee Break (RESOWI Foyer)
12 :45-13 :45	<b>TEPE Panel Discussion</b> (HS 15.03)
13 :45-14 :00	<b>Closing of the conference</b> (HS 15.03)

## Keynote speeches



Teresa O'Doherty | Marino Institute of Education, Ireland

### **'Research in, on and of teacher education: implications for policy and practice'**

Taking the Irish education context as a case study, this paper examines the turn towards 'teacher as researcher' taken within teacher education over the last decade. While the commitment to research in, on, and of teacher education has been evident for some decades, and was rooted in the establishment of the Educational Studies Association of Ireland in 1977, there has been an absence of any policy commitment to research in teacher education until very recently. Since the establishment of the Teaching Council in Ireland in 2006, a raft of policy documents and statements which articulate the centrality of research to the preparation and development of teachers has been published. Developing research skills has become an integral part of all teacher preparation programmes and all student teachers complete either undergraduate dissertations or master's theses. However, this work has developed in the absence of investment in research. The promotion of a research culture, while echoed and valued by many actors across the educational landscape, remains under funded and where research bursaries have been made available, they are of low monetary value and fragmented. To enable research in education and teacher education to thrive, a concerted effort is now required to adequately support teachers and teacher educators, research teams and communities to collaborate and to create a research culture which is pivotal to promoting quality teacher education across the continuum of education.



## **What Can('t) Large-Scale Studies Tell us About the Contribution of Teacher Education and Qualifications to Student Learning: A Critical Reflection of the Literature**

Over the past decades significant research efforts have been invested on understanding how teachers contribute to student learning. These studies have examined the effect of various teacher education and qualification characteristics (e.g., initial preparation, teaching experience, sense of preparedness, professional knowledge and competencies, participation in professional development activities) on different aspects of student learning. Focusing on large-scale studies conducted in this realm, this presentation summarizes prior related work, pointing to both convergent and divergent findings, and discussing the promise of this work for understanding how teachers contribute to student learning. Adopting a critical lens, the presentation then points to limitations of such work and suggests how such large-scale studies can be complemented with other research work, attempting to better explain what contributes to student learning.

## Theme 1: The value of research in teacher education



Fjolla Kacaniku | University of Prishtina, Kosovo

### **Making research relevant, useful, and meaningful for future teachers: Fostering a problem-solution oriented research model in initial teacher education**

The teacher-researcher is a prevailing concept in the post-professionalism age of teacher education. The development of teacher-researchers is discussed alongside improving the quality of future teachers. However, future teachers often question the purpose and value of teacher education research for the teaching profession. At present, only a tiny portion of educational research is undertaken by practicing teachers: the vast majority of such research is conducted by university-based academics. The purpose of this study is to examine the impact of a problem-solution oriented research model in changing student-teacher attitudes regarding the perceived purpose and value of teacher research in ITE in University of Prishtina. The study used an action research design, with a pre and post-intervention questionnaire (adapted from Van Katwijk et al., 2021) followed by group interviews. In the pre-intervention phase, 112 student-teachers from 8 Master subject teacher education programmes participated by filling out the questionnaire. We have developed a problem-solution oriented research model when teaching research methods courses in ITE programmes. The main intention of the model is to enable student-teachers to view research as a tool to plan, tackle, and improve different education problems in their current and future practice. The model comprises 10 steps, each designed to introduce different aspects of research in terms of problem-solution oriented research for the teaching profession to make research more relevant, useful, and meaningful for future teachers toward influencing a change in student-teacher attitudes regarding perceived purpose and value of teacher research. For a more in-depth explanation of changes in student-teacher attitudes regarding the perceived purpose and value of teacher research, 16 student-teachers participated in a group interview. The initial data analysis shows promising results. Although data from the pre-intervention phase indicates that student-teachers do not perceive research to be valuable and do not expect to undertake research in their future teaching jobs, data after the intervention indicates a positive change in student-teacher attitudes regarding research. The majority of student-teachers believe research to be valuable and perceive learning outcomes of research to be enriching toward solving pressing education problems in their future practice.

**Keywords:** teacher research, ITE, problem-solution oriented research model



## The Significance of Research-Based Training of Masters of Education in Ukraine

In Ukraine, teaching is expected to be a research-informed and evidence-based profession that requires completing a master's degree. Graduate teachers who write master's thesis will become well-informed professionals capable of improving pupils' outcomes. However, until 2014, completing a master's thesis in Ukraine was not a mandatory component of master's education. This requirement came into force with the Law on Higher Education (2014) and prompted teacher educators and policymakers to develop appropriate educational standards according to which, 10 ECTS credits are allocated for writing a master's thesis out of 120 ECTS credits for master's degree training. Completing the master's thesis involves conducting a mandatory evidence-based pedagogical study at school (2021). To carry out such a study, student teachers must acquire innovative and reflexive competencies, defined as mandatory in the Professional Standard for Teachers (2020). The study focuses on the reasons, motivating factors, necessary skills and challenges for student teachers to accomplish a master's degree and complete the master thesis. Interview questions of the study focused on the values and terms for developing innovative and reflexive competencies and readiness for small scale practitioner-based research through obtaining the master degree. The research was carried out at a faculty of education at a national university in Ukraine. A total of 18 student teachers took part in a survey. The sample comprised participants' responses who obtained a Master of Education degree. Perceptions of student teachers have been collected through an online survey. The findings present teachers' motivations for obtaining the master degree and are strongly linked to their beliefs of research-based study value and its impact on developing innovative and reflexive competencies. Data show that master study and evidence-based research enabled them to adopt an informed and critical approach to teaching and learning, to develop the attitude, skill-set that encouraged them to complete a substantial piece of research. The authors acknowledge that the sample size is small, the study can contribute to the value of research-based teacher education, and improve existing ways of preparing teachers as researchers and review and update master degree standards, curricula that have an impact on the practice of teachers, teacher educators and student teachers.

**Keywords:** student teachers, Master of Teaching/Education degree, research-based teacher education, innovative and reflexive competences.



## Research for Teacher Education - Participatory research inspiring the development of teacher education curricula

Research can play different roles within teacher education:

- It can strengthen the international knowledge base on the education of teachers by studying outcomes of teacher education programmes ('research on teacher education').
- As part of the curriculum it can aim to educate teachers as inquiring professionals that use inquiry and research to feed their daily practice ('research in teacher education') (Toom et al, 2010).
- When teacher educators are role models for their students, they should use inquiry and research to feed and inspire the (development of) teacher education programmes (Smith, 2005) ('research for teacher education').

The main aim of research for teacher education is to feed the process of curriculum development. This type of practitioner research (Cochran-Smith & Lytle, 2009) can be understood as 'research that is relevant to the practice field' (Smith 2015) - in our case teacher education.

Within a project to strengthen a whole child perspective (WCD) we use such a research for teacher education' perspective to support the process of curriculum development. The WCD perspective emphasizes that the role of teachers is wider than supporting cognitive development of pupils, as schools need to support the social, moral, physical, creative, emotional and religious development of pupils. This creates challenges for teachers that need to be addressed within teacher education.

Within the project, four teacher education institutes collaborate in the development of WCD approaches within the TE curriculum. In the project, curriculum development is understood as an ongoing dialogue moving iteratively between intention, design and daily action. Through a qualitative and participatory research approach, underlying vision, values and intentions, the implications for the design of the programmes and the impact on the practice and acting of teacher educators and students is constantly monitored to give feedback during the development process (Mayo & Modderkolk, 2020). Research oriented activities such as data collection, analysis, and evaluation provide the foundation to collectively reflect on, evaluate, and reshape the learning environment of students to strengthen the alignment between the intentions and goals of the project and the actual experiences of our students.

In our presentation we will illustrate how this approach is translated to a qualitative and participative research design that supports and inspires curriculum development.

**Keywords:** Teacher education, curriculum innovation, participative research



## **Unravelling framings of preferred prospective primary teacher identity: an analysis of Ireland's national codification framework for teacher education**

**Research aim:** This paper deconstructs the ethico-political teacher identity of the prospective Irish primary-school teacher as prescribed in Ireland's teacher competence framework, the Initial Teacher Education Criteria and Guidelines for Programme Providers (2017).

**Theoretical Framework:** Adopting a Foucauldian analysis framework (Foucault 1985), further developed by Clarke (2009), we employ the four interrelated ethico-political axes of teacher identity (the ethical substance, the authority-sources, the self-practices and the telos of teacher identity) as our theoretical analytical frame.

**Methods:** Drawing from the critical discourse analysis tradition, and adopting Clarke's (2009) ethico-political framework, the study undertakes a thematic analysis that seeks to understand (i) the preferred ethical substance, self-practices and telos of teacher identity and (ii) the preferred' discursive practices that enable it.

**Findings:** Findings illuminate this identity as (i) telos vis-à-vis embodying national policy objectives via critical engagement underpinned by knowledge surfaces that provide a temporal appreciation of policy; (ii) ethical substance vis-à-vis seven modes of reflexive engagement animated in two interdependent phases with unique practice dynamics and policy emphases; (iii) discursive authority sources that utilise three major modes of engagement and sense-making; (iv) self-practices as confessional dialogue and self-writing.

**Contribution:** This paper (i) extends Foucauldian readings of teacher education, specifically a national codification framework; (ii) considers (trans)national proliferations of codified teacher competence frameworks as politics of truth in teacher education; (iii) extends calls for greater attention to macro-reading of teacher identity constructions in teacher education policy texts; (iv) deconstructs prescribed ethico-political identity in terms of telos, ethical substance, discursive authority sources and self-practices.

**Keywords:** ethico-political teacher identity; teacher competence frameworks



## Developing Researcher Identity as Teacher Educator and Cultivating Postgraduate Research Communities

The paper explores the development of the professional identity of prospective teacher educators in their doctoral journeys, and how the formations of their identity as teacher educators and researchers affect their experiences in the process of supervision, especially in the context of the turn towards increased online and digital modes of engagement. Online study, however, fundamentally changes the conditions for presence and research community building. The paper draws on the literature on participatory supervision, communities of practice and the notion of social presence. Using a constructivist and interpretivist methodological approach, semi-structured interviews were conducted with six highly motivated and goal-oriented doctoral students from four countries across two continents. The stories of doctoral students enabled unique insights into various themes and concerns in the process of undertaking a doctorate and becoming a researcher and teacher educator. Crucially, postgraduate supervision is seen as a personal journey of discovery, leading to the creation of a strong personal identity as a researcher, wherein the role of supervisor is seen as more that of a mentor who creates a supportive, yet challenging space for this to happen. The data suggests that while digital modes of learning have become an increasing reality, physical forms of educational interaction continue to have value for researcher identity formation of the prospective teacher educators. In this regard, social presence' emerges as a critical dimension in the practice of research in a technology mediated environment. Moreover, the influence of the academic world of universities, including postgraduate research communities is an important factor in formation of the prospective teacher educators identity as researchers. The paper concludes with some recommendations on the value of research in teacher education, stressing that doctoral education programs should attach importance to the ethical preparation in conducting scientific research, as the methodological context of research work cannot be separated from ethical considerations, which are directly connected with the identity formation of emerging researchers who have the ambitions to be a part of academia and perform the role of teacher educators.

**Keywords:** the value of research in teacher education and postgraduate studies, professional identity of prospective teacher educators, doctoral studies, emerging researchers, research communities, participatory supervision, social presence, online study



## More than a rite of passage? Debating the relevance of research with student teachers

Student teachers in ELT (English Language Teaching) Master's programmes often have to carry out research projects as part of their degree. This has to be seen in the context of an understanding of research as a vehicle for professional development (Burns, 2009) and a view of teachers as active participants in knowledge construction rather than passive recipients of knowledge (Kostoulas, 2018). However, student teachers may feel that the final stages of their degree are dominated by research at a time when they would prefer to focus on their teaching. In the worst case, they perceive their research projects as more of a rite of passage than a real contribution to a better understanding of language learning and teaching (Maley, 2016), which can result in a persistent belief that research has little to no relevance for their classroom practices.

In this talk, we will present a small-scale project we carried out together at a secondary school and share both our perspectives (one of us is a student teacher, the other a university instructor) on the process and the results. At the time of the project, the student teacher was in her first year of teaching and simultaneously completing an ELT Master's programme. In an attempt to apply ideas she encountered in her academic studies to her teaching, she decided to investigate her pupils' reaction to Linguistic Landscape (LL) tasks which had been designed in one of the instructor's university courses. The tasks went through a process of feedback and revision by the student's peers and her instructor at the university before they were trialed with the pupils in class. The pupils then recorded their reactions to the tasks in a questionnaire.

Taking the student teacher perspective as our starting point, we will explore ways of setting up student research projects that generate results which are perceived as meaningful and applicable to practice by the student-researchers. We will discuss how projects such as ours can be characterized (classroom research, action research, exploratory practice, etc.; Freeman, 2018) and how they can contribute to teacher professional learning by including all three domains identified by Koffeman and Snoek (2019) as relevant for teacher learning: personal practice, social and theoretical. Finally, we will discuss how schools and universities need to cooperate to promote the professional learning of teachers and what policies are needed to incentivise this kind of cooperation.

**Keywords:** teacher education for English Language Teaching (ELT), value of student research, school-university cooperation in teacher education



## **Technology teachers' experiences of teaching with models and modelling represented with digital tools**

In Swedish compulsory school, pupils are supposed to develop digital competence. The technology subject for lower secondary school (pupils at age 13-15) serves several opportunities for pupils to work with and develop their digital competence. For instance, when pupils are working with designing models and at the same time are using digital tools. The aim of this study, conducted within a research school with teachers as researchers, was to develop knowledge about teachers' experiences of teaching with models and modelling represented with digital tools. Swedish technology teachers have been interviewed about their experiences of this teaching, and the interviews have been analyzed using theoretical and phenomenographical approaches. The results show that the teaching has more learning outcomes than are expressed by the teachers. Based on the results, it is arguable that it is important for teacher students, as for in-service teachers, to notice, identify and conceptualize these non-expressed outcomes when planning and enacting their lessons. With this poster session, some examples of outcomes when teaching with models represented with digital tools are presented; a possible teaching progression; and finally, the importance of interweaving theoretical and practical elements from this specific area of technology education, and how this could be done in practice.

**Keywords:** technology education, digital tools, teacher experiences, models



## Reimagining Initial Teacher Education in an Irish Context: Incorporating Graduate Experience into the Process

The purpose of this paper is to examine the process of ITE programme reaccreditation, and the incorporation of graduate experience into programme redesign, in an Irish context, due to the revision of programme accreditation guidelines published by the state regulatory authority in 2020. In accordance with the Standards for Initial Teacher Education (Teaching Council, 2020), institutions must strive to connect 'the best of quality teacher education...with the most innovative, exciting and caring practice led by our profession (Teaching Council, 2020, 2). Darling Hammond et al (2017) argues that in order to build a strong profession, there must be an interdependence amongst standards, preparation and supports during the ITE phase of the journey. Parker Jenkins and Masterson (2013) state that as diversity in the classroom increases in Ireland, we need to raise awareness of diversity and embed good practice into a curriculum which also reflects the heritage of students in schools. We are also challenged as educators to embrace 'difficult knowledge' in our part in responding to the climate crisis (Britzman and Pitt, 2004) to advance a social ecology of responsibility that promotes a deep understanding of the climate crisis. Policy changes that resulted from the UNCRC in Ireland included the recognition of children and young people as active citizens worthy of being listened to and having agency. Therefore the reflection of all voices in any redesign process is pivotal. The question posed used focus group methodology to gather the lived experience of graduates of a four year undergraduate programme at a university level institution in Ireland. Specific theme emerging include, School Placement as Key Learning Experience, Balancing Teaching and Assessment, Curriculum Methods Modules as Key Learning Experiences, Making Connections with Foundation Subjects and Opportunity for a Reflective Environment. The initial findings have programme implications for future ITE programmes. These, coupled with core competencies adopted by the Teaching Council, require a thorough examination of content and student experience. Finding a balance in programme professions and reflective space is a challenge to overcome.

**Keywords:** Programme Accreditation, Programme Review, Reconceptualisation, Graduate Experience



## Considering the value of research in teacher education for teachers and preservice teachers: contested and fertile policy spaces and practices in Europe, England and Ireland

Robertson and Bond (2001) highlight a link between research and teaching, suggesting that they share a mutually beneficial relationship within a learning environment. Setting up a discourse with, and among, those across the teacher education continuum to enable them to see this link and appreciate the impact research has for their practice is crucial. Enabling teacher educators, teachers and pre-service teachers (PSTs) to recognise that research will enhance their awareness of student learning, nuances in the complexity of the classroom, and their role in the teaching and learning process (Chant, Heafner and Bennett 2004; Mooi and Mohsin 2014; Rock and Levin 2002) is vital to teacher (professional) development and ownership of that development.

This symposium explores the value of research in teacher education and specifically the role of teachers and PSTs as researchers.

The first paper, contextualised in the latest iteration in the radical transformation of teacher education in England, explores the need for strategies and approaches that enable teachers to enact their professional agency to make context specific decisions through critical engagement with relevant research. This paper aligns with the deeper question of 'What is / should be the purpose of research in teacher education?'

The second paper, reporting on the Irish Teaching Council's (2020) revised standards for initial teacher education (ITE) programmes, explores the discourse stemming from the research-informed/research-based debate to conceptualise the place of research in ITE and the relevance of research to PSTs' professional learning and development. This paper aligns with the deeper question of 'What is the value of research-based teacher education?'

The third paper extends the conversation by providing empirical data that explores the extent to which the enactment of practitioner research in an ITE programme prepares PSTs to understand, appreciate and experience practitioner research. This paper aligns with the deeper question of 'How can we design research and curricula that have an optimal impact on the practice of student teachers?'

The discussant will extract from the three paper various dilemmas facing teacher education research and the implications that emerge for policy and practice.

**Keywords:** initial teacher education; teachers; professional agency; professional development and learning



## Confronting the dilemmas of the role of research in teacher education; perspectives from England and Europe

Teacher education policy and practice remain contested in Europe. In England the 2021 Department for Education (DfE) Initial Teacher Training (ITT) Review resulted in prestigious universities threatening to withdraw from the sector. This is the latest iteration in the radical transformation of teacher education in England which is heavily influenced by government policy. New DfE content frameworks for ITT and continuing teacher training have raised professional dilemmas for the teacher education community. These frameworks privilege a government approved evidence base and describe expectations of prescribed knowledge acquisition as the need for teachers to 'know that' and 'know how'. We perceive this as a directive stance characteristic of a performative, neoliberal approach, and we continue to advocate for policy and practice which conceptualise the roles of knowledge, context and dilemmas in learning to teach through a more critical lens.

We address this by synthesising the relevance of three research projects of which we are contributors.

1. Variations in student teachers' conceptions of learning to teach which include 'adherence' - learning to do the right thing and 'enquiry' - learning to make sense of teaching (Lofthouse et al. 2020).
2. The BERA-RSA inquiry (2013) which framed teachers' engagement with research as: 1) a predominantly passive relationship with a body of knowledge, 2) activation of knowledge through engagement in research and enquiry as a professional learning process, 3) a transformative social practice.
3. The Erasmus+ PROMISE project (Beaton et al. 2021) which demonstrated that value of professional learning through the types of dilemmas being encountered by teachers across Europe.

We conclude that teacher education should include multitude of finely refined and individualised strategies for developing young teachers and should adopt an approach that enables teachers to enact their professional agency to make context specific decisions through critical engagement with relevant research, involvement in collaborative practice development and authentic problem-solving activity. We contrast this educative process with DfE policy which promotes a mechanistic and simplistic industrialised approach. The dilemma presented to English teacher educators is how to deliver the government expectation whilst also educating teachers who are prepared to enact their professional agency to make context-specific decisions throughout their careers.

**Keywords:** initial teacher training; continuing teacher training; teachers; professional agency; dilemma



## Embedding Research in Initial Teacher Education

The potential for transformation of practice that is afforded when teachers are discerning consumers and active producers of research is closely aligned to high-quality teacher education and teaching. Initial Teacher Education (ITE) is in a position of strategic significance to prepare teachers as researchers, given that education systems are often seen as dependent on the quality and training of its teachers. In light of this, this paper explores the discourse stemming from the research-informed/research-based debate in an effort to conceptualise the place of research in initial teacher education and the relevance of research to pre-service teachers' professional learning and development. Such discourse provides a lens to examine recent Irish teacher education policy and reform, with this paper charting the influential international understandings to current policy in Ireland. Underpinning this discussion is the Teaching Council's (2020) revised standards for ITE programmes *Céim: Standards for Initial Teacher Education*. One recurring aspect of these standards is that primary and post-primary ITE programmes in Ireland are research-informed and research-based, whereby creating possibilities for building capacity for research-rich teacher education. In order for this to be actualised, existing resources and the capacities of teacher educators to implement reconceptualised and reoriented ITE programmes requires support moving forward from all stakeholders. The paper argues for a coherent process of professional formation and development, building upon initial professional preparation and extending well beyond, to make way for a research-rich culture of teacher education, with research leading teaching.

**Keywords:** Teacher education research; Initial teacher education; Professional development and learning



## Preparing pre-service teachers as practitioner researchers

There is continual support for teacher educators to play a more significant role in equipping teachers with the skills necessary to undertake practitioner research (Ellis and Loughland 2016). However, there is noticeably less literature reporting the means through which pre-service teachers (PSTs) are introduced, and provided the opportunity, to experience practitioner research with a view to becoming practitioner researchers once they become qualified teachers. Teaching Council regulations have been a catalyst for many ITE departments in Ireland to revise programmes. Across the different reiterations of the standards for ITE published by the Teaching Council (e.g., Teaching Council 2017), there is a heightened interest in 'teachers as researchers'. Practitioner research is noted as one of six core conditions in which Irish teachers are recognised as being suitably qualified.

The purpose for this paper is on considering the extent to which a chosen enactment of practitioner research in an initial teacher education (ITE) programme prepares PSTs to understand, appreciate and experience practitioner research. The paper shares how one specific ITE practitioner-research module scaffolds learning and associated assessment tasks that align with PSTs' school placement block. It highlights one way in which PSTs can be encouraged and supported to apply research to their work as teachers and immediately in the planning priorities for school placement.

Focus groups with PSTs who undertook an ITE core module on applying research to practice were conducted to ascertain PSTs' understanding of, and experience with, (i) 'research to practice', (ii) research informing practice, (iii) research and school placement, and (iv) maintaining research activity.

The main findings are the need for supportive and encouraging pedagogical practices, the role of the practitioner researcher in informing practice, challenges of engaging with research and its application, recognition of an ongoing research process, and importance of research to interrogating teaching practice.

The findings support the call for teacher educators to play a more significant role in supporting PSTs with the skills necessary to undertake practitioner research (Ellis and Loughland 2016) by positioning themselves as a 'research broker' (Farley-Ripple et al. 2018) and, in turn, alleviating the reported challenge of reading research without knowing if it will hold relevance for the PSTs and their teaching.

**Keywords:** Pre-service teachers; practitioner research; school placement; initial teacher education

## Theme 2: The value of research on teacher education



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### A Collective Case Study of Social Support Models for Newly Qualified Teachers in Finland and Estonia

This study explores the social support models in schools in Finland and Estonia. The study sheds light on how Finnish and Estonian schools have organized social support in the frame of their professional development for newly qualified teachers in the induction period (first three years in their teacher career). In order to view the various elements in the support models in the elementary schools, a structural framework for understanding social support on different systemic levels in teacher education (Pyhältö, 2018) is adopted into the school environment (Väisänen et al., 2016). We posed the following research question: What models of social support are applied to support newly qualified teachers in Estonia and Finland and how is this support implemented in the school community? The study applies a descriptive case study methodology (Yin, 2003). Case studies provided new ways of understanding the future pedagogical leadership. 20 semi-structured interviews were made with the school leadership and teachers in the schools. We identified the organization of the support, roles and responsibilities in providing the support and forms of support. By doing this, we identified models of social support and analyzed these in relation to their national context, to commonalities and differences. There are differences in whether the social support is based on individual needs or a systemic school-based implementation involving leadership. These differences also reflect variation in the level of maturity of the social support system of newly qualified teachers. Our presentation includes good practices into support models implemented in the partnering schools for newly qualified teachers, e.g. how social support is built into daily interaction and activities. Our study offers new knowledge to various stakeholders, such as the school leadership representatives and practice supervisors both in elementary schools and in teacher education to apply.

**Keywords:** Social support models, elementary schools, induction period, case studies



## Perception, Practice and Product - A Mixed-Methods Exploration of Creativity in Pre-service Teacher Education

From an economic and societal perspective, creativity is widely accepted as a core tenet of any modern-day skillset, with potential to offer valuable contributions in professional and labor-related marketplaces, community development and personal well-being. A consensual stakeholder appreciation for the importance of creativity is also evident among educationalists and educational policymakers (Vincent-Lancrin et al., 2019). However, while stakeholder appreciation for the importance of creativity in education is clear, a shared consensus regarding creativity-related definitions, approaches, outcomes, and assessment methods appears more ambiguous (Kupers et al., 2018). Through a multi-phase mixed methods design, this research attempts to present a socio-cultural big-picture of creativity-related perceptions, practices, and products within a core tenet of education, namely pre-service teacher education. Csikszentmihalyi's Systems Model of Creativity (1999) was employed as a frame from which to interpret select elements of a "confluence" of inter-related subsystems - represented by the individual (preservice teachers, n=327), the domain (teacher education practices), and the field/gatekeepers (teacher-educators, n=6). A range of quantitative (survey, psychometric tests - Runco Ideation Behaviour Scale (RIBS), Runco et al., 2001; Creativity Fostering Teacher Behaviour Index (CFTIndex), Soh, 2000) and qualitative (reflective journal) approaches were employed across three inter-related phases. Indicative findings suggest that while preservice teachers value the role of creativity in education, there exists a potential arts-bias in both a perceived subject conduciveness to creativity and assessment of creativity. Correlations are also highlighted in areas such as creative ideation, creativity-fostering behaviours, curricular preference, and the use of constructionist technologies. Thematic analysis of qualitative data sources is used to complement the study findings, adding further insights in areas such as definitions of creativity, and the perceived role of placement experiences in the support and development of creativity fostering behaviours. These findings have important implications for the wider context of developing understandings of creativity in educational policy, research and practice within pre-service teacher education, and the inter-relationship of same.

**Keywords:** creativity, pre-service education, constructionism, assessment



### **Inquiry-based learning in history: Beliefs and practices of Kosovan teachers**

According to curriculum requirements Kosovan teachers need both subject and pedagogical knowledge to ensure their students skilled and knowledge to become responsible citizen. As in all other subjects, the selection of appropriate teaching and learning methods by teachers is also important in the subject of history. Inquiry-based learning is proposed as an integral part of the teaching strategy, as it may help students to develop, not only their knowledge of history, but also skills, abilities, critical thinking, etc. This study aims to research, analyze and present the beliefs and practices of Kosovan history teachers regarding inquiry-based learning in the subject of history. In addition, the data generated by this research will provide us with the opportunity to see the relationship between teachers' beliefs and practices in the classroom. Thus, this research is intended to be conducted in two directions. We will first explore teachers' beliefs about inquiry based learning in history, while in the second phase we will observe how this method is practiced in the classrooms where the teachers participating in the research work. Qualitative methods will be used to conduct this research. Semi-structured interviews and classroom observations will be the research instruments for field data collection. Semi-structured interviews enable teachers to express their practical knowledge and are therefore frequently used to make this knowledge explicit (Black & Halliwell, 2000). Initially, the data will be recorded, and then they will be analyzed, coded, categorized and interpreted. The results will be analyzed and interpreted based on the method of thematic analysis. The identification of key topics will be done after the analysis of detailed interviews. Participants in the research will be 7 history teachers who work in lower secondary schools. The selection of participants will be intentional. In our social context, this ongoing research is very important because it will influence the change and improvement of teaching practices in the subject of history and positively impact the community and society. More specifically, the results of the research will be discussed with the competent persons, who have to do with teaching and learning issues.



### **Teacher learning and professional development through mentoring: The case of partnership**

This study investigates teacher learning and professional development in school-university partnership in Myanmar. The aim of this study is to explore the impact of school-university partnership (SUP) on teacher learning and their professional development. Furthermore, the ease factors and obstacles to be considered in implementing successful SUP to support teacher learning and professional development were examined. A sequential explanatory mixed-methods design is utilized in this study. Participants were 220 student teachers and mentor teachers in quantitative part while 6 participants were interviewed. The research question for this study is 'How can the impact of SUP on teacher learning and professional development can be understood'. The results showed that teachers developed their professional knowledge in the areas: pedagogical knowledge and pedagogical content knowledge. Student teachers showed significant improvement in their understanding about learners' behaviors and characteristics. Ease factors for establishing SUP is 'supportive environments' while 'lack of resources and time' is the obstacles for implementing successful SUP in teacher education.

**Keywords:** teacher education, partnership, collaboration and communication



## A Qualitative Meta-Synthesis Study on EFL University Teachers' Beliefs on Emergency Remote Teaching

Many educational institutions were to switch to remote teaching with the outbreak of the COVID-19 pandemic. This has had a dramatic effect on teaching all around the world. Yet little is known about EFL university teachers' beliefs at a global scale. This meta-synthesis study aimed at synthesizing and interpreting findings from research on EFL university teachers' experiences, challenges and beliefs about the abrupt transition to remote teaching. For this purpose, a systematic review and meta-synthesis was conducted. Accordingly, twelve articles were screened and were subject to inductive qualitative data analysis. The criteria for inclusion included peer-reviewed, published, qualitative, and empirical studies on EFL teachers' experiences, challenges and beliefs on the transition to remote teaching. The selected articles were subjected to inductive qualitative data analysis and were double-coded. Four interrelated themes emerged from the analysis of research on EFL teachers' experiences, challenges and beliefs about the transition to remote teaching: having a low projection of oneself (e.g. inexperienced, digitally challenged, insecure, overloaded); feeling challenged by students (e.g. low proficiency level, lack of motivation, little digital literacy); feeling challenged by their context (e.g. internet disruptions, universities lack of LMS); the perceived need for professional development (e.g. wanting to update their technological pedagogical content knowledge). This meta-synthesis highlights EFL teachers' need for external support. They sought solidarity among all stakeholders (e.g. university administrations and IT providers). Results further indicated that they tried to build their professional identity through an ongoing exploration of how to be and act: EFL self-educated themselves into digital literacy and/or sought unconventional ways (e.g. using WhatsApp to deliver content) to reach out to their students, and further discussed these steps with their colleagues. Moreover, the experience, knowledge, and in-class feedback they gained seemed to have expanded but not necessarily changed EFL teachers' core beliefs. The findings are considered to be significant as they offer insights into similar future emergencies, suggest guidelines for effective planning and practice to ensure more sustainable education in EFL and highlight the necessity of reflective practices to better understand and respond to teachers' needs.

**Keywords:** Teachers' beliefs, emergency remote teaching, meta-synthesis, technological pedagogical content knowledge



### **Transcultural voices in student teacher education. Teaching through authentic experiences of transcultural texts**

Teaching staff within school systems has the most influence on student outcomes (EC, 2021). Focusing on teacher education will certainly lead to a greater return in terms of efficiency of educational systems: that is why we need to provide prospective teachers with competences that meet the current and future needs of society. This paper focuses on training student teachers in the face of issues of diversity, intercultural encounters and global citizenship and emphasises the importance of the quality of interdisciplinary teacher education for education improvement and for rethinking intercultural education practices (EC, 2021). Having culturally sensitive teachers is an essential prerequisite for enabling high-quality teaching for students from different backgrounds and effectively addressing the challenges of global issues. In order to develop competences dealing with diversity and prepare teachers to operate in classrooms characterised by heterogeneity and cultural plurality, we use an approach that goes beyond the promotion of tolerant attitudes, and openness and respect for differences. We put authentic voices, real stories (fiction and non fiction), transcultural texts - born in the interstices between languages and cultures - at the centre of teaching to give space to those who have experienced displacement, marginalisation, racism, Islamophobia and make them the object of reflection through multimodal texts. The coordinates of our research paradigm are in the sign of a methodological approach oriented to action and production (Abraham 2013; Hallet, 2020) that involves the active participation of the learner, in which the proposed texts become a 'field of action' to be translated into teaching practice through activities aimed at cultivating the imagination and empathy (Nussbaum, 1997). In this way, the classroom can become the third space (Kramersch, 1993, 247), the place where students recognise the Other, and confront the issues of global citizenship. Perceptions and reflections of students confronted with the proposed texts and paradigm were investigated through the use of phenomenological vignettes and linguistic and educational diaries and show interesting findings for the student teachers education and professionalisation.

**Keywords:** student teacher education, transcultural learning, intercultural education practices, phenomenological vignettes, linguistic and educational diaries



## Entrepreneurship Education in Initial Teacher Education

Entrepreneurship Education (EE) is an established research topic within economic education (Bijedić, 2019) and business education (Aff, 2008). There is also growing research literature using a broad understanding of Entrepreneurship in terms of a key competence of lifelong learning (EU, 2018) to discuss micro-didactic dimensions of teaching (Lindner, 2016) or macro-didactic strategies (BMDW, 2020). Whereas the knowledge about pupils' and students' competencies thus is enhanced, we still know rather little about their teachers, lecturers and educators (Deveci & Seikkula-Leino, 2018). What knowledge, skills and motivation do they have towards EE? What does it take to teach EE in practice-oriented ways? To what extent necessary professional, methodological and social competencies are integral part of Initial Teacher Training (ITE)? So far, there are only a few empirical studies on these questions in the realm of ITE, which refer to curricular elements (Seikkula-Leino et al., 2012), personal attitudes (Tiernan, 2016), or institutional cultures (Weber, 2002). My paper builds on these findings and examines the curricular embedding of EE in ITE referring to secondary vocational education in Austria. The theoretical framework for the analysis is the competency-based approach of the European Union, which has developed a comprehensive competency model (EntreComp) that defines Entrepreneurship Competence as a transversal key competence, which, in addition to knowledge and skills, also requires a certain attitude or mindset (Bacigalupo et al., 2016). The curricula analysis follows a qualitative content analysis that systematically explores the empirical material using EntreComp as predefined coding scheme. The curricula analysis examines the Bachelor Studies of Secondary Level Vocational Education at the University College of Teacher Education Tyrol. The study promises revealing findings about the anchoring of Entrepreneurship Competence in the curricula. The goal of the analysis is to determine in which courses (based on learning objectives) entrepreneurial content is implicit or explicit. Thus, the results give insights on a macro-didactic level into the normative settings of the teaching contents, i.e. into those dimensions of meaning and value orientation that underlie the selection, composition and orientation of the curricula elements. The results can provide a differentiated insight into the conditions and possibilities of EE in the context of ITE.

**Keywords:** Entrepreneurship Education, Curricula-Analysis, Initial Teacher Education, Vocational Education



## **Teacher Education Research Collaborate with Policy: Mentoring in the Israeli Education System.**

Teacher education research aimed to develop a knowledge base for the field and promote theoretical and practical improvements in teacher training programs (Mayer & Oancea, 2021). Nevertheless, its influence on policy steps in the education system are quite limited, and it is often being used as weapon to advance competing perspectives of macro-level policy decisions (Darling-Hammond, 2016). Collaboration between teacher education researchers and policy makers, based on trust, respect and dialog, might help the latter to consider and develop new policy moves evidence-based (Guberman et al. 2012). The current study demonstrates a collaboration between researches and policy makers aimed to develop new approaches and methods for mentors training.

Mentoring is a central component in the induction period of beginning teachers. It serves as a stepping-stone for newly qualified teachers to get a foothold in the profession (Ingersoll & Strong, 2011). The traditional form of mentoring, namely, experienced teachers were appointed to provide one-on-one dyadic assistance to beginning teachers has recently was questioned, while new approaches to mentoring based on collaborative models have been introduced (Schatz-Oppenheimer, 2021). These models challenge the basic conception of mentors as knowledge transmitters and instead, highlight collaborative knowledge construction, generating peer and group knowledge (Pennanen et al, 2015).

Aiming to develop new training programs for mentors based on collaborative models, an innovative international program was developed supported by the European Union Erasmus+ program. The project, PROMENTORS, was initiated by 10 Israeli teacher education institutions and four European universities in collaboration with relevant policy makers in the Ministry of Education.

The project was followed by evaluation research aimed to examine the mentors' perspectives regarding the role of mentoring and the training process. Data collection was conducted based on an anonymous on-line questionnaire among mentors who have participated in the project training. The presentation will discuss the study results while elaborating their implication on mentors training programs and on policy decisions regarding mentoring for beginning teachers at the Israeli education system.



## Exploring the development of research literacy amongst student teachers in Ireland

There is international recognition of the importance of student teachers developing research competence in order to raise the credibility of the profession (BERA, 2014), build collective capacity for improvement (Mincu, 2014) and ultimately, enhance the quality of teaching and learning in schools and classrooms (Cochran-Smith and Zeichner, 2006). Yet, it has been argued that there is not a full understanding amongst student teachers about how research might be applied to/in practice. In the Republic of Ireland for example, a recent review entitled *The Structure of Teacher Education in Ireland Review of Progress in Implementing Reform* (Sahlberg, 2019) highlighted the fact that some student teachers find it difficult to see the purpose of developing research skills in order to help improve their practice. In the case of Northern Ireland, the importance of research is implicit in the new strategy for Teacher Professional Learning (DENI, 2016), but that realisation is not widespread across the system.

This paper addresses the questions: What is the value of research-based teacher education, and what do we mean preparing teachers as researchers? Drawing on Gleeson et al.'s (2012) comparative study *Research capacity-building in initial teacher education (ITE)*, this paper will provide two case studies of research-based teacher education using the contexts of two colleges of teacher education in Ireland. We will review teacher education curriculum and national policy relevant to research literacy to identify, examine and share interpretations of research-based ITE. This paper is part of a larger study funded by the Standing Conference on Teacher Education, North and south (SCoTENS), of student teachers' engagement with and in research and their application of research to practice.

This paper will also present data from the first round of data collection with student teachers in two teacher education institutions. Data will explore students' understanding of the concept of a research-based profession' and considers students' subject and pedagogical knowledge, research literacy, and the extent to which they applied research to practical experience within the professional context. This paper supports the development of the discourse on teacher professional learning amongst teacher educators on the island of Ireland and in so doing promotes critical analysis of current practices.

**Keywords:** Student Teacher Research, Research Literacy, Research Capacity, ITE



## **Identity development and professional growth among mentors of second career teachers professional learning communities**

This research discusses the ways participating in a professional learning community (PLC) influences the identity and practice of mentors for second career teachers (SCT). In the past two years an initiative at the Mofet Institute in Israel, "From High-Tech to teaching" aimed at assisting former high-tech employees become STEM teachers, transformed the training process for new SCTs from a top-down traditional practicum into a communal endeavor. This research focuses on a community of mentors composed of pedagogic and disciplinary mentors, who collaborate in pairs in their own practicum communities of SCTs. Specifically, the study investigates the work model of the community of mentors and the ways participating in the mentor community influences their professional practice and identity.

Research questions: 1. How does participating in a community of mentors effect the mentors' professional practice in their own SCT practicum communities and their professional identity? 2. What are the characteristics of the community of mentors and how did these features develop over the two years since its establishment? 3. What defines the relationship between the pedagogic mentors and the disciplinary mentors?

Methodology: The research population are the different actors within the "High-Tech to teaching" program: the policy makers (5), the community of mentors' facilitators (4) and the practicum mentors (20). This qualitative study is based on semi-structured interviews and on feedback forms from PLC meetings. The data was transcribed and analyzed thematically.

Initial findings: Participants reported that taking part in the community of mentors deepened their professional identity as SCT mentors and provided new perspectives to the ways they perceive the practicum process. They reported receiving support and knowledge that enabled them to effectively facilitate their own communities for SCTs. In addition, mentors reported that the modeling and collaboration experienced in the community of mentors provided a sound basis for designing their SCT communities and helped them lead their communities and achieve their goals.

Conclusions: The structure of the High-Tech to Teaching initiative supports mentors by providing them with a communal model which they can implement in their own PLCs. The success of this model builds on strengthening the mentors' professional identity as facilitators, thus enabling the professional development of their SCT interns.

**Keywords:** Professional Learning Communities; Second Career Teachers; Collaborative learning; Mentors; STEM



### Developing research literacy in language teacher education

In recent years, a so-called practicum turn in second language teacher education (SLTE) has been observed internationally (Molway, 2022). This also applies to Austria, where a new curriculum introduced in 2013 significantly increased student teachers' practicum hours.

While this is a positive development overall, problems can arise from the disconnect between student teachers' classroom experiences and the research-based, theoretical content of their academic university classes. If an involvement with research is seen as a component of teacher professionalism (Coombe, Anderson & Stephenson, 2020), university classes need to find ways of presenting current academic research in a way that student teachers perceive as relevant to their practical experiences. Crucially, if student teachers' engagement with research is to be productive in the long term, it has to be sustainable, i.e. student teachers have to be equipped with the knowledge and skills to continue it once they leave university and join the profession.

In this talk, we will explain how we attempt to achieve this goal in a course on Written Corrective Feedback (WCF) at an Austrian university. WCF is an area of English Language Teaching (ELT) where student teachers are confronted with many, often contradictory, findings in the research on the topic (Lethaby, Mayne & Harries, 2021). By guiding the student teachers' engagement with the research, we hope to help them develop the research literacy they need to connect academic research with their own experience (Xerri & Pioquinto, 2018), which in turn will help them to develop situated methodologies which are evidence-based and appropriate to their specific teaching context (Ur, 2013).

We believe that initiatives such as the one in our WCF course can make an important contribution to effective SLTE that combines academic knowledge and practical experience. We will therefore argue for decisions at the policy level that encourage mentors to cooperate with their mentees' university instructors in projects that support student teachers in productively engaging with current language teaching research.

**Keywords:** second language teacher education (SLTE), practicum turn in teacher education, research literacy, mentorship



### What is the Importance of Research to Teachers and Future Teachers?

Research problem. Purposeful research training becomes a special task of vocational education, because the ability to successfully combine research and professional activities is the most important indicator of the quality of training a specialist of any profile. It is especially important to develop this skill in future teachers who are constantly faced with various learning problems, upbringing and development, on the solution of which the results of their work and personal professional status directly depend.

The aim of the study is to pay attention of educators of all levels to the need of improving quality of teacher training in research field.

Research methods. Based on the results of observations, interviews and surveys of teachers aged between 23 and 33 years with teaching experience of 1 to 67 years, and analysis of teacher practice, the assessment of the current state of innovation processes in public school and quality of university training of pre-service teachers in research field is given.

Conclusions and recommendations. Insufficient training of young teachers for independent research has been revealed. It was established that the research experience acquired by them while writing the final qualifying work is non-demanded in modern educational work, where innovation is pushed out due to mismatch of educational policy and the actual educational practice. The reasons of reluctance of young professionals to combine educational activities and research are the following: lack of innovation environment, academic overload, household and personal problems, and, most importantly, unwillingness and inability to carry out independent scientific and pedagogical search. Also, the problems of final qualifying works supervision and management of pedagogical practice of students have been found out.

Results. Self-assessment of young teachers, concerning their research activities, has been conducted; it included a cluster of research activities that constitute its subject matter. The point for the need to abandon the narrow, focused specialization in high school training of pre-service teachers and enhance their methodological preparation has been developed. Different ways of organizing work with in-service teachers concerning combination of subject specific and research specific aspects of their professional activities have been presented.

**Keywords:** teacher-researcher, in-service teachers, innovative processes, innovative activity, university training for research activities.



## **Habitus.Power.Education - Transformation through Reflection**

The poster presents results of the research project "Habitus.Power.Education - Transformation through Reflection", which was conducted at the Institute for Educational Research and Teacher Education, University of Graz, from 2019 to 2021. Social and participatory research methods were used to explore student teachers' experiences of social inequality in (higher) education. They were also used to analyze how social inequality is experienced, perceived, and (re)produced in educational institutions. As part of the project, open educational resources (OER) for teacher education were developed and tested. They consist of theory cards of various length, written in non-academic language in order to support the introduction to main concepts such as habitus, capital, meritocracy and habitus-structure-conflict. Exercise cards offer the possibility to a more playful approach to the topic of social inequality in education. They encompass visual, written and oral methods, some more creative than others and all with the potential to start small and big group discussions and reflection. Although the main target group are student teachers, the OER's agenda is relevant to all teachers in higher education as well as all students. It provides empirical and scientific knowledge on what there is to know about students and university structures.

A central concept in the educational material is following Pierre Bourdieu the so-called habitus reflexivity, which can be understood as part of pedagogical professionalization. What is meant by this is not so much an exploration of one's own habitus, but (related to this) an examination of the question of how one oneself as a teacher is unconsciously involved in the reproduction of power relations and how educational institutions and their logics are involved in this. Therefore, in addition to (self-)reflection, the OER also support the analysis of societal power relations and political claims such as meritocratic ideology and the idea of educational equity. A QR code on the poster leads to a video abstract about the project.

**Keywords:** inequality in (higher) education; habitus; classism; open educational resources



### **Understanding learning and teaching from a perspective beyond the reach of teaching - phenomenological vignette research**

Quality assurance has been a central challenge for educational work for decades. Whereas the focus has hitherto been on the performance of students and the associated question of how their learning can be optimised (Aithal & Suresh Kumar 2016), in recent years the attention has increasingly shifted to the professionalisation of teachers and the further development of skills and their impact on teaching practices and students' development (OECD 2019; EC 2021). The phenomenologically oriented vignette was developed as a research tool at the University of Innsbruck in 2012. With this method, learning experiences of students are described in dense scenes (Schratz et al. 2012). Our international EU-project ProLernen draws on these findings into differentiated processes of learning and makes them available for the professionalisation of (prospective) pedagogues and (future) pedagogical leaders. The research question is: How can phenomenological vignette research contribute - individually and systematically - to understand learning and teaching from a perspective beyond the reach of teaching in order to refocus pedagogical attention? Our project aims at establishing a methodology for designing and managing quality processes in different pedagogical fields by implementing the vignette to promote the professional attitude of pedagogues and pedagogical leaders. A sustainable benefit will be an enhanced quality of pedagogical institutions and the increase of lifelong willingness of pedagogues to continue professional development.

As a first result of the project, a handbook for pedagogues was compiled based on the methodology of vignette research. The different methodological and content aspects developed in the handbook served as a basis for the development of the training modules for (prospective) pedagogues. Through the training of multipliers carried out in the project, the vignette is implemented and examined as a tool for subjective reflection and systemic evaluation. Based on training modules that are held in November 2021 and March/April 2022 at three partner organisations the University of Education in Vienna, the University of Vienna and the Free University of Bolzano we will present first insights and consider research limitations on how the use of vignettes can contribute to the quality and design of pedagogical activities as well as to the pedagogical work and thus to the professionalisation of (future) pedagogues and pedagogical leaders.

**Keywords:** Professionalisation, Phenomenological Vignette Research, Training Modules for Pedagogues and Pedagogical Leaders, Higher Education;



## Blended Learning Instructional Design with eTwinning to Strengthen Intercultural, Linguistic, and Digital Competencies in Elementary School

IT and media literacy are considered pillars for learning and participation in society (Bmbwf, 2021). ELearning should be seen as an enrichment to traditional learning methods, as it can bridge distances between learners, for example (cf. Schoop et al., 2006). The pedagogical platform eTwinning enables virtual cooperation across borders. Documentation shows that digital encounters with Europe can make teaching more attractive and promote digital, intercultural and linguistic competencies among students (cf. Gilleran, 2019). Especially at elementary school, there is a lack of concepts that strengthen these competencies in an intercultural setting (cf. Akdemir, 2017). In this presentation, a lesson design will be presented, which is being tested this school year as a preliminary study at an Austrian elementary school for my dissertation and aims at the following research question: Which design elements does a blended learning instructional design need to have in order to promote digital, linguistic, and intercultural competencies in non-fiction instruction? The concept foresees that students of a 4th grade elementary school will develop both linguistic and intercultural content in a non-binding exercise, which will be documented with digital tools via eTwinning and used for a structured virtual exchange in a video conference with a French school at regular intervals. The elaborated teaching design will be tested by primary school teachers (n=10), accompanied by a teacher training, and will be qualitatively investigated in a longitudinal way by means of student questionnaires to measure motivational aspects such as digital, intercultural and linguistic competences as well as by means of iterative reflection discussions in the form of structured interviews. The results of the study will show to what extent the students become more open to other cultures and languages and how the use of digital media supports and enriches learning.

**Keywords:** eTwinning, intercultural learning, blended learning



## Teacher educators' international collaboration: impacts of a blended learning program between Europe and Asia one year on

Globalization has arisen the need for a new form of teacher and teacher-educators professionalism, mobile, dynamic, and shaped by technology (Goodwin, 2020). In a mutual enrichment, teacher educators could take advantage of one innovative, intercultural, and international collaboration (Oolbekkink-Marchand et al., 2017), triggering negotiation of processes, knowledge, resources, and new modality action (van As, 2018). A cross-cultural experienced could stimulate and support the teacher educators' professional development and expand professional practices. In the intersection of globalization and teacher educators' professionalism, we question the role of international collaboration in teacher educators' professional development and new needs in their professionalism. The contribution aims to discuss the implication of international collaboration among teacher educators. The research question is: How is the knowledge reciprocally appropriated between teacher-educators in international collaboration? How do cultural values shape this appropriation?

The specific example of teacher-educators collaboration inside a Capacity Building consortium is brought as an example as a case study. The Capacity Building project is titled Blended Learning Training for Teachers educators for more info <http://blteae.eu> involving European and Asian countries. In particular, one year after the conclusion of one international program about blended learning, we question how the teacher educators have consolidated the knowledge learned in the project during the international collaboration. The hypothesis is that the international collaboration between teacher educators have shaped knowledge, skills and practices in the local educational community to deal with teacher education in Covid time.

We will examine how the teacher educators' international collaborations have influenced their professionalism. This analysis is offered as a mirror inside the teacher-educators professionalism, across this international calling, Global and South discussion, in an open local and global tension. The analysis shows the specificity cultural dynamics of the appropriation of the knowledge in the international collaboration between teacher-educators. The appropriation of the scientific and educational concepts due to the international collaboration is retraced in institutional implications, research, teaching professional praxis, and personal sense-making.

**Keywords:** Globalization; international collaboration; knowledge; appropriation



## Quality of instruction in Science Education. On the choice and frequency of use of instructional features in inquiry-based learning opportunities and the relationship with achievement and motivation

Studies from Germany (Kleickmann et al., 2016) and Norway (Nilsen et al., 2016) are available for qualitative science teaching in primary school. Findings for Austria's educational landscape are largely lacking. The author addresses this desideratum by using in-depth secondary analyses to examine datasets from the TIMSS 2019 at the national level.

Studies on teaching quality (COACTIV; PLUS-Study; Pythagorasstudy; TIMS-Video-Studies) produced four prominent generic-subject-specific teaching quality features: cognitive activation, effective classroom management, constructive learning support, and subject-specific teaching features (Praetorius et al., 2020). In order to develop inquiry-based competencies already at the primary level, a multi-perspective science education demands the use of inquiry-based learning principles (Marquardt-Mau, 2004). This requires adaptive teaching concepts as well as quality characteristics, so that research-based learning becomes educationally effective (Pedaste et al., 2015; Reitinger, 2013). The author addresses the question of how frequently science teachers at primary school use principles of the inquiry-based learning approach at the 4th grade level and whether significant differences in frequency of use emerge when characteristics of class composition (perceived challenges, mean achievement, and motivation) are taken into account. For this purpose, data from TIMSS 2019 for Austria are used (TIMSS-questionnaire: ns=4966 and nt=337) and analyzed by using the IDB-Analyzer 4.0/IEA. Meanwhile, an exploratory factor analysis maps four scales that attempt to capture the construct instructional quality in science education with a focus on the inquiry-based learning approach. The instruments describe instructional characteristics that can be assigned to principles of specific instructional organization: (1) involving active-researching teaching (hands-on-activities); (2) activating-researching teaching; (3) initiating-moderating teaching (teacher-led); (4) material-based, life-world teaching. With a percentage of 98.4%, the principle of a material-based lifeworld-related lesson organization can be attested to be very popular among science teachers at primary school. Regression analyses also show correlations between motivation and achievement under the control of mean student performance.

**Keywords:** teacher quality, student outcomes, science education in primary school, secondary data analysis, TIMSS



## Using "The European Framework for the Digital Competence of Educators (DigCompEdu)" to Base and Implement Continuous Professional Development in ICT.

Effective teaching with digital technologies requires awareness of the general principles of the technologies and knowledge and skills to put these principles into practice. Within the scope of an EU funded in-service professional development and inspection mechanism project in Northern Cyprus, the methodology for teacher training in ICT follows common principles and established frameworks to meet international standards. Having a good understanding and practical application of these principles will enable teachers to adapt and integrate future technologies that are difficult to predict or imagine. Designing and implementing a mechanism to assure sustainability and long-term viability of continuing professional development is one of the key objectives of this project. The focus of the proposed Continuing Professional Development (CPD) for ICT mechanism for part of this project is on the needs of individual teachers within their immediate school environment, grounded in the context of day-to-day teaching practice. The emphasis is on evidence-based outcomes that have a clear impact on teaching practice which can be cascaded to peers within the school. In order for the proposed mechanism to operate effectively and have the potential to be sustainable in the long term, the capacity of the people and processes at each stage of the CPD flow process in the existing educational system will be realized as part of the general CPD mechanism.

The proposed mechanism for CPD in ICT follows three key stages:

- 1) a self-assessment based on the DIGCOMPEDU\* framework by the teacher, which leads to a personal CPD plan discussed with the school leader;
- 2) delivery of training and events, localized and in small groups either face-to-face, fully online or hybrid;
- 3) cascading of training to peers and colleagues with guidance from school leaders to exploit the full impact.

\* The European Framework for the Digital Competence of Educators (DigCompEdu) is a scientifically sound framework describing what it means for educators to be digitally competent. It provides a general reference frame to support the development of educator-specific digital competences in Europe.

**Keywords:** DigCompEdu, digital competence, in-service, CPD-in-ICT, ICT training



## Stimulated Recall as Innovative Methodological Approach in Research on Teacher Education

Traditional research on teaching and teacher education has focused on general concepts that do not take into account the specific classroom situations but these are the conditions of teaching. Situation specificity has to be addressed in research on teacher education and in teacher education. Our general theory is that the teachers' decisions in specific situations are based on subjective theories and the Cognitive-Affective Processing System (CAPS, Mischel & Shoda), and that their actualizations differ from one situation to another. To study hypotheses deduced from this theory, we used stimulated recall: Firstly, a lesson is video-recorded. Secondly, the recording is shown to the teacher, and the teacher interrupts the presentation. He or she then tells what was relevant in this situation. Then, the show of the video recording is continued until a new stop is required. This is the closest one can come to knowing the cognitions and emotions on which the teacher actually based his or her decision how to act. This method was used in several studies, among others with mentors (experienced teachers in whose classes student teachers achieve their internships) and their mentees. The results are of high relevance for teacher training. First of all, and in accordance with the above general theory, it turned out that the determining elements for the concrete action differ from situation to situation. Such differences are rarely addressed in teacher training. Further, we found that group-specific theories (e.g., theories referring only to the students of a specific class) may dominate over general theories like those conveyed in the theory-oriented teacher training. For example, an experienced teacher said that she assumes that a certain method works with one of her classes, but not with others, as will be shown in the presentation. Such small-scale practitioner research is relevant to formulate and further investigate hypotheses about the subjective theories used by teachers. If the hypothesis about group-specific subjective theories is confirmed, it would be required to address such theories in teacher education, which so far is not done. Further, one must be aware that student teachers in their internship do not know the class well enough to have been able to develop such class-specific theories. For practical teacher education, it is advisable to use stimulated recall to see and possibly influence on what base student teachers decide in concrete situations.

**Keywords:** Stimulated recall; Pedagogical tact; Situation specificity; Subjective theories;



## Teaching English and Innovations at Schools

The paper reveals a variety of innovations that help and encourage teachers to reinvent their teaching methods in the process of teaching English as a second language in primary schools. They include modern approaches to teaching English, the CLT method, interactive activities, games, as well as the use of new technologies. This study focused on ELT in primary schools. It is very significant to teach English to children at this level of education, they best adopt new information through interesting and entertaining ways (Misirova, 2018). The study shows the issue of innovations in the language teaching process, so it is necessary to start from the fact that English language teaching is developing significantly in schools under the influence of technological advances. Mobile devices (Majer, 1997), Edmodo (Kumelashvili, 2016), Piktochart (Graham, 2019), Kahoot (Martin, all, 2021), Duolingo (Magnuson, 2014) and Multimedia technology (Pun, 2013, Alemi & Daftarifard, 2010) have gained popularity as tools for teaching English and have contributed to the current changes in the teaching process. This study argues that contemporary schools need to innovate in the educational process to respond to the challenges of daily life and prepare children for the future (Green, 2019). As defined by Schultz (1989), the teacher who is perceived as a user, a creator and a transmitter of new knowledge enriches the information resources of didactic and educational practice and on these basis designs (and implements) new solutions, contributing to the development of education and upbringing, making up pedagogical progress. As a result, the teacher's role is the ultimate in the use of innovations in ELT in contemporary schools. The main purpose of the study is to highlight the importance of using various innovations in the language classroom. The presented analyses are based on a review of the literature. In this presentation, the researcher defines the term innovation and the role of the teacher, explains the scientific problem, research methods and expected results, and states the main recommendations for making better use of new technologies and various innovative pedagogies to help pupils in enhancing their learning skills and instilling in them a desire to learn a language. Innovations offer a variety of new opportunities and the latest trends for educators, novice teachers and students.

**Keywords:** innovation, modern approaches, new technologies, teachers.

## Theme 3: Teacher education research and policy



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### **A National Programme for Improving the Quality of Teacher Education: The German Qualitätsoffensive Lehrerbildung and the quest for sustainability**

In 2015 the German federal and state governments jointly launched the program Qualitätsoffensive Lehrerbildung (QLB) to stimulate qualitative improvement of teacher education in eight fields of action, among them Profiling and structure building for teaching education at universities (BMBF 2014, 2018). In a competitive procedure 91 projects at 72 universities were selected for funding. Until 2023 the program's funding amounts to €500 million. By using data of the official program evaluation, this paper discusses whether or not the program supports teacher education in finding its footing in the landscape of higher education' (Zgaga, 2013). In particular, it discusses (i) the development of institutional structures for teacher education, (ii) strategies used to achieve improvements and (iii) sustainability of these structures.

#### Methods used

Since 2016, the evaluation collects longitudinal data on the impact of the programme on the 8 fields of action and the governance of teacher education by (i) Online surveys (all projects, 4 rounds).

(ii) Qualitative interviews with all project managers and external experts (3 rounds, up to 43 at a time)

Findings, Conclusions QLB seems to have been initially successful: University top administrators increased their attention to teacher education. Existing institutional structures (e. g. schools of education) within universities and cooperation with external actors have been improved and new ones were founded (Brümmer et al., 2018; Altrichter et al., 2020). However, it is still an open question how sustainable these changes are. Teacher education at Germany (Kotthoff & Symeonidis, 2021) is both cross-disciplinary and cross-institutional. Thus, it often lacks traditional structural power bases and struggles to sustain a marked voice in the university's strategic decisions (Arnold et al., 2021). Resource allocation after the QLB funding period is insecure as it depends on the priorities of elected administrators. To demonstrate how people in charge at universities can deal with this challenge and assure sustainable change, the paper reconstructs conditions and strategies for sustainable improvement of teacher education, among them staffing, developing institutional culture, strategic lobbying, building cross-disciplinary and intermediate structures (Durdel et al., 2021). Finally, policy implications at institutional and national policy level will be discussed.

**Keywords:** policy, sustainability, evaluation, structure building



## Reflections on Caring: Between Policy and New Managerialism in the Potentiality of Caring in Initial Teacher Education in Ireland

Initial Teacher Educators bring a wealth of experience and understanding to practical experiences of students' journeys to becoming teachers, and especially must provide rich personal insight and research (Loughran 2014, hooks 2010) if Initial Teacher Education (ITE) continues to be valued by academic disciplines, policymakers and teachers themselves. One format, among many, of enabling rich research from ITE educators is to value and share vignettes of practice that are critically reflected upon (Lyons 2013 a,b,c, 2010) against popularly accepted philosophical/ethical constructs and against policy. For this paper I will explore findings from a year spent recording diaries and analysing critical incidents (Tripp 2012) in my daily work as lecturer with responsibility for school placement (i.e. practicum experience) of students on a large ITE course in Ireland. The critical frame of Noddings's Caring Ethic (2013), popularly cited globally as pivotal for advocating a philosophy of caring in education, is used to scaffold my reflections beside policy of the last decade in Irish Higher Education, and particularly ITE (TC 2011-2021, DES 2011-2021).

The paper explores the difficult tensions of working between policy advocating caring attitudes and dispositions, and frames the learner as one to be cared for, under a distinctly feminist discourse (Noddings 2013) with the ITE lecturer who has responsibility for such caring, in times of neoliberalism or new managerialism (Lynch et al 2012, Ball 2003, 2000). The pressures of the duty to care (Hoagland 1990) and the strong impulse to care (Noddings 2012) whilst traversing this in-between space, a de facto third effect space (Bergin 1999), suggests a cycle of perpetuating guilt and absence of time. The paper draws on four vignettes developed through careful analytical reflective writing and presented autobiographically (Ellis 2007). Each vignette suggests a value on caring as posited by the policy in Ireland, but displays the practicalities of working in a system hemmed by new managerial and performative agendas (Ball 2016, 2012). Recommendations stemming from this philosophical research include: (1) deeper engagement by ITE researchers to explore limiting effects of performativity, not only on ITE lecturers themselves, but more importantly on students and the wider ITE system as a whole, (2) the role of the male carer in ITE (Tronto 2017, 2010, 1994) and (3) values of liberal educational (Nussbaum 1997, Zakaria 2015).

**Keywords:** Initial Teacher Education, Caring, Reflective Inquiry, Policy



### **Using Kosovo 2018 PISA results to inform teacher education policy: An investigation of the relationship of teacher instructional practices, student motivation and achievement in science**

Teacher instructional practices are considered amongst the main determinants of student achievement (Bilican-Demir, 2018). Moreover, depending on the practices used, teachers can either weaken or promote student motivation. Since students' motivation is positively related to teacher practices, the impact of different instructional practices on student motivation and academic achievement represents a topic of great relevance for teacher education policy. The purpose of this study is to examine the relationship between teacher instructional practices and student motivation and achievement in science. In addition, gender differences in attitudes towards science exist. Boys hold generally more positive attitudes towards science than girls (Jones et al., 2000). Hence, the study examines how gender moderates the effects of teaching practices on students' motivation and the effect of students' motivation on students' achievement in science. We use the 2018 PISA student dataset which contains data from 3,906 students. Of them, 48.6% were males and 51.4% were females and most of them were in the 10th grade (70.6%). Two exploratory factor analyses with variables that represent teaching practices and students' motivation were conducted using R statistical software. Thus, 25 items were used to estimate three latent variables: (1) student-centred instructional practices (SCIP), (2) research-based instructional practices (RBIP), and (3) feedback-oriented institutional practices (FOIP). Whereas, 7 items were used to estimate students' motivation. Lastly, we calculated the mean score of all 10 plausible values (PV) in science to measure students' performance in science. To explore the effects of SCIP, RBIP and FOIP on students' performance in science through students' motivation, and to understand if the effects are moderated by gender, we conducted a Moderated Mediation Analysis. We found that SCIP and FOIP show a significant relationship with student motivation. Further, significant effects of students' motivation on students' performance in science were found. In addition, we found direct effects of SCIP and RBIP on students' performance in science. However, only the effects of SCIP and FOIP on students' motivation were significantly moderated by gender. The implications of this preliminary investigation should aim to push forward the value of utilizing large-scale assessments to promote an evidence-based approach for informing teacher education policy and practice.

**Keywords:** Large-scale assessments, teacher education policy, Kosovo 2018 PISA



## The value of a skills ecosystem approach in teacher education policy

The main aim of this paper is to analyze teacher education from the perspectives of skills ecosystems. A skills ecosystem is a self-sustaining network of workforce skills and knowledge in an industry or region (Windsor & Alcorso, 2008, p. 5.). In this regard, the skills ecosystem of teacher education is a self-sustaining network of teacher skills and knowledge in a region. The skills ecosystem concept is based on a natural ecology metaphor, coined by Finegold (1999) which consists of four elements: a catalyst, fuel or nourishment, a supportive host environment, and a high degree of interdependence. By focusing on the skills of a profession, the skills ecosystem concept shifts our approach from training to meet needs to develop better labour markets (Wise, 2016). The paper explores the possibilities provided by the skill ecosystem approach using the example of Hungarian teacher education. The choice of Hungary is not just convenient but according to the OECD's Skills for Jobs database, the skills related to education and training (knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.) are hardest to find. The OECD database is based on the O-NET-SOC 2019 taxonomy which only provides a narrow understanding of teacher competencies, but it still highlights the variety of occupations that can use this knowledge (e.g. training and development managers, human resources managers) emphasizing the role of utilizing workplace learning.

We present the various available data regarding the teaching workforce in Hungary, focusing on higher education entrance statistics, detailed graduate career tracking system data (using factual data by linking administration data systems like higher education information systems and various tax, health insurance, and other employment data), curriculum and learning outcomes of teacher education. Our research is limited to the secondary analysis of existing data but it provides the basis of further research. Finally, the paper discusses the possible uses and advantages of thinking about teacher education from a skills ecosystem perspective (e.g. fostering school-university partnerships), addressing the possibilities of developing and maintaining a high-skill equilibrium in the profession.

**Keywords:** skills ecosystem, high-skill equilibrium, teacher workforce

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### **Digital competences for teaching and learning: developing a curriculum for in-service and pre-service teachers**

At the beginning of the COVID-19 pandemic, a sudden shift from mainly face-to-face teaching and learning to exclusively online teaching and learning took place and posed challenges especially for in-service teachers at all types of schools. But also for pre-service teachers, i.e. students who are preparing themselves in order to become future teachers, are challenged by the new profile of competencies demanded. Suddenly, all teachers had to orient themselves in a completely digital world of teaching in which acquiring digital competences was no longer an option but a real necessity.

We are investigating which digital competences are necessary as a prerequisite for pre- and in-service teachers in the current COVID-19 pandemic to ensure high quality teaching and learning (Schaarschmidt et al., 2021). Based upon the European DigComp 2.1 (Carretero et al., 2017) and DigCompEdu (Redecker, 2017) frameworks and the Austrian Digi.kompP (Virtuelle PH, 2021) framework, we adopted a curriculum from most recent research, tailored to the specific needs of our European level target group. That curriculum addresses the individual digital media competence (two modules), and the media didactic competence (three modules). For each of these modules, we developed competence-based learning goals (Bloom et al., 1956; Krathwohl & Anderson, 2010; Fessler et al., 2021) that serve as a focal point of what the learner should be able to do after his/her specific learning experience. The learning content will be prepared as micro learning units to be lightweight and flexible as time constraints are known to be challenging for any professional development. In three sequentially conducted workshops (Sept. 2021, Nov. 2021, Feb. 2022), we discuss with different stakeholders (researchers, teachers, teacher-students, education administrators) the curriculum and the learning goals. Preliminary results of the first two workshops show that our developed curriculum and the digital competences specified are crucial for successful online teaching. In our presentation, we will summarize the results of all three workshops, discuss the theoretical underpinnings of our overall approach, and provide insights on how we plan to convey the digital competences developed to educators using learning strategies such as micro learning and reflective learning.

**Keywords:** Digital Competences, Curriculum Development, Learning Goals, Micro Learning



## Adult education competencies as the quintessence of professional teacher education?

Pedagogical professionalisation and associated quality demands are becoming increasingly important, especially in social transformation processes (e.g. Nittel & Tippelt 2020: 20).

The question of what constitutes professionalism in the practice of teacher educators is the focus of my research project. Specifically, the significance of adult education competencies is examined. Accordingly, this is competence and professionalisation research.

In my research, the following question will be addressed: What is the relevance of adult education competencies for the professional practice as a teacher educator in Austria?

The research project aims to learn more about the relevance of adult education competencies of teacher educators to describe quality assurance measures for this professional field.

Qualitative research methods are used to achieve the objectives. Specifically, expert interviews with teacher educators and observations of courses for teachers will be conducted. The GRETA competence model (Strauch et al. 2019: 7) serves as a framework for the empirical study. This model comprehensively maps what is important for adult-oriented teaching and brings these dimensions together holistically.

The hypothesis is that teacher educators in Austria have not comprehensively addressed their competencies, especially those in adult education. Therefore, a purposeful reflection on one's own skills can help create more clarity in this regard and strengthen professional pedagogical action.

The insights gained can be expanded in future research, for example, by asking whether adult education competencies of teacher educators are related to the sustainability of in-service professional development for teachers.

**Keywords:** Adult Learning professionals, teacher educators core competencies



### **Weaving practice, research and policymaking in STEM teachers' retraining programmes**

The severe shortage of STEM teachers' in Israel resulted in one-year accelerated retraining programmes for veteran high-tech employees (Zahner et al., 2019). This case-study (Flyvbjerg, 2011) follows evaluation studies that examined those re-training programmes, the change processes they induced and those they have thus far failed to achieve.

The study is based on four evaluation studies of the accelerated re-training programmes, policy papers and interviews with 20 stakeholders: 18 programme leaders, the Ministry of Education (MoE)'s coordinator of these programmes and a former advisor to the MoE.

Initially, the accelerated programmes aimed to prepare teachers for advanced high school students. However, the first two evaluation studies revealed that some of the students' disciplinary knowledge was inadequate. Principals were reluctant to let beginning teachers teach advanced classes, and placed programme alumni in middle school or in challenging classes. The alumni felt they were ill prepared to deal with such students. In addition, they encountered bureaucratic difficulties that affected their salaries. In view of these studies, recruiting criteria were tightened and the retraining programmes were changed to address the needs of diverse learners and age groups. The MoE formed a coordinating unit that helped alumni realize their financial rights. In addition, the unit organized a Community of Practice of programme leaders to facilitate mutual learning, as well as an alumni's network for mutual support. After these changes were introduced, two additional evaluation studies were conducted. Both studies found that the retraining programmes were still viewed as lacking in terms of teachers' preparation to deal with students' social and emotional needs and disruptive behavior. The second study noted that some of the beginning teachers' workshops have a heterogeneous composition of beginning teachers, and thus they fail to address STEM teachers' needs, and that some of the mentor teachers assigned to the programmes' alumni either lacked STEM teaching experience or were too busy to help. As a result, some of the interns' workshops were transformed into professional Learning Communities co-directed by a professional teacher educator and a veteran retrained STEM teacher. However, strengthening the connections between teacher education actual classroom teaching and enabling STEM teachers to transform schools remain a challenge (Cochran-Smith et al., 2018).

**Keywords:** Teacher Education, Retraining programs, Teacher Induction, STEM Teachers



## Supporting Teacher Professional Learning in Ireland: Policy Development to Policy Enactment

Critical policy analysis in teacher education is essential to comprehend the complexity of interactions between policy and practice and the distribution of power in policy development and enactment (Apple, 2019). Such research plays a valuable part in supporting transparent and inclusive policy development in education. In this context, we present a policy analysis of teacher professional learning policy in the Republic of Ireland (RoI). Like many of its European counterparts, the RoI developed a national framework (called *Cosán* meaning pathway in the Irish language) for developing teachers' professional learning. Initially published by the Teaching Council of Ireland in 2016, after consultation with teachers and other key stakeholders, the framework reflects and acknowledges the importance of teachers as learners (Evans, 2014) and highlights the centrality of professional learning in teacher professionalism (Kennedy, 2014). It was also linked to the idea of teacher registration with the Teaching Council as is the case with the professional update in Scotland (General Teaching Council Scotland, 2014). However, the idea of mandatory engagement with professional learning for such registration has been met with resistance. While the Teaching Council argues that teachers have a responsibility to engage in professional learning, they are questioning the value of making professional learning mandatory. There is a fine line between professional responsibility and accountability with the latter being perceived as managerialism, a point highlighted by the OECD (2009).

This paper will explore the policy context and rationale for the development of the *Cosán* framework before tracing its journey through the consultative process with teachers which was a unique approach in the context of the Irish policy landscape. Challenges to enactment (Bell & Stevenson, 2015) will also be explored which include an increase in the pace and scale of changes in education more broadly, the rights and responsibility debate, role of teacher autonomy, mandating professional learning, and developing a strategic approach to teachers' professional learning across all education stakeholders. The research findings will propose a way forward for the enactment of *Cosán*, emphasising the importance of enhancing social capital through collaborative professional learning and leadership for professional learning at the macro, meso and micro levels of the system.

**Keywords:** teacher professional learning, education policy analysis, teacher education policy



## Language teacher wellbeing across the career trajectory: Challenges and resources

Teaching is an exceptionally stressful profession with educators experiencing a complex blend of challenges and resources during the course of their careers (Gregersen et al., 2020). Language teaching is no exception to this. However, to date, research has mostly focused on language teachers' stressors (MacIntyre et al., 2019); hence, there is a commensurate need to also understand factors that support language teacher wellbeing and the resources they can draw on to thrive in their professional role. This poster presentation reports on a three-year project (2018-2021) funded by the Austrian Science Fund (FWF) which aims to gain insights into the challenges language teachers face at different points of their careers and the resources they can draw on to deal with these difficulties. The study took an ecological perspective to examine the wellbeing of 58 language teachers at different phases of their career trajectory in two different social, cultural, and linguistic contexts: English as a Foreign Language (EFL) in Austria and Modern Foreign Language (MFL) teaching in the UK. Furthermore, the analysis looked specifically at the concerns facing language educators during four specific career phases (Day & Gu, 2010): Pre-service, early-career, mid-career, and late-career. A corpus of approximately 500,000 words was generated and analysed in an integrative, multiphase approach combining an inductive and thematic analysis. The purpose of this poster presentation is to provide evidence-based strategies for personal and contextual actions to support language teachers in their professional roles throughout their careers as well as to introduce practical strategies for policy makers and leadership to enhance and protect teacher wellbeing.

**Keywords:** language teacher wellbeing, teacher education, challenges, resources



## School effectiveness and school improvement as a struggle - between educational science, policy and teacher education research

School effectiveness and school improvement (SESI) is a concept that combines educational science and educational policy. While in countries like Great Britain studies face the effects of this nexus on the school system (see e.g. Bogotch et al. 2007), there is a lack of studies on the mutual influence and the effects on topics being negotiated and researched in the German speaking countries (Gomolla 2018). At a first glance on SESI situation in Austria, two recent tendencies can be noted. Firstly, alongside the obligation for each school to work on their improvement (see BGBl. 2011) common goals were set nationwide. This situation of decreed self-management (Czejkowska et al. 2016) raises the question of who is represented as being in power to decide. Secondly: Studies show that schools compete among each other for a higher amount of socio-economic privileged pupils to increase the learning outcome, while the school's perspective on their social selection lessens (Altrichter et al. 2011). To what extent is the aim of the SESI discourse - to raise the pupils' learning outcome - linked to reducing educational inequality?

This presentation is two-fold. The first part (theme 3) is based on the results of a discourse analysis of educational policy papers and educational journals covering the time period of the last two decades. Answering the two previous stated problems the study focuses the negotiation of pupils' heterogeneity and the decision-making structures. How do researchers and politicians/officials address school principals and teachers regarding the improvement of their beliefs and practices on the mentioned topics? It will be unfolded how this addressing is especially combined with the professionalization of teachers.

The second part (theme 1) of the presentation focuses on how the teacher education and the research on teacher education can react to the current SESI discourse. Which perspectives on educational policy and reforms can we give student teachers as we will face a lack of educational theory in the SESI discourse? I will give an insight into the SESI evaluation research project of the University of Graz (2013-2018), which was carried out by student teachers and teacher educators in cooperation with different schools in Styria. Furthermore I will elaborate how this research project can be adopted focusing education inequality and decision-making structures as initial point for the professionalization of (student) teachers.

**Keywords:** School development, school improvement, educational policy, educational research, teacher education research, discourse analysis, heterogeneity, decision-making structures



## Schools, universities and teaching qualifications: reforms and perspectives from Italy

In recent years, initial secondary teacher education policies in Italy (Magni, 2019), as well as at the European (European Commission, 2017) and international level (Darling-Hammond-Lieberman, 2012; Raquel Simões et al., 2018; Tatto-Menter, 2019; Murray et al., 2019; Madalinska-Michalak et al., 2021) have been at the center of political, social and pedagogical debate.

In Italy, the latest attempt to reform the teacher education and recruitment system (law No. 107/2015) was unsuccessful. To date, except for the requirement to access the competition a Master's degree and 24 credits in psychological, pedagogical and anthropological disciplines there is no other qualification requirement to become a teacher in Italian secondary schools.

The system has proven to be ineffective, hiring unnecessary teachers and leaving several schools and teaching disciplines without teachers (especially in the STEM area). Furthermore, Italy stands out at the European level for having the oldest secondary school teachers in Europe, while the percentage of secondary teachers younger than 30 is especially low (OECD, 2021).

The Italian National Recovery and Resilience Plan (PNRR), part of the Next Generation EU (NGEU) programme, provides a comprehensive reform of initial secondary teacher education, to be implemented during 2022. This plan of reform and economic resources represents a unique opportunity, during these troubled times, to reimagine the call to teach (Hansen, 2021).

Starting from a brief historical account of the evolution of the Italian ITE system and its main pedagogical paradigms (Zeichner, 1983), based on the document analysis research method, this contribution aims to illustrate and critically analyze the proposal to establish master's degree programs for teaching qualification in secondary schools in Italy.

The main objectives of this reform proposal are: provide young university students with clear pathways to initial teacher education, that combine theory in university courses with practice in school traineeship (McNamara et al., 2013; Grima et al., 2019); allow young graduates access to the teaching profession; counteract precariousness of teachers and educational discontinuity by providing the chance to all children and adolescents to meet quality teachers, in order to finally create a clear, quality pathway to secondary education teacher training, in a strategic alliance between schools and universities (Hudson, 2017; Moon, 2016).

**Keywords:** Initial Secondary Teacher Education; Italy; PNRR; Teaching qualifications; Schools; Universities



## Using Teacher Education Research to Influence Internationalization at Home Policy: The Case of Kosovo

Internationalization of higher education is the emerging concept in the recent education policies in Kosovo and perceived as one of the tools to enhance the quality of education. However, internationalisation in developing countries is instigated mainly for supporting national reforms and institutional capacity building (Zgaga et al., 2013). In this regard, the education strategy in Kosovo misguidedly prioritizes the academic mobility of academic staff and students, and participation in international programs as the driving forces of internationalisation. Considering the economic status of Kosovan citizens and the inability of a majority of students to have a mobility experience, teachers should influence in the introduction and implementation of Internationalization at Home (IaH) in order to provide equal international opportunities to all students. The purpose of this study is to accentuate the importance of teachers' involvement both as key player consumers and producers of research to promote IaH in the policy agenda and to evaluate their recent involvement in this process, if any. Further, this study examines the level of preparedness of teacher education regarding research, in particular, the capacity to internationalise learning outcomes through designing and engaging in intercultural and international curriculum through research. Consequently, it provides recommendations for policy makers to provide the tools and means for this policy implementation.

This study uses an economic perspective as the theoretical approach to be embraced by researcher teachers aiming to involve IaH in the education policy agenda. In addition, it is based on qualitative research through document analysis and semi-structured online interviews. The level of preparedness of teacher education in research is examined through document analysis of the PhD program curriculum in the Faculty of Economics. A needs assessment was conducted with 64 professors from the University of Prishtina in order to better understand the challenges of professors in the internationalization process. The results would provide useful insights about the preparedness of teachers to perceive themselves equally as teachers and researchers and use research to support their teaching. The main findings are:

- Lack of preparation for future professors in the education research area;
- Internationalization is perceived mainly by international mobility;
- Lack of infrastructure to implement IaH.

**Keywords:** Internationalisation at Home, Research-based Teaching, Policy-Driven Research, Kosovan Professors



## **Are students' perceptions and attitudes toward science predictors of science achievement? Findings from PISA 2015 in Kosovo**

Students' perceptions and attitudes about teaching and learning practices in the classroom are critical for students' school-related outcomes as an important input into the educational system. According to research on students' academic achievement in science, these elements can predict students' science literacy and influence their perceptions and attitudes about science. In addition, implying instructional teaching techniques, collaborative and argumentative processes also fosters a sense of confidence, which improves students' academic accomplishment. Laboratories and necessary equipment and resources in the natural sciences are perceived as crucial to enhance students' learning concepts, develop practical skills, and solve real-life problems by providing an effective strategy to improve students' science performance. It is important to consider the value of physical aspects/assets and learning experiences as mediating factors that contribute to satisfaction from teaching and learning, hence indicating perceptions and attitudes toward learning process. In 2015, Kosovo participated for the first time in PISA where 4,826 students enrolled in an assessment as a representative sample for 31,546 population of students aged 15, across the country. This study aims to analyze how students' perceptions and attitudes toward science are associated to science literacy. It also investigates how much of the variation in science success may be attributed to students' views and attitudes toward science. Demographic information will also be analyzed for relevant variables. Regression analysis using IEA IDB analyzer was used to predict science literacy based on students' perceptions and attitudes toward learning science and educational resources. Results indicate that students' involvement in science topics, learning experiences in science, encouragement for scientific inquiry, occurrences in science courses, teaching strategies, and direct instructions appear to be crucial variables that influence and predict science literacy. These findings should demonstrate the links between students' views and attitudes toward science and scientific literacy as a valuable input to support the information of policymakers, researchers, and instructors for further implications in the Kosovo's educational system.

**Keywords:** PISA, students' attitudes, science literacy, students' perceptions

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### **#LobbyingTeachers. Mapping out Spanish corporations' influence on teacher professional development**

In this paper we intend to explore the emerging structures and practices of pedagogical and political influence that new private actors are developing on establishing the meaning, the scope, and the functions of teachers' professional development in Spain. And, more specifically, to describe and analyse the programs and activities through which large Spanish companies are embarking on dealing with and worrying about teachers as part of their corporate social responsibility strategies, and to what extent these are part of a broader social influence strategy. These large corporations from different productive sectors, from banks to large technology companies, are allocating part of their efforts and budgets and that of their foundations to education in general and, very particularly, to teachers. We will ask ourselves about the double condition of this social action these companies have over teachers: a new way of showing their commitment to the common good and, at the same time, another opportunity to influence its very definition. There is a lot of research on the participation of large companies and corporations in education and the effects that this is bringing. However, there is very little evidence about how this process is taking place within the specific Spanish context. In part, because some manifestations of this phenomenon are more recent in our country, and, in part, because private participation in the definition of education as a common good in Spain has been more the historical norm than the exception. We will provide an extensive map of the interaction and relations that through specific initiatives who have teachers as their main target, as the main result of our exploratory study on Spanish corporations plans and activities for teachers' professional development. We did so in a two-step process. We first undertook an extensive search on the Internet, where a total of more of forty programs were investigated. The main information resources have been websites, reports, institutional web blogs, and Youtube produced within these corporative ecosystems. Then, we explored the social and economic connections between programs and companies, so a political network of mutual influences and multidirectional interactions. With this, we would like to contribute to the study of how private actors are participating in the construction of standardized social imaginaries about what a good teacher is and is expected to be.

**Keywords:** non-state actors, corporation, philanthropy, teacher professional development.

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### **Supporting School-Based Teacher Educators: Multi-national perspectives on a survey carried out by the International Forum for Teacher Educator Development (InFo-TED).**

Though teachers in schools are increasingly being asked to take responsibility for the training of prospective teachers, little empirical research has been undertaken into the support that school-based teacher educators (SBTEs) require to perform their duties effectively. Addressing Theme Three of this conference (the potential of research to inform and evaluate the impact of policy), this specially invited session presents initial findings from the largest international survey ( $n=1661$ ) carried out to examine the professional learning needs of SBTEs. The research, undertaken by InFo-TED, provides insights into the implications for policy and practice for the development of greater support measures for this heterogeneous occupational group. The session explores the professional learning needs of SBTEs in seven of the twelve countries involved in this survey (Austria, England, Ireland, Israel, The Netherlands, Portugal and Scotland). The construction of the survey included multiple-choice questions and comment boxes. Data was imported into IBM SPSS with open-ended data imported into Excel for thematic analysis drawing on InFo-TEDs conceptual model for professional development (Conway et al., 2015). This model explains teacher educators' professional development, providing a common language to frame such discussions which otherwise would be difficult given the diversity in teacher educators' work (Kelchtermans et al., 2017). The model advocates a practice-based approach to the professional development of teacher educators, moving beyond the definition of fixed standards and competences. As such, teacher educators' practice needs to be critical and inquiry-oriented; self-regulated; caring; contextually responsive; and informed by research. This session will, over ninety minutes, start with an introduction to the InFo-TED survey instrument. The authors will then summarise their individual studies in five-minute poster presentations with the aim to provoke discussion on how best to meet the professional learning needs of SBTEs. The findings indicate how much more needs to be done, in the policy space, to recognize, address and champion SBTEs' learning needs in relation to the rapidly-changing socio-economic and technological contexts underpinning all education systems.

**Keywords:** School-based teacher educators; Professional Development; Professional Learning; Policy; Practice;

## Theme 4: Teacher education research and practice



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### "I came to prove myself and prove that I am worth it" How Israeli Teachers, of Ethiopian Origin, Perceive Their Integration Process into the Education System

Racism and racial inequality are global issues faced by countries worldwide, as people of color, immigrants and other minorities often face prejudice and discrimination. The education system serves as a socialization agent, and therefore it is important for all children to be taught by a diverse group of teachers representing the rich tapestry of society, including people of color and other minorities. This approach can promote positive models of leadership, improve classroom experiences and foster a positive school climate and high expectations for students of different ethnic origins. It may also provide students and teachers with opportunities to experience mutual respect, democratic norms and values in education. Despite these potential benefits, novice teachers, from Ethiopian origin, often face difficulties in finding employment and in trying to fully integrate into the education system in a stable manner. A useful theoretical framework for analyzing these phenomena is the Critical Race Theory, which asserts that, despite condemnations of explicit racism and declarations regarding policies that are 'equal' and 'color blind', racism is still widely spread - mostly implicit and sometimes accepted as a normative behavior.

We examined the perceptions of Israeli teachers and kindergarten teachers of Ethiopian descent, regarding the following: their job-searching experience; the high rates of their retention and turnover; and their experiences as employees of the Israeli education system.

13 teachers and kindergarten teachers, of Ethiopian descent, were interviewed, and the interviews were analyzed using a qualitative-phenomenological method.

The findings point out the difficulties they faced as well as the main factors that helped them persevere: self-efficacy, resilience, and aspirations for the future. Interviewees mentioned the importance of environmental support, from the school management and staff, as a key factor contributing to their perseverance.

The findings also raise the necessity of re-examining the needs of Israeli teacher of Ethiopian origin at both the job-searching stage and the early stages of teaching and integrating into the system.

In order to optimize their integration and stability within the system, and to encourage them over time, the training programs should be examined and adapted to fit the current teaching requirements and challenges facing Israeli-Ethiopian candidates for teaching.

**Keywords:** The Critical Theory of Race, Persistence and Dropout, Resilience and Self-Efficacy, Principals and Mentors



## **Working with students from diverse cultural backgrounds (DCB) in schools: experiences of Polish teachers**

### Research topic/purpose

The research aimed to investigate the situation of teachers working with DCB students in the Polish education system: the teachers' experiences, challenges, and expectations. We also intended to explore teachers' personal and social competences essential in working in a culturally diverse classroom.

### Theoretical framework

Despite the increasing number of children with migration backgrounds in Polish schools, there are no integration strategies and an appropriate teaching model for a multicultural classroom. Research shows the gaps in teachers' professional training and their teaching competences crucial for work in a heterogeneous classroom. It is essential to explore the factors responsible for this situation in teacher education programs and educational policies, which should include a support system for teachers working with DCB students.

The study was done in two stages. In the first step, qualitative interviews were conducted with 40 primary school teachers. The interviews focused on dealing with pupils with migrant-, refugee-, repatriate- and foreign- backgrounds. In the second step, the quantitative research focused on 55 support teachers, 51 regular school teachers, and 52 special school teachers. The data was collected using a questionnaire, the Two-dimensional Emotional Intelligence Inventory (DINEMO) and the Social Competence Questionnaire.

**Main findings and conclusions** The interviews showed the significant challenges and concerns experienced by teachers. The quantitative survey results indicated that the vast majority of teachers are not prepared to work with DCB students and face challenges in their work. Simultaneously, we attempted to look critically at curricula, organisation, and didactic related solutions applied towards teachers and students in increasingly diversified schools.

The results of both studies indicate the need to intensify support for teachers' intercultural education and the implementation of solutions based on a policy of cultural openness towards majority and minority groups. The data collected will be used to develop guidelines for a detailed policy on supporting DCB students starting school in Poland and their parents - in linguistic, didactic, and psychological terms. The research results can also be used to improve diagnosing specific learning difficulties of children with a migrant background and provide them with adequate care.

**Keywords:** students with diverse cultural backgrounds (DCB), teacher education in Poland, education policy

### Including Students into Research and Development of Curriculum in Music Education

Designing courses for teacher education students to prepare them for their own (practice-related) research project has become a common thread in the last decades. This relates to recent curricula, which put emphasis on the connection of university-based coursework to practice-based field placements in schools. The concept of *Forschendes Lernen* (e.g. Huber 2009) stresses that conducting research during their university training might develop future teachers' development of self-concepts as continuous learners for their later careers.

In order to evaluate the impact of the curricula in music teacher education, the Department of Music Education Innsbruck of the University Mozarteum Salzburg has conducted several discussions with students, teachers and stakeholders during 2021. The curriculum commission invited everyone involved in music teacher education to share their experiences with the current curriculum and to voice concerns as well as express ideas for the upcoming curriculum revision. In addition, the group asked principals and music teachers of different school types and leaders of regional music teacher groups (ARGE) to explain their points of view on necessary competences of music teachers and their tasks in schools today. Parallel to this development, master students in a music education seminar focused on research voiced their interest to be included in this inquiry process. Therefore, we jointly decided to explore the idea of conducting our own qualitative research during the winter semester. This allowed students to gain first-hand experience in developing and pre-testing an interview guideline, contacting possible interviewees and conducting their interviews with novice music teachers. The guiding questions centered on interviewees' transition from university to school, their perception of curriculum goals and their translation into practice in addition to strong and weak areas of the study program. During the seminar, we deliberated the processes of transcribing, coding and analyzing data using MAXQDA and worked collaboratively on the texts. The paper will touch on outcomes of the student research and its relevance along with its implementation into the revision process. Additionally, I will discuss the possibilities and restraints of including students into research projects in music education and debate if and how we can implement this type of research seminar in the future.

Keywords: student research, curriculum research, qualitative interviews, music education



**Emotions of students in the school internship as indications for the profession-specific accompanying process in training. Presentation and discussion of own research results.**

Affective-motivational factors, in addition to cognitive prerequisites, are crucial for the systematic acquisition of knowledge (Rheinberg, 2006; Blömeke et al., 2012) and relevant for students of teacher training. The significance and role of affective-motivational factors in connection with practice phases still represents a research desideratum (Nerowski et al., 2012), the research results presented here are intended to be a small step towards closing this gap.

This article presents and discusses the results of a survey on the feelings of student teachers (n=30) after completing their first internship as part of the bachelor's programme in secondary general education. The following questions are addressed: (1) How do students perceive their first contact with pupils and the school system in their new role as teachers? (2) How do students perceive or assess the preparation for the school internship 1 (Orientation-internship) on the part of the training institution? (3) What do the findings mean for the actors students, lecturers, practical teachers, school administrators, etc. in the training curriculum for student teachers?

The evaluation of the data according to the content structuring qualitative content analysis (Kuckartz, 2016) generates four emotion-related categories: (1) joy & relief, (2) positive surprise, (3) anger & disappointment and (4) fear (Schneider & Haas, 2019). An in-depth examination of the category (4) fear sheds light on five dimensions of this emotional state of emergency of students (Haas & Schneider, 2018), which are also discussed in detail in the presentation.

The interpretation of the data suggests that for the students surveyed in school internship 1, (1) their own person, (2) the personal pedagogical action, (3) school-related processes and (4) higher education structures are relevant to the topic. The results of the present studies (Haas & Schneider, 2018; Schneider & Haas, 2019) point to the importance of considering affective-motivational factors in the mentoring process of student teachers and highlight pedagogical-psychological challenges (Grossarth-Maticek, 2003) in the school internship. Furthermore, they form a dialogue-oriented basis in the cooperation between teacher educators, students, practical teachers and mentors at schools and training institutions. The article is divided into empirical presentation with theoretical foundation, interpretation and discussion.

**Keywords:** School internship, Emotions, Mentoring



### An analysis of the quantitative impact of a research project on ITE practicum grades

In the Irish context, as with many other contexts, each component of Initial Teacher Education programmes should be relevant to students' future work as teachers, developing their understanding and experience of the complexity of teaching' (CÉIM Standards for Initial Teacher Education, 2020, p.10). The development of pre-service teachers is assessed and evaluated through a variety of means. A holistic focus may facilitate students to develop an adaptive understanding of the connection between studied academic modules and practical classroom skills. Some suggest that the recent inclusion of a research component within ITE programmes might help address the theory-practice divide (Nolan, 2008; Giovannelli, 2003; Larrivee, 2000). However, opening up pre-service student teachers to the value of research-led teaching and meaningful engagement with research is a challenge shared by all who work in ITE (Collin et al., 2012; Beauchamp, 2006; Fendler, 2003; Richardson, 1990).

This paper reflects on the findings of a longitudinal mixed-methods study exploring the value of research projects on the practicum grades achieved by pre-service teachers on one concurrent programme of Initial Teacher Education (ITE) in the Republic of Ireland. There are eight professional practice skill set areas graded on this programme, including preparation and planning, classroom management and socio-cultural competence. This paper will present an analysis of the research theses completed by final-year (4th Year) pre-service teachers (N=398) over a five-year period. Popular topics included assessment for learning, classroom management and teacher communication. Anecdotal evidence suggested that student selection of their research topics was related to those areas that had been recommended as areas in need of improvement during their previous practicums. As a result, the current study sought to determine if engagement in the research process positively influenced students' 4th-year practicum grades in comparison with their 3rd-year grades.

A paired-samples t-test was conducted to compare students' mean scores on the skill set (grading instrument) that related to their thesis topic between Year 3 and Year 4. There was a statistically significant increase in student placement scores on these skill sets from Year 3 to Year 4. This and other results of the analysis will be presented and the implications for policy-makers and teacher-educators will be discussed.

**Keywords:** Initial Teacher Education, Research Projects, Placement Grades, Competencies

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### **IQ110 - a very unfair game about inequality of opportunity. Teacher design research as a bridge between policy and practice**

Promoting inclusive school cultures and, more specifically, addressing inequality of opportunity is high on the European education agenda. Equipping teachers to be able to identify and address inequality of opportunity requires them to develop sensitivity, multi-perspectivity and agency, and these are complex attributes that require personal experiences and deep reflection.

Following the principles of design research, five Dutch teacher-researchers developed IQ110 - a game that does just that. It helps both beginning and experienced teachers reflect on the hidden mechanisms of inequality, particularly on the effects of socio-economic status (SES), and it stimulates them to address these mechanisms. In the card game, that is played by 3-5 teachers, each teacher first draws a persona card: each player becomes a pupil with a given SES-background. Then the players, in turn, draw situation cards. These situations have three possible outcomes, each resulting in getting green (positive) or red (negative) chips. For each situation the other players discuss the most likely scenario and thus determine the pupil's score. The persona cards are based on Bourdieu's ideas on economic, cultural and social capital. The situation cards and scores are informed by SES research.

The impact of the card game, both in terms of outcomes and its driving mechanisms, is now the subject of a study, funded by the Centre of Expertise Urban Education of the Amsterdam University of Applied Sciences. To this end, the canvasses on which the individual participants record their learning outcomes are analyzed, and there is a retrospective questionnaire that is filled in after having played the game.

The preliminary results are promising: especially identifying with low SES pupils and feeling the accumulation of negative experiences raises teachers' awareness. The participants report that through the individual and collective reflections afterwards they are better equipped to address the issue.

In our presentation we would first like to briefly demonstrate the game and then discuss the results and possible implications and applications. As we are now working on an international version of the game, we would also like to discuss with you the game's potential outside of the Dutch context.

**Keywords:** Inclusive school cultures; inequality of opportunity; design research; gamification



## Teacher educators' perspectives on Global Citizenship Education (GCE) and multilingualism

Our increasingly interconnected world demands that education systems adapt in order to prepare students for the challenges of a globalised world. Global Citizenship Education (GCE) is one approach which aims to meet these challenges. GCE embraces UNESCO's Sustainable Development Goals (Chung & Park, 2016) and its core themes are already reflected in numerous curricula around the world (Goren & Yemini, 2017). A further result of globalisation is that numerous students are multilingual, and schools must cater to their needs and abilities too. However, GCE and MC are rarely ever covered in teacher development courses and course books seldom offer appropriate teaching materials (Goren & Yemini, 2017; Guo, 2014). This study aims to shed light on teacher educators' understandings of the connection between GCE and multilingual competences (MC) and their motivation to teach them to the next generation of teachers. This study was conducted as part of an Erasmus+ project entitled The Global Citizenship and Multilingual Competences Toolkit, which is a collaboration between partner universities in Austria, the United Kingdom, the Netherlands, and Italy. This presentation reports on a qualitative study of thirteen semi-structured interviews with teacher educators who are working in the partner countries and who focus either on GCE or MC in their teaching. A thematic analysis (Braun & Clarke, 2006) was conducted using MAXQDA. Our data showed that the teacher educators' understandings of GCE and MC varied greatly and that they evolved and progressed throughout their teaching and researching careers. The teacher educators' motivations to implement these topics were equally diverse and included their wish to make a difference for social equity. Despite their varying understandings and motivations, they agreed on the interconnectedness of GCE and MC and their importance in contemporary education for all subjects. The teacher educators also shared their advice on how to shift the focus of one's teaching to include more GCE and MC, including being open minded to global themes and issues and the willingness to exploit learners' and student teachers' multilingualism as a valuable resource. This study offers valuable insights into the opportunities and possibilities of engaging with and implementing GCE and MC into teacher education programmes to ensure the next generation of teachers are able and willing to integrate these life skills into their regular teaching practices.

**Keywords:** Multilingualism, Global Citizenship, teacher educators, SDGs



### **Self-reflection of Inclusive Schools' Strengths and Weaknesses Regarding Technology Use in Four European Countries**

The school closures during the Corona pandemic led to an exceptional situation. Teachers had to adapt to new pedagogical concepts and modes of delivery of teaching for which they either have not been trained or did not have sufficient guidance or resources on how to design their teaching practices in order to include all children in a digital era.

In order to address this challenge, the Erasmus+ Project - Digitalisation and Inclusive Education (DigIn) - (Bešić, 2021) was initiated with the goal to strengthen teacher profiles and their practices to teach all students and especially students with disabilities in a digital era. Following this objective, one of the project's aims is to help inclusive schools (where students with disabilities are educated in a main-stream setting) assess their digital potential with the SELFIE tool.

SELFIE is a free, online self-reflection tool for schools developed by the European Commission. SELFIE anonymously gathers the views of students, teachers, and school leaders on how technology is used at schools. This is done using short statements and questions with a five-point Likert scale. Based on this input, the tool generates a report - a snapshot (i.e., a SELFIE) of the school's strengths and weaknesses regarding technology use (European Commission, n.d.).

Within the DigIn project five compulsory schools (either at primary or secondary level) in the four project countries (Austria, Italy, North Macedonia, and Bosnia and Herzegovina) completed the SELFIE survey. In total the survey involved 20 schools. Each school in these countries completed the survey within three weeks between October 2021 and January 2022.

Since SELFIE allows adding specific questions, eight questions from the Teacher Efficacy for Inclusive Practice Scale (Sharma et al. 2012) were included in the survey, allowing the participants to evaluate existing inclusive practices at their school. The generated report then did not only show how digital technologies are being used in each school, but provides information about existing inclusive practices. The results were analyzed descriptively and show to what extent digital technologies are used for teaching and learning and what factors hinder or enhance the use of digital technologies in the inclusive schools.

**Keywords:** Inclusive education, Digital practices, SELFIE, Inclusive practices



## **Pedagogical field experiences in teacher education: What happens during Internships?**

A key element for successful learning is applying what is being learned and refining it (National Research Council, 2000). Internships are regarded as crucial elements in teacher education curricula (Hascher, 2012) and are seen as an interface to "merge multiple perspectives and knowledge resources into a sustainable professional knowledge of teachers" (Fraefel & Seel, 2017, p. 7). However, the connection between pedagogical knowledge and professional practice is a core problem of teacher education (Hedtke, 2016). Therefore, pedagogical field experiences represent an essential learning opportunity as long as it relates to the framework of university education and the underlying curriculum. In Upper-Austria a four-year Bachelor programme for secondary school teachers has existed since 2016. The study programs are jointly organised by public universities and universities of teacher education (Paedagogische Hochschulen). Students have to complete six different internships in different secondary schools. Local teachers act as mentors for the students. Although each internship is connected to a specific university course, we know little about i) the learning opportunities provided during internships, ii) the coherence of internships and university courses and iii) the influence of internships and assignments to the individual process of professionalisation. Therefore, we have conducted a survey in four waves to explore how students recognise learning opportunities during their internships and the influence of the mentoring process as well as the coherence internship university course. The latter two variables positively impact on how students recognise learning opportunities (Gamsjäger et al., 2022). In the beginning of 2022 we conduct another survey of students and in the corresponding analysis, we cluster the internships along the quality of the reported mentoring process. We conclude that in-service training for mentors has to be fostered according to our recent results. Teacher mentors should be informed in detail about the new curriculum and corresponding assignments and further pieces of training to amend mentoring processes should be offered. Furthermore, university courses as well as internships should offer more space to discuss and reflect practical field experiences as hybrid spaces allow a dialectic discussion of individual cases (Schneider & Cramer, 2020).

**Keywords:** Teacher education, internship, professionalisation



## **Approaches to professional learning and mentoring during practicum: Views of student teachers and mentors**

This paper reports on findings from a wider international project entitled The Digital Practicum ('PRAC3'), funded by the European Union (2020-1-ES01-KA226-HE- 096120). The project explores online teaching resources for the practicum context using web 3.0 resources (including innovations such as augmented reality and remote classroom learning settings). Practicum plays a key role in the professional learning of future teachers. Student teachers often describe the practicum as the most substantial part of their teacher education programme due to the opportunity to be individually supervised by mentors (McIntyre, et al., 2005). However, during the COVID-19 pandemic practicum experiences have been curtailed. Virtual mentoring and remote teaching were implemented in many contexts as is the case of the context in which the research described in this paper was carried out. Most teacher education programmes have moved to online environments (Flores & Gago, 2020) and student teachers and mentors have been asked to fully immerse in online teaching for the practicum experience even though some do not feel sufficiently prepared to do so (Hechinger & Lorin, 2020). Mentoring is dependent on the singular contexts of practice and on the framework of practicum as well as the profile of mentors. The current project draws on data collected with student teachers (n=69) and mentors (n=39) using a validated research tool entitled Mentoring Profile Inventory (Clarke & Mena, 2020). Data were collected through Google forms between December 2021 and January 2022 and were analysed using SPSS (version 26). Descriptive statistics was performed. Findings suggest that student teachers and mentors are aligned with a practical approach according to which students are the focus of the learning process and teachers should apply active methodologies. The practical approach is also identified by the mentors and the student teachers when describing their learning experiences. However, mentors tend to value more a critical approach, while student teachers claim that they benefit from a rather academic approach. Mentors usually perform a "partner" role in which they ensure that they are well prepared to contribute to the teacher candidate learning process. ICT are highly valued and used both by mentors and student teachers. These and other issues will be explored in the paper.



## **HAND: Empowering teachers through training in social-emotional competencies and diversity awareness: An international research project**

In their professional life, teachers need to respond competently to new challenges, such as the increasing diversity in the classrooms (Nishina et al., 2019). To provide support to teachers across Europe and to promote their wellbeing, trainings need to consider teaching in a changing and diverse setting, promote teachers' social and emotional competencies and their collaboration, address needs identified by the teachers by providing continuing professional development to support teachers' careers (European Commission, 2021).

Within the project "HAND IN HAND: Empowering teachers across Europe to deal with social, emotional and diversity related career challenges" (HAND:ET; 03/2021 to 02/2024) eleven partners and thirteen associated partners across seven countries work together to address these aspects. The aim of the project is to develop a training program that enhances social-emotional competences and diversity awareness (SEDA) among teachers. We assume that the development of SEDA competencies using a mindfulness-based approach will also foster teachers' self-care (Ellerbrock et al., 2016; Emerson et al., 2017; Zarate et al., 2019). The concept will be implemented as a whole-school-whole-year support system. It consists of a set of participatory activities, learning experiences focusing on mindfulness and SEDA competencies, continuous supervision, monitoring and support. Although teachers (primary and lower secondary) are the direct target group, principals and school counsellors will be also included. To prove the effects of the program, the training is implemented in a longitudinal study with intervention and comparison groups in five consortium countries (Slovenia, Croatia, Sweden, Austria, Portugal).

On the poster, we will elaborate on the program's core concepts (SEDA and mindfulness) and illustrate their importance for professional development. We will discuss existing evidence supporting the hypothesis that the promotion of these concepts supports teachers' long-term development and enhances their career (Carsley et al., 2018; Collie, 2017; Nielsen et al., 2019). Moreover, we will outline the innovative modules of the program and discuss the implementation in diverse countries within their specific context and education system.

**Keywords:** teacher training, teacher wellbeing, social-emotional competencies, diversity awareness



### **Research Relevance in Times of Corona. An empirical analysis of active and non-active teachers.**

The Corona pandemic confronts students, parents, teachers and schools with challenges. Studies reveal systematic differences in provision quality and in some contexts evidence for widening the achievement gap of learners from different socio-economic backgrounds (see Helm, 2021). However, the meta-review of recent studies (Helm, 2021) shows quite substantial differences in perceptions of challenges and issues of concerns depending on study contexts, samples and time of study. Often in study's building on convenience samples do not further differentiate between groups. This study asks about, to what extent student teachers and teachers show differences in their perceptions of challenges and raise different issues during the pandemic. Given the wide media coverage, public debate and practical phases of student teachers in schools in Austria we expected to find no systematic differences. As data for this study serve open-book examinations ( $n=307$ ) which were written by student teachers ( $n=160$ ) and teachers ( $n=61$ ) enrolled in the teacher education master's program of University of Graz. As part of the examination's attendees were asked to argue for and design a qualitative or quantitative research study in the theme "schools in times of covid-19". Therefore, a qualitative content analysis using categories in MAXQDA. Overall, we found that examinees stressed concerns with regard learning gains and motivation during the pandemic. Here it was found that especially students teachers emphasized concerns with equity and widening achievement gaps as well as challenges to online learning. In contrast active teachers tend to stress impact on physical and mental health of their students more often. The study shows for different perceptions of the challenges within the Corona pandemic between students given their practical experiences in schools: with active teachers raising concerns with regard to cognitive, physical and emotional development of their students, whereas student teachers argue more for the need of equity. Our findings correspond with literature with regards to subjective theories and theory and praxis divide (Cramer, 2014) of teacher educators. It can be also interpreted as an indicator for little exchange between different students enrolled in Master programs in online lectures. Considering the heterogeneity of different status groups among the students, it is highly recommended to develop measures to increase opportunities for structured discourse and reflection.

**Keywords:** teacher education, school and corona Pandemic, research interest, learning, educational equity, mental health,



## **Border Pedagogies in European Teacher Education and Development: Research, policies and practices for migrant and refugee minors**

The paper uses conceptualisations of border pedagogy (Giroux, 1991), border thinking (Mignolo, 2000) and third space (Bhabha, 1994) as starting points, to discuss aspects of teacher education and development which relate to the educational trajectories of migrant and refugee children and youth in European Union countries.

EU institutions have repeatedly argued for the need to increase quality, equity, inclusion and success in education and training of learners with migrant background and other vulnerable groups (European Council, 2021) and acknowledge the crucial role of teachers. On the other hand, research findings report significant challenges in the work of teachers with migrant, refugee and other vulnerable groups, and that several education systems face difficulties in finding adequately qualified and motivated teachers to work with these learners (European Commission, 2019).

The paper draws on the findings of a teacher training needs analysis and assessment research in three EU Member-States (Greece, Italy and Germany), and on the policy rhetoric about teachers in the European Commission documents, to argue that there is a pressing need to consider research-informed changes in teacher education programs and professional development policies and practices vis-a-vis refugee and migrant education.

**Keywords:** border pedagogies, teacher education, refugee and migrant education



## European Educational Initiatives to Promote Inclusive Education

This paper will provide an outline of the key outcomes from an EU funded project (STAIRS) involving 6 countries seeking to identify practices that mitigate inequality of opportunity, provision and attainment within education (primary to VET level). The project specifically targets policy makers, teacher education and education practitioners and explores the process of adapting initiatives and also the process of change management. The STAIRS (Stakeholders Together Adapting Ideas to Readjust Local Systems to Promote Inclusive Education) project aims to support national, regional and local stakeholders to work together to promote inclusive education and training through a process of learning and adapting multi-agency initiatives based in other European countries. The STAIRS project was initiated in February 2019. It is co-funded by the Erasmus+ Programme of the European Union (Social Inclusion and Common Values: the contribution in the field of education, training and youth). It is a collaborative, cross-national and cross-sectoral project, which aims to support national, regional and local stakeholders in Hungary, Slovenia, Croatia and Czechia dealing with diversity and inclusion in education and training through a process of learning and adapting good practices shared by Irish and Portuguese partners. The main purpose of STAIRS is to promote social inclusion through educational good practices which are particularly based upon multi-agency collaboration. It is widely accepted that education policies alone cannot break inter-generational cycles of deprivation and tackle educational disadvantage. The task of the partners in Croatia, Hungary, Czechia and Slovenia were to ascertain ways in which the selected initiatives could be adapted for their own region or national system. These partners worked with policy makers, educational practitioners, schools and teacher educators to explore potential adaptation. The National Adaptation Plans identified conditions needed for collaborative approaches among stakeholders that help reduce social exclusion, mainly at local and school levels.

**Keywords:** educational inequality, multiagency partnership, social inclusion



## The development and application of teachers' expertise during their career – Exploring a book proposal

The teacher profession needs to be understood as a continuum spanning different stages in the career cycle of teachers: the stage of initial teachers education (often 1 to 4 years), the induction stage (1-3 years), and the stage of continuous professional development (the remaining years in the profession) (see e.g. European Commission, 2015). By emphasizing this continuum, the profession is understood as a profession of growth (Berliner, 2001). At the same time, there seems to be a lack of explicit ideas and system approaches that do justice to this idea of a continuum (Snoek, Dengerink & de Wit, 2019). The dominant mental model regarding the teaching profession is a static one where an initial qualification as a teacher suffices in most countries for staying in the profession until retirement. System arrangements and efforts of teacher education institutes focus mainly on the stages of initial teacher education and induction. In some countries there are explicit ideas on professional growth in terms of different levels of teachers' competence and expertise but these need to be connected to a growth in responsibilities and roles within schools (European Commission, 2020).

This raises questions on how the development of teachers' expertise during their career is supported and how this relates to opportunities to use this growth of expertise within schools.

As follow-up on the recent webinar on teacher career pathways, organized by TEPE (Snoek & Åstrand, 2021), our ambition is to explore this theme by bringing together experts in the field of teachers' expertise development, career structures and organizational models for schools and school systems. The main aim is to publish their input on this topic in a book within the TEPE Book Series 'Key Issues in Teacher Education: Policy, Research and Practice', published by Brill Publishers (<https://brill.com/view/serial/TEPE?rskey=SKAqA2&result=1>). Such a book aims to create bridges between outcomes from research and implications for school practice, teacher education practice and teacher and school policy.

During this session the TEPE board invites you to explore this idea through a collaborative discussion on the structure and outline of such a book by exploring the aims, perspective and conceptual framework of such a book, thus preparing the call for contributions. Participants are invited to join in the discussion on the structure and possible outline of the book and to participate in further steps.

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### **Learning opportunities in practical phases in pre-service teacher education – first results of a survey at five European universities**

Practical phases are seen as an important part of teacher education in different European countries (Kyndt, Donche, Gijbels, & van Petegem, 2014) to develop professional competencies (Baumert & Kunter, 2013). To describe and analyze different individual learning opportunities in internship that are discussed to be relevant for student teachers' learning outcomes (competencies in teaching, diagnostics and classroom management), the offer-and-use model of teaching practice (Hascher & Kittinger, 2014) offers a suitable framework.

The aim of the study presented in this paper is (1) to describe how pre-service students perceive practical phases (in more detail at five European universities), and (2) to test individual, internship and mentoring-related predictors of pre-service students' professional competencies. In the context of an European project we carried out an online-survey including standardized scales. Analyzes of the survey data of N = 227 student teachers revealed that overall the competencies of the mentor teachers and the internship offer were rated on a medium to high level; same was observed for their self-assessed professional competencies aquired due to the internship. But differences between the sub-samples of European universities mainly with respect to organization and support in internship were observed. Results of linear regression analysis showed that student teachers' perceived organization and support in internship was confirmed as the strongest predictor of the self-assessed internship success (competencies in teaching, diagnostics and classroom management). Futhermore, feedback from the mentor teacher was a strong predictor, as well. Overall, the study gives an insight in the relevance of the perceived offer of internship and mentoring for student teachers' learning outcomes in practical phases. Limitations and implications for teacher education are discussed.

**Key words:** Teacher education; internship; mentor teachers,



## Inclusive Education in a Digital Age: Enabling Teachers to Teach Diverse Students

Over the past decade, and specifically since the worldwide lockdowns due to the COVID-19 pandemic, digitalization shapes education systems worldwide. Within inclusive education, digitalization is mainly perceived as an opportunity to provide differentiated and individualized teaching instructions, leading to the enhancement of students' participation (Thiele & Bosse, 2019; Schulz, 2021).

Through digital technologies students can receive tailored support, instruction and materials can be adapted to specific needs, such as visual, auditory, cognitive or language needs. The learning process can furthermore be organized more flexible in terms of space and time, individual learning paths and learning speed can be considered as well (van Ackeren et al., 2019). For these opportunities to emerge, however, inclusive learning opportunities within digital education are needed. It is important to ensure that the needs of students with different dimensions of heterogeneity are considered in all school programs, processes, and in the design of educational media/materials (Bešić & Holzinger, 2020).

The focus of the three papers within this symposium lies therefore on teacher education and practice in the light of digitalization. The first paper introduces a free online teacher training (MOOC), with a specific focus on its' theoretical framework, content, style, and its' development process.

The second paper builds on that and presents (a) digital differentiated materials for inclusive lessons, (b) two usability studies on this material and (c) a teacher training that aims at enabling teachers to digitalize materials for their inclusive lessons by calling upon the results of the usability studies.

The third paper focuses on a specific web-based platform, which not only enables teachers to quickly find out their students' competencies in German orthography but also enables the students' themselves. This is achieved through applying Learning-Analytics-Methods.

**Keywords:** Digital education, inclusive education, teacher training



## DigIn MOOC: Developing Teacher's Digital and Inclusive Competences

The COVID-19 pandemic exacerbated the exclusion of students with disabilities from education, showing that they are least likely to benefit from distance learning (UN, 2020). Although teachers have a tremendous impact on the accessibility of their teaching, they often do not know how to make it accessible for students with disabilities in a regular situation (Kent, 2015), let alone during a crisis situation. Teachers had to adapt quickly to new pedagogical concepts and modes of instruction for which they either had not been trained or did not have sufficient guidance or resources on how to include students with disabilities in distance learning. This has led to the decrease of students with disabilities' participation in digital education, exclusion from learning, and increased risks of dropping out of school (OECD 2020; UN, 2020). With these challenges in mind, the central purpose of an Erasmus+ project is to increase the participation of students with disabilities in digital education. A way to achieve this is by "providing support to education systems to ensure that distance learning is accessible, teachers are trained and supported to remotely teach children with disabilities..." (Global Partnership for Education, 2020). Recognizing this, the project aims to empower and professionalize teachers from mainstream schools (grades 1-9) who teach students with disabilities in their classes in the fields of digital education and inclusive education. This will be done through a massive open online course (MOOC). The MOOC is currently under development. A multi-disciplinary team from four European countries (Austria, Bosnia and Herzegovina, North Macedonia, and Italy) representing different stakeholders— three higher educational institutions, a comprehensive school, and two non-governmental organizations (NGOs)—with expertise in either inclusive education or digital education are responsible for the MOOCs' content. The pilot version of the MOOC will be ready in February 2022, and it will be consensually validated between project partners. This paper will introduce the theoretical framework of the MOOC, namely the European Commission's Digital Competence Framework for Educators (DigCompEdu) and the MOOC itself, in terms of content and style, and its' development process.

**Keywords:** Digital education, inclusive education, MOOC, teachers' skills, students with disabilities

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### **Research for practice: analyzing digital content material usability to train teachers in producing digital texts and tasks**

This paper introduces two projects focusing on inclusive lessons by using and creating differentiated digital materials. The project “RegioDiff” (Paleczek, 2020) fosters 4th graders’ reading and regional competencies by working with texts about regional particularities in a browser-based learning management system (LMS). Each topic offers texts and tasks on four reading levels, enabling teachers to foster their students’ individual reading competencies and content knowledge in a whole-class approach. The texts contain glossary words, cooperative learning elements, reading strategy and comprehension exercises (Hattie, 2008; Spörer et al., 2009). By clicking on glossary words, students launch a pop-up with textual, visual and audio description. In the reading comprehension tasks, students solve various content-related questions. Reading strategy tasks, combined with cooperative learning elements, motivate students to implement pre-, through- and post-reading strategies. The materials were piloted for usability, practicality and feasibility in classroom use (Study 1: 14 individual students; Study 2: three inclusive classrooms) via interviews (students and teachers), individual and classroom observation, think-alouds and screencasts. Students and teachers enjoyed working in the LMS, which proved to be user-friendly and intuitive, offering the teachers feedback on student achievement in the exercises. The follow-up project “RegiNaDiff” used these research results to develop (a) an editor for teachers to create their own differentiated texts, enriched with tasks (vocabulary work, reading strategies, cooperative learning) in the LMS and (b) a teacher training that introduces the editor. In teacher trainings, teachers will learn how to produce materials by using this editor on the topic of climate change and sustainability for Grade 4 and 5 students. Beforehand, the editor’s usability and userfriendliness will be tested.

**Keywords:** usability, producing digital content material, teacher training, inclusive lessons, differentiation

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**Linking research and practice to improve spelling and its didactics: The web-based platform [www.iderblog.eu](http://www.iderblog.eu)**

This paper introduces a web-based platform offering support to pupils and teachers by applying Learning-Analytics-Methods; it also enables researchers in teacher education to build evidence-based courses. In the German speaking world the mastery of orthography is an essential educational objective. Given this importance educationally and for social status, researchers are interested in the teachers' professional competences in German orthography theory and didactics (e.g., Riegler & Weinhold, 2018); furthermore, they develop sophisticated didactic approaches. The existing research shows that the teachers' professional competences are quite limited (e.g., Wiprächtiger-Geppert & Riegler, 2018). Consequently, this can negatively affect pupils' spelling acquisition, especially in the case of struggling learners. From a practical point of view, modern approaches of teaching and learning the – quite difficult - German orthography need to be implemented in practice. In an Erasmus+ Project the iderblogplatform has been developed to reduce the gap between academically recognized aims (e.g., strategybased and systematic teaching of German orthography, individualization, considering theoretical and linguistic aspects) and practice in a digital learning environment. It is free of charge and provides pupils with individualized feedback, derived from modern didactic approaches for correcting mistakes - while composing texts. The tool then further builds on this data pool to offer each pupil explanations and various exercises automatically, available in different difficulty levels; they have been developed based on the results of a usability test (21 3rd graders) and an online survey (52 teachers and future teachers). Additionally, teachers are provided with ready-to-use lessons including theoretical background and adequate word collection. This ensures that professional competences can easily find their way into the classroom. From a theoretical point of view the learning-analytics approach of our platform provides a basis for a novel examination of the difficulty level of orthographic categories. Not only does it count the number of mistakes per category, but it also considers the ratio of correct to incorrectly spelled words. This ensures that particularly problematic orthographic categories can be identified and subsequently highlighted in teacher education. Thus, the teachers should be prepared to deal with them professionally.

**Keywords:** German Orthography, spelling acquisition, Learning-Analytics-Methods, digital tools, support for teachers and pupils



**Decolonising curriculum knowledge in Europe: What's been happening in teacher education? What's next for informing policy and practice?**

Decolonising the curriculum has been trending as a term in education. This has been given greater attention in academia following the huge waves of Black Lives Matter protests across the world during the summer of 2020. Where has the term come from? How is it being interpreted today in education? What is next for this concept in teacher education policy and practice? This symposium explores all of these questions, through three papers that share evidence-based research for decolonising curriculum knowledge in Poland, Norway, and the UK. The introduction to this symposium will provide insight to broader international collaborations from which these papers are drawn, including the theoretical and evidenced based foundations that frame the criticality in our thinking and arguments (Mignolo, 2013; Ndlovu-Gatsheni, 2013; Moncrieffe, 2020, 2022). Each of the papers in this symposium will argue for the reconceptualization of teacher education policy and the decolonising of curriculum knowledge. The plenary will give discussion to consider how the reconceptualising of national curricula from narrow ethnic exclusivity to broader ethnic inclusivity can provide sense and meaning for teachers with enacting equitable classroom teaching and learning practices, thus serving to challenge racial inequalities in the systems and structures of European societies.

**Key words:** Decolonising; Curriculum; Evidenced-Based Research; Teacher Education; Interdisciplinarity



## Decolonising education via participatory research and bottom-up participatory activities in Poland

The aim of the presentation is to provide an overview of the changes initiated in the university MA teacher education programme directed at decolonising traditional approaches to research 'about' children and activities with children in pre-school and early childhood education. The results of two years (2020/21, 2021/2022) of participatory research projects with children conducted within the early childhood education studies will be presented. We base this research on L. Lundy's model of participation which is still little known in Poland. This model was developed in Western European countries with the aim of drawing policy makers' attention to the 4 steps of children's rights to participation - elements of space, voice, audience, and influence (Lundy, 2007). This model has been extensively applied in many societies to policy and practice, in the fields of children's services (Moore, 2019), child protection, child welfare (Kennan et al., 2018), primary education (Harmon, 2020) and professional development initiatives for teachers and educators. Prior to carrying out participatory research projects, the students were prepared and trained to work based on the Lundy model, introduced to R.Hart's ladder model, P. Trese-der's 'degrees of engagement' model, H.Shier 'pathways to participation'. Before and after the activities, the students individually diagnosed their participatory approaches with the *PARTICIPA* Consortium self-assessment tool, which was designed to support teachers working with children to improve their participatory practices in the framework of the international project *PARTICIPA EU*. The participatory research initiated by students (prospective teachers) with children as bottom-up projects initiated by children and in cooperation with children in preschools and primary schools showed a change in the students' perspective on working with children and pupils from a directive approach, replacing children's agency to one that is participatory and includes children's voices. The evaluation of the research projects indicated that there is no child participation without a paradigm shift in adult functioning. Therefore, it seems important to decolonise the thinking about the role of children in research in the education of future teachers from passive recipients of top-down designed activities to co-creators of these activities. Such a deconstruction will help to avoid marginalisation and underrepresentation of key participants of the educational process - children in activities that concern them. Children's voices only translate into wider impact when they are heard and lead to action (Johnson, 2017).

**Keywords:** Participatory research for early childhood education teachers; L. Lundy model; Decolonising Education; Bottom-up participatory activities with children.



## Coloniality and National exceptionalism in Norwegian citizenship education: Engaging the ontological baseline

This presentation is based on analyses from a study aimed at interrupting coloniality in Norwegian citizenship education (Eriksen, 2021). Coloniality is here understood as the ontogenesis of modernity, installing enduring structures of power and knowledge that survives historical colonialism (Quijano, 2000). Although a variety of scholarship sheds light on colonial legacy in the Nordics (Keskinen et al., 2019; Loftsdóttir & Jensen, 2012), implications for education are little explored. The study is based on colonial discourse analysis (Andreotti, 2011) of classroom conversations and textbooks at primary school level. The study was methodologically guided by Boaventura de Sousa Santos' *Sociology of absences* (2018). As Santos argues, decolonization of knowledge demands inquiry into how ongoing colonialism produces abyssal exclusions, positioning certain groups of people and forms of social life as nonexistent, radically inferior, or dangerous. Production of absences through erasure of these dark sides of European history must be understood not simply as rooted in epistemological domination, but also ontological deprivation – the impossibility of acknowledging the full humanity of non-whites within the colonial logic. Through the study, coloniality was empirically detected through reproduction of a dominant national self-image embedded in *National exceptionalism* (Loftsdóttir & Jensen, 2012). The discursive structures of National exceptionalism uphold coloniality through a particular way of imagining the nation-state, purposefully dismissing certain events, or even reframing them within the imaginary of the nation-state as inherently good. Of the promises described in this study as upheld by imaginaries of exceptionalism, are immunity offered by the construction of the exalted white national subject and the benevolent state, and the fiction of universal knowledge. The findings illustrate how National exceptionalism works to obstruct critical conversations about processes that systematically reproduce violence and injustice. This may paradoxically lead citizenship education to absolve educational institutions of their ethical and pedagogical responsibilities to disrupt unjust and unsustainable social relations. A major implication from this, is that to unsettle the coloniality of education, we will need to go beyond addressing colonial patterns at the level of knowing, and engage with the level of being, i.e., the ontological level.

**Keywords:** Coloniality; National exceptionalism; Citizenship education; Norway.



### Developing a Reframed Curriculum for the UK: Who were the Ancient Britons?

The primary conceptual and theoretical framework for this chapter is Afrocentricity, and Africana phenomenology situated within a critical pedagogical lens. These integrated and interwoven lenses facilitate an understanding of how change in social and learning behaviour can occur as a result of increased understanding of learners' affective, conative, and cognitive domains. Framed within a pathway to praxis, my reconceptualised teaching programme of Reframed Units of Change [RUoCs] addresses the issue of decolonising the curriculum for both learner and teacher to access and engage. This evidenced gateway to <sup>1</sup>Black identity is rooted in cultural and historical achievements. The goal of the research which is presented in through intent and content is to alter the diminution of Black learner voice and learner behaviours to raise their status as subjects with agency and power. The specific theme from the RUoCs that I taught to reinforce Black identity was the Unit on Genesis of Geometry. The genesis of geometry culture enables the reader/student to understand/innerstand and overstand that the original Britons were Black. For example, the Silures of South Wales, the Picts of ancient Scotland and the Tuatha de Danann throughout ancient Briton were all Black (Rogers, 1952/1980).

**Keywords:** Afrocentricity; Corrective history; Learner-centredness.



## Teacher education curricula for a society of migration

European societies are facing increasing diversity due to globalisation and the freedom of movement across the European Union member-states. Research from different disciplines such as sociology, political science, psychology and anthropology has highlighted the urgency to deal with the changing composition of societies on structural and content levels. This is especially true with increasing demands of participation and rising expectations of what democracy really means. At the same time the topic of migration is used as a particularly powerful demon in narrations of so called “replacement” and dynamics of social disruption in the context of conspiracy theories.

In this symposium we want to explore how teacher education has been responding to those changes in society and the classrooms in different countries. The TALIS 2018 study showed that many teachers report not being prepared for the linguistic, socio-cultural and religious diversity in their classrooms (OECD 2019). On top of that, especially pupils and teachers in classrooms without migration-related diversity can be expected to increase societal problems in the long run when they are not competent for a diverse society in the future. Therefore, competences for a multilingual, multireligious and multicultural society and professional environment are a question of survival and social cohesion for the EU countries as is the case for those outside the European Union. This is nothing new and international organizations such as the Council of Europe and the European Commission, the UNESCO and the OECD have been publishing reports on that issue for some time.

In the European Commission’s report “Preparing Teachers for Diversity: The Role of Initial Teacher Education” (Dumcius et al 2017), which covers 37 countries/jurisdictions, it became clear that migration-related diversity in ITE-institutions was treated mostly as add-on and in optional courses. Mandatory courses were still rare, as was the integration of diversity content in a cross-sectional way throughout the curriculum. The three contributions in the symposium will present more in-depth analyses of the specific competences relevant for migration-related diversity in teacher education in a country comparative view, with Schroedler et al focusing on multilingualism in several countries, Herzog-Punzenberger et al comparing Austria and Ireland concerning cultural diversity, while Petersen will report on changes having taken place in Denmark’s teacher education curriculum across the array of linguistic, cultural and religious diversity. Finally, the question which factors help to explain parallels and differences in the educational governance of migration related content in teacher education highly relevant for the practice will be discussed.

**Keywords:** teacher education curricula, migration, diversity, country comparison



## **Challenges and Opportunities in International Comparisons of Teacher Preparation for Multilingual Learners: Results and Reflections from the MultiTEd Project**

### **Topic/Background**

The project Multilingualism in Teacher Education (MultiTEd) was launched in 2018 to bring together academics from different national backgrounds interested in how teacher education programmes prepare pre-service teachers for multilingual classroom realities (Wernicke et al. 2021). Overall, eight different national contexts were examined to describe and discuss how ITE addresses linguistic diversity and multilingualism as part of teacher education curricula.

### **Methods**

Through various workshops, meetings and knowledge exchanges, a wide range of challenges emerged. In an attempt to compare the participants' programmes within their different multilingual realities, it became evident that a number of categories and patterns cannot easily be adopted for different national contexts. In this presentation, two examples of such variables are presented and discussed: 1) understanding multilingualism, and 2) assessing formality.

### **Findings**

First, it is somewhat self-evident that multilingual realities and multilingual environments differ across the world. Mirroring Coulmas (2018) claim that "one multilingualism is not like all others", the project quickly exposed that conceptualisations of multilingualism and multilingual learners differ immensely between national contexts and that conceptual groundwork is needed to commensurate these different orientations. A framework that demystifies terminology and brings clarity of different types of societal multilingualism was hence developed (Schroedler 2021). In this paper, the inclusive perspective of this model will be critically discussed in relation to the ways in which multilingualism is an important topic for ITE. A second major challenge in comparing pre-service teacher education approaches for multilingual learners concerns how to assess teacher education curricula on a formal level. Comparisons between different national and local ITE programmes with regard to multilingualism demonstrated that an enormous degree of micro-differentiation is in order when capturing the size (measured in CP/ECTS) and the formality (level of obligation) of relevant curricular components (Hammer et al. 2021). In summary, project results show that when comparing and critically discussing differences between ITE programmes, typological advancement and terminological precision are indispensable, and that only through profound international collaboration research into the advancement of approaches to prepare teachers for multilingual learners can succeed.



## **Preparing Teachers for Diversity: How are Teacher Education Systems Responding to Cultural Diversity – The Case of Austria and Ireland**

### **Topic, Purpose**

Research indicates that migration produces a new context for teaching, for which many teachers do not feel sufficiently prepared (Herzog-Punzenberger et al., 2020). In this presentation secondary teacher education curricula are analysed in two countries to ascertain how higher education institutions are preparing secondary teachers for culturally responsive teaching. Austria and Ireland are taken as examples for this analysis, both of which are countries with high levels of cultural, linguistic, and religious diversity in schools (Herzog-Punzenberger et al, forthcoming).

### **Methods**

The argument builds on a qualitative document analysis of secondary teacher education curricula in both countries which were collected from the respective websites of all Austrian and Irish Higher Education Institutions offering secondary teacher education courses. In total, the database included 39 secondary teacher education curricula from 12 Higher Education Institutions in Ireland and 4 such curricula from four teacher education clusters (including 12 universities and 14 universities of teacher education) from Austria. The categories used for analysis were taken from a study on diversity in Austrian primary teacher education curricula (Schrammel-Leber et al., 2019): the structure of the programme; the title of the course or module; the manner of teaching and assessment (e.g. seminar, lecture, independent study); whether the module is compulsory or optional; the number of ECTS for the module; the level of embedment; requirements for participation; and the description of the course content.

### **Main findings, Conclusions**

The analysis reveals that the curricula of almost all initial teacher education (ITE) programmes in both countries have embraced the concept of diversity. However, “diversity” is a broad concept including a range of different aspects, such as gender, sexual orientation, social milieus, culture, religion etc. as well as differences in school performance. Since most curricula assign only a small amount of ECTS to ‘diversity’ and leave it open what aspects of diversity to focus on, HEI teachers can potentially oscillate between treating many or all aspects of diversity superficially or focussing on specific aspects of diversity. As a consequence, teacher education curricula in both countries appear to reflect migration-related diversity in a marginal way and are far off sequentially building up knowledge and competences of productively responding to the challenges of culturally diverse classrooms. Special efforts for attracting and training teacher students from minority backgrounds, for professional development of the present teaching force, and for developing transnational ITE modules that cover both the theoretical and practical aspects of multicultural teaching and learning in a multilingual environment are discussed as potential ways forward.



## How has teacher education in Denmark reacted to the increase of migration-related diversity in schools?

### Topic and Purpose

In 2021, migrants made up approximately 14 percent of the population in Denmark, while some urban areas had much higher percentages. Over the past 30 years, the number of migrants from non-Western countries has quadrupled, while it has tripled for migrants from Western countries (Danmarks Statistik, 2021). While the percentage of students with another first language than the language of instruction is not particularly high in Denmark compared to other EU-countries such as Austria or Germany the results in the PISA-study continuously showed an exceptionally worrying gap between students with and without migration background (Borgonovi 2018). The purpose of this presentation is to describe and analyse, how and in which ways teacher education in Denmark has reacted to these results.

### Method

The presentation is based on document analyses of various documents. The documents are 1) legal documents on teacher education in Denmark 2) curriculum descriptions of specific modules in TE, and 3) official documents on migration and migrant language education.

### Findings

Since the movement of migrant workers to Denmark in the 1970s, there has been a strong political, ministerial and educational focus on preparing adult migrants and their children for Danish society. The acquisition of the Danish language (from the late 1990s defined as Danish as a second language) has been consistently highlighted in legal documents and political discourse as a decisive factor for the integration of adult migrants and their children.

As an implication of the efforts to teach Danish as a second language in school and adult education, comprehensive continuing education courses and in-service training systems for primary and lower secondary school teachers working with migrant children were introduced in the 1990s. In adult education teachers have to pass a 60 ects credit point education in second language pedagogy and intercultural knowledge in order to teach adult migrants since 1999. Concerning the teacher education curriculum, in 2006, an optional subject "Danish as a second language" was introduced covering 30 ects credit points. Soon afterwards in 2013, the subject Danish as a second language was made compulsory for all teacher education students, however now as a compulsory 10 ECTS module (Petersen 2017). While it can be seen as a success story that all teacher students are required to build up competences in this field with a considerable number of hours devoted to that the most recent developments are less promising. Recently a committee overlooking the teacher education order from 2013 was suggesting to reduce the compulsory Danish as a second language module to a module that will only comprise 5 Ects credit points (Wulf, 2021).



**Teacher education programs: Using data from PISA and TIMSS assessments to guide practice and teaching in Higher Education in Kosovo**

The symposium addresses the need of education institutions to utilize data from large scale assessments to guide teaching in practice. More specifically, what research data to use and how to translate that to meaningful curricula updates. This becomes even more crucial since often across education institutions in the country, teaching and research are considered rather separate topics. The urging issue of allowing research and data to guide policy building and practice is one that is still largely neglected but it has contributed to a low quality and largely exclusive education system. Kosovo is one of the countries that has undergone major reforms in education over the past 20 years however until the PISA assessment of 2015 information on the quality of education system as well as how this education system compared to other systems was simply lacking. Research on analyzing data from large scale assessments such as PISA (2015, 2018) and TIMSS (2019) is simply lacking. To elaborate, while there are a few publications on the PISA assessments there are no studies that analyze the performance of Kosovar students in TIMSS. PISA data reveal that Kosovar students are among the lowest performing students among all participating countries. What was considered as an improvement from the 2015 to the 2018 PISA assessment, as presented by the Ministry of Education in Kosovo, is in fact a sharp decline in student achievement in science. The drop was the largest one among all participating countries, a fact that has still not found its way in the academic discourse. In addition, the Kosovar education system is rapidly becoming less cohesive and equitable as the achievement gap between groups of students has only expanded between assessments. TIMSS data on the other hand reveal that student achievement is largely impacted by teacher characteristics, and by parents as well, both of which have never been addressed either in the university preparation programs or in teacher professional development programs.

Developing meaningful interventions in the education system and improving curricula in higher education institutions requires an analysis of available data. The presentations within this symposium will address this immediate need by first revealing what drives and influences student achievement, followed by revealing how and to what degree higher education institutions are using available data to prepare future teachers. In conclusion this symposium tries to answer the question of how we can use large scale assessments to improve teaching in higher education institutions as well as how we can let data lead to meaningful practices and approaches. We present data from PISA and TIMSS and consider a variety of factors influencing student achievement in an attempt to improve the quality of the Kosovar education systems.

**Keywords:** Teacher practice, large scale assessments, Kosovo



## Implications for practice and policy: What large scale assessments reveal about the Kosovar Education System

The Kosovar education systems has undergone large reforms during the past 20 years. Investments in education have been large mainly due to foreign investments and financial assistance. While many developments took place, it was not until the first international assessment in 2015 that the country was provided with a snapshot of its quality and an understanding of where it stood in relation to other countries. Present research focuses on analyzing the performance of Kosovar students in the PISA assessment in order to provide an overview of influencing factors and drive policy making to improve the overall quality of education system. Current research makes use of the PISA Data Explorer available in the website of the Organization for Economic Co-operation and development ([OECD PISA Explorer, 2015](#); [OECD PISA Explorer, 2018](#)). In 2018, 5058 students from 224 schools participated in the assessment, representing 25number of participants, specifically 4,826 students participated, representing 31,546 students across the country. PISA results reveal that Kosovar students are among the lowest performing students in the PISA assessments. The disheartening revelation that achievement did not improve between assessment years receive little to no attention in the political cycles nor did it attract more attention in the academic discourse. In fact, PISA 2018 was presented as a success, but in fact the only significant difference was the large drop in science achievement of Kosovar students, which ironically happens to be the largest drop in student achievement across all participating countries in the 2018 assessment. The data from the PISA 2015 and 2018 assessments reveal that Kosovo is among the lowest performing countries, with the highest number of low performers and lowest number of high performers across all PISA scales. In addition, PISA assessments reveal that the achievement gap across different student categories is only expanding from one assessment to the other. An achievement gap of half a year expanded to over one full academic year difference in the 2018 assessment, a gap that attests to the lack of equity in the education system. Another largely influencing factor in student achievement are the teacher characteristics and approaches. To that end, teacher characteristics such as providing feedback, showing an interest in students, providing help and assistance in most lessons are linked to higher achievement of students across all domains and years, compared to cases when teachers rarely or never show interest, provide feedback and help. Overall, the value of such assessments lays in the argument that they are a strong statistical base son which policies and interventions can be built. PISA assessments reveal that in addition to a low quality education system, the country has an education system that lack equity and drives achievement gaps among student categories. In literature education systems that are considered to be of high quality are also the ones where equity prevails. Finally, for a country that has exhausted its financial and human resources on preparing in-service teachers to teach new curricula and update teaching methodologies, PISA assessment results are a wake-up call. To that end, providing students with supportive classrooms where teachers show an interest in the individual needs of student may just be more worth it than earlier assumed.



### **Supportive classrooms: Using international assessments to guide pre-service teacher training in the Faculty of Education at the University Isa Boletini Mitrovica**

Education research has explored the role of a long list of factors on student achievement. It is almost common knowledge that teachers shape students learning (Burroughs et al., 2019) but what we still do not understand is how to make teachers more effective in teaching students. In Kosovo, during the last decades much has been done to improve the teaching capacities of pre-service and in-service teachers, such approaches have mainly focused on the quality of instruction. The last two decades of focusing almost entirely on teacher content knowledge and teaching methodologies have resulted in low performance of Kosovar students in international assessments. While a lot has been done to prepare future and current teachers on how to teach the curricula, very little has been done to teach them how to build a supportive classroom climate, which would emphasize teacher support for learning and overall understanding towards students. In this regard, the research bridges this gap by exploring which teacher characteristics influence student achievement. Current analysis utilized the data provided from the TIMSS assessment of 2019 (IEA Explorer, 2019). In 2019, 4754 students from 145 schools across participated in the assessment. TIMSS data provide that teacher based characteristics such as teacher understanding, teacher expectations and teachers' ability to inspire impact student achievement in mathematics and science to a great degree. Data provides that both in mathematics and science, student achievement was higher when teachers have very high expectations for students, the latter perform 20 points higher than when teacher have only high expectations for students. The achievement gap only widens when teachers have lower expectations for students. The same trend is prevalent when it comes to teachers' ability to inspire student learning and teachers' understanding for students. Considering the data available from the TIMSS study current research explores the teacher training program at the Faculty of Education at the University Isa Boletini Mitrovica in order to reveal the degree to which pre-service teachers are prepared to adhere to their own characteristics and taught to create supportive classroom climates. The study focuses on an analysis of study curricula, course syllabuses and overall content delivered to pre-service teachers. Overall, the study focuses on how the Faculty of Education is utilizing education research to guide teaching and practice. In making education research the core of education practice, Faculties of Education in Kosovo need to develop meaningful curricula that build on research data and guide practice.



### **Improving curriculum content: Measuring the impact of home and parents' background on children's' school achievement**

Teacher training programs are focused on continuous development and improvement, in the function of quality in the preparation of future teachers. The focus of these programs is still to teach the curriculum, very little has been done to improve the content and curriculum given its essential role in providing quality learning and supporting the development of competencies needed for learning throughout life as well as the competencies necessary for the holistic development of children. Continuous knowledge and improvement of the curriculum in teacher preparation programs, emphasizes teacher support for learning and overall understanding towards students. There is now a plethora of studies showing that home environment and parenting characteristics play an almost equally important role in children's academic achievement. In this regard, the research bridges this gap by exploring how home environment, parents' highest level of education and employment situations, opinions about their child's school, their child's attendance in the preprimary education program as per parents' willingness considering the importance of early education, and their perceptions of their child school, influence student achievement. The current analysis utilized the data provided from the TIMSS assessment of 2019 (IEA Explorer, 2019). 4307 students participated in the TIMSS assessment in 2019. TIMSS data provide that home environment such as resources for learning and number of books at home, as well as parents' education and occupational level and child's attendance in preprimary education program, impact student achievement in mathematics, science, and environmental awareness to a great degree. As an influencing factor in student achievement in both mathematics, science, and environmental awareness, is a child's attendance in the preprimary education program. Data provides that children, who attended at least two years of preschool education, performed 28-38 points higher than children who did not attend the preschool programs. Regarding the home and parents' background, data provides that in mathematics, science, and environmental awareness, student achievement was higher when there were many resources and books at home, when parents have a university degree and work in a professional environment, the latter perform 27-30 points higher. The same trend was not prevalent when it comes to parents' perceptions of their child's school, which shows no statistical differences regardless of their perception. The results of this research, in the framework of the teacher training program at the Faculty of Education at Isa Boletini University in Mitrovica, will be used to understand the importance of family factors and parents' background to improve curricular content in the inclusion of such important and necessary topics in the preparation of future teachers.

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