



**ATEE**

Association for Teacher Education in Europe



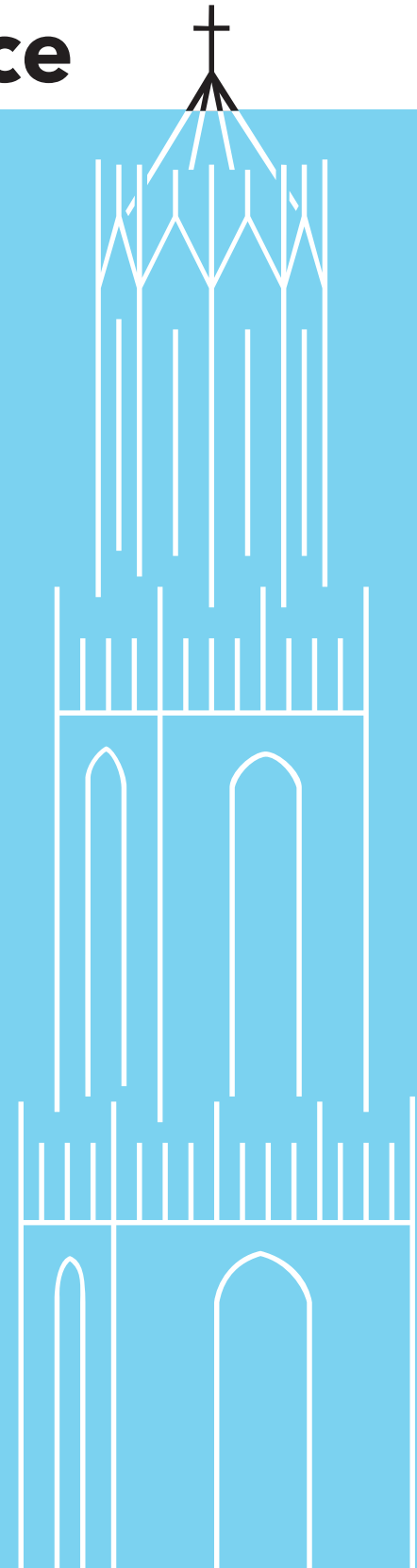
**HOGESCHOOL  
UTRECHT**

# **ATEE Winter Conference**

## **Technology and Innovative learning**

### **Book of abstracts**

**15-16 February 2018  
Utrecht, Netherlands**



# Preface

Archimedes Institute of Utrecht University of Applied Sciences is delighted to welcome and host the Association for Teacher Education in Europe (ATEE) Winter Conference 2018 in Utrecht, the Netherlands.

The 2018 ATEE Winter Conference has a strong focus on **technology and innovative learning**. Teachers and teacher educators are increasingly challenged to innovate their educational practices and align this with the learning needs of contemporary adolescents. Furthermore, educational researchers face the complex task to study the implementation and outcomes of the use of digital technology in innovative learning environments. The conference combines findings of empirical research with experiences from practice by sharing tools, hands-on examples and teaching methodology in order to increase and enhance both regular and refugee student learning experiences.

The conference subthemes are:

## *Teacher Education & Digital Technology*

Digital technology increasingly becomes an essential component of the working practice of teachers and learners. Innovative tools, such as Video Games, Virtual Reality and Augmented Reality, represent a challenge to optimize existing educational design principles, to change teacher thinking, to apply new teaching methods and to support learning processes inside or outside traditional classrooms. We will focus on effectively integrating digital technology in teacher education. Moreover, we are very interested in how teacher educators perceive the value of such innovative technologies for their educational practice. Therefore, this sub-theme of the conference concentrates on conceptual, theoretical and empirical research related to digital technologies in (school) education, primarily through the spectrum of teacher education.

## *Professional Development of Teachers*

Professional development of teachers fosters and provides support for teacher quality and in turn contributes to powerful school communities and strengthens educational quality. We will share findings or discussion topics that contribute to insights in various ways of professional development of teachers. We especially welcome contributions that relate to the use of technology and the creation of innovative learning environments. Some examples of research for professional development: outcomes of and experiences with professional learning communities or teacher learning networks, lesson study practices, on job coaching, school team development, and academic schools. Other examples of topics are related to, for example, management or school support for professional development and schools collaborating for professional development.

## *Refugee Education*

Today, only 14% of young people in poor countries complete their studies up to higher education and this figure is down to 1% for refugee children and almost non-existent for girls. The situation is even more challenging in sub-Saharan Africa where 70% of countries face teacher shortages and 90% of them do not have enough secondary school teachers. To address this global challenge on education in emergencies, this conference theme on refugee education will bring necessary awareness as to how the role of teachers and teaching needs to evolve. We will share research papers and/or documented individual best practice experiences on refugee education to facilitate subsequent co-creation of innovative learning solutions for refugee education.

# Organisation of Conference

## ATEE and University of Applied Sciences Utrecht

The ATEE Winter Conference 2018 is organised by the Archimedes Institute from the HU University of Applied Sciences Utrecht. The HU is an ambitious university in dynamic surroundings. As a university of applied sciences, the HU provides education and conducts research. Archimedes is the teacher training faculty of the University.

ATEE, the Association for Teacher Education is a non-profit European organization, whose aim is enhancing the quality of Teacher Education in Europe and supporting the professional development of teachers and teacher educators at all levels.

The ATEE tries to reach its aim through active dialogue and international exchange of research and practice in initial and in-service teacher education. ATEE's members come from a wide variety of countries within Europe and beyond. As a result, the ATEE is a multicultural association with a wide expertise on the various fields of teacher education.

## ATEE Administrative Council members

Åsa Morberg, President (University of Gävle, Sweden), Davide Parmigiani, Vice President (University of Genoa, Italy), Birger Brevik (Oslo and Akerhus University, Norway), Kay Livingston, Editor EJTE (University of Glasgow, United Kingdom), György Mészáros (Eötvös Loránd University, Hungary), Kate Reynolds (Bath Spa University, United Kingdom), Marija Sablic (University of Osijek, Croatia), Olena Shyyan (Lviv State University of Physical Culture, Ukraine).

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Marianne Konings, Project Coordinator, Innovation Lab HU  
Rosanne Engberts, Communication & Press  
Esther Bergé, Communication

# Partners of the ATEE Winter Conference 2018

## Perfect Storm

Before they founded The PerfectStorm, Keimpe de Heer and Frank Evers worked together in various settings to foster innovation in education. They noticed the missing link in most schools was togetherness and effective collaboration. Teamwork with focus from different angles. They came up with the idea of combining the best proven essentials in educational innovation into one exiting learning experience where teams work on their own innovation, supported by the worlds most appreciated innovators and entrepreneurs. For the third year in a row, The PerfectStorm 2018 collaborative conference is build around design thinking as a process for leading creative progress, learning design with a focus on deep learning and the use of student centered technology.



## ICEFIL

ICEFIL is an International consortium of leading Universities and other Institutions dedicated to advancing the use and impact of innovative learning. ICEFIL provides a collaborative sharing platform (to our members) to deliver innovative products and services developed and field-tested for the education communities including Universities, School Boards, Research Groups, UN Organizations, International NGO's plus others.



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# Theme

## Professional Development of Teachers



**Name: Dr. Maureen Andrade, Utah Valley University**

**Title: Facilitating Self-Regulated Learning in Online Courses: A Model for Teacher Training (PDT-01)**

**Mode of presentation: Paper**

Distance education delivered through technology enhanced learning environments provides a solution to the increasing global demand for higher education. These environments can aid the development of learner self-regulation, or the ability to control the conditions that affect learning, a prerequisite for success in distance education. Based on the theories of transactional distance (Moore, 2007) and self-regulated learning (SRL) (Zimmerman & Risemberg, 1997), the Model of Self-Regulated Distance Learning has been applied to online distance English language courses to increase learner self-regulation (Andrade & Bunker, 2009, 2011). Previous studies have explored the model's effectiveness by examining student learner journals (Andrade & Bunker, 2011), interviewing learners to determine retention of self-regulated learning (SRL) behaviours, and analysing teacher feedback on SRL assignments.

The latter study demonstrated that students were doing the SRL activities superficially and teachers were not providing appropriate or adequate feedback. To address this, teacher training units were designed and implemented. This presentation reports on a study that examined the implementation and effectiveness of the materials in improving teacher response and increasing learner language proficiency and SRL behaviours. The study addressed the following research question: How effective were the training materials in improving the teaching and learning experience to meet course outcomes? Teacher feedback on the materials, teacher response to students, and student work was examined to answer this question.

**Name: Dr. İlknur Bayram, University of Turkish Aeronautical Association**

**Co-author: Prof. Dr. Fatma Bıkmaz**

**Title: Piloting Lesson Study with Turkish EFL Teachers (PDT-30)**

**Mode of presentation: Paper**

This study aims to present the findings of a pilot Lesson Study (LS) implementation in a Turkish university which took place between May and June, 2016 with the participation of three EFL teachers. Since an in-depth analysis of a group of teachers was required in order to have a comprehensive understanding of what issues and challenges are experienced by teachers, the study was designed as a qualitative case study. Data obtained through observations, interviews and document analysis was subsequently coded and interpreted through content analysis. Results showed that although it requires devotion and time, LS can be an effective professional development model if enough support and guidance is provided.

**Name: Dr. Özlem Canaran, University of Turkish Aeronautical Association**

**Co-author: İlknur Bayram**

**Title: A teacher-led CPD model for EFL Teachers: ELT Fusion (PDT-29)**

**Mode of presentation: Campfire**

The purpose of this session is to introduce the design, implementation and evaluation of a teacher-led CPD model for EFL teachers who teach English to undergraduate students at a foundation university in Turkey. The model has been framed in light of the current perspectives on teachers' continuous professional development and aims at fostering self-reflection, teacher collaboration and teacher research skills to enhance teaching and learning. The model consists of 5 cyclical phases: (1) determining teachers' professional needs, (2) offering teachers various CPD practices in view of their needs, (3) implementation of the practice (4) presentation (5) evaluation. The data were collected through evaluation survey, interviews and document analysis. Content analysis was conducted to determine the perceptions of the teachers regarding the model. The findings indicated that the teachers' views on their professional learning through our teacher-led CPD model were centered on encouraging self-reflection, fostering collaboration, developing research skills.

**Name: Ms. Valeria Catalano, Hogeschool PXL**

**Title: Meaning making in the classroom: the relation between meaning oriented teaching, the curriculum for teacher training and the professional profile for teachers in Flanders (PDT-27)**

**Mode of presentation: Poster**

This pilot research has focused on the relation between meaning oriented teaching in classroom practice, the curriculum and the professional profile for teacher training in Flanders. The case was specifically analysed for French Foreign Language as a subject in secondary schools.

As there is too often not enough focus on participation and involvement in classroom practice as on the students' deep learning, "meaning-oriented teaching" was re-defined.

With this new definition, an observation tool was developed and tried out with 38 students during a two year teaching practice period in order to find out about the relation between complex skills, the teacher training programme and the particular professional profile for teachers in Flanders, Belgium.

Therefore, 7 experts in education, responsible staff members and 14 students were extensively interviewed. Furthermore, the observation tool was presented to two focus groups of secondary school teachers, 40 teachers were questioned and 38 students (104 lessons) observed.

The level of processing learning contents and learning materials was determined with a group of 26 students. Finally 10 teacher-training programmes for French Foreign Language in Flanders were compared. The data gathered in the pilot study suggest that a consensus on curriculum development for teacher training is mandatory, in which the focus should be on meaning oriented learning contents and learning materials, training of higher levels of processing, intensive coaching of meaning oriented teaching within the programme of teacher training.

**Name: Dr. Luciano Di Mele, Uninettuno University**

**Title: Agent-based Simulation for teachers and technology in schools (PDT-20)**

**Mode of presentation: Paper**

Many plans and projects support the development of digital education in schools. The results, both in terms of innovation and digital development, have been poor or of no proportional relevance compared to investments. The paper presents a new perspective to face this challenge. An agent-based model in NetLogo environment simulates some scenarios for the use of technology in schools. The aim is to build a tool analysis based on a systemic vision of the school, useful for teachers involved in innovation. The hypothesis is that the success of technology in the school is determined not only by the teachers' digital competences, but by the stakeholders' quality of relationships: teachers, school headmaster, parents, administrative staff, students. Netlogo allows to design a high number of different scenarios with the same agents, changing some parameters. Some of the results show that social interaction between agents is certainly an important and fundamental element to support every type of initiative, but it is not enough because, at the same time, it is also necessary to have a technical growth in the school environment. In general, the simulation shows that training is not efficient if relationships between teachers are poor. Furthermore, the students' involvement is productive if they have a privileged and continuous relationship with their teachers.

**Name: Dr. Anna Dipace, University of Foggia**

**Co-authors: F. Feldia Loperfido , J. Viteli, K. Caposeno, C. Bellini, A. Scarinci**

**Title: Underequipped skilled educators. The case of Southern Italian high school teachers for students with special educational needs (PDT-15)**

**Mode of presentation: Paper**

This contribution presents a research realized from Erid Lab - University of Foggia (IT) to grasp how Southern Italian high school teachers perceive digital culture at school. Namely, we adapted a 106-items questionnaire produced by Opeka, a Finnish research project with similar purposes. Then the questionnaire was administered to 157 teachers participating in a course to learn to teach students with special educational needs (e.g. disability, socioeconomic disadvantage, cultural difficulties, etc.). Some of them already teach, whereas some others are still in training. After the administration of the questionnaire, we used IBM SPSS to calculate the reliability of four subscales measuring corresponding factors useful to analyse the schools' digital culture, as suggested by literature. These factors were "Leadership and Management", "Resources and Access to resources", "Confidence and Competence", "Motivation and Time". Then, we calculated descriptive statistics for the emerged sum variables and the difference between the two groups of teachers (those who already teach and those who are still in training). Preliminary results show that there are low levels of access to resources and very often schools do not have innovative devices. Despite this result, however, the skills of managing the technological tools for education, the level of competence and confidence, and the motivation and time are relatively high. Furthermore, in-training teachers seem to be more motivated and confident than the experienced ones.

**Name: Ms. Zerrin Doğanca Küçük, Bahcesehir University**

**Title: STEM Teaching Efficacy Beliefs of Preschool and Classroom Teachers in an Early STEM Program (PDT-25)**

**Mode of presentation: Paper**

This paper aims to examine self-efficacy beliefs of preschool and classroom teachers who implemented EarlySTEM program for a whole school year. The EarlySTEM program was designed for 4-10-year-old students, however throughout the program limited hours of training sessions were included to support the practitioner teachers. In this study, the modified version of STEM Teaching Efficacy Belief Instrument based on the Science Teaching Efficacy Belief Instrument was used as the instrument. The overall research seeks to compare STEM teaching efficacy beliefs of the practitioner teachers at the beginning and at the end of the school year. Moreover, examination of the teachers' STEM teaching self-efficacy beliefs with respect to their teaching experience and past STEM teaching experience will be presented in the conference.

**Name: Dr. Karolina Duschinská, University of Chemistry and Technology Prague**

**Co-author: Radka High**

**Title: How to motivate new university teachers for student-centered learning? (PDT-23)**

**Mode of presentation: Campfire**

Professional development of university teachers is currently and important issue, due to the lack of their teacher education and due to the overall change of student population at universities. This contribution will introduce a newly developed course for new teaching assistants at the University of Chemistry and Technology Prague. The analyze of our experiences from the course curriculum, teaching methods and results shows the benefits of tandem teaching by one expert on pedagogy and one on psychology and a high importance of congruent teaching and applying active learning strategies.

**Name: Drs. Emma Gazdag, Eötvös Loránd University**

**Co-authors: Judit Szivák, Krisztina Nagy**

**Title: The impact of video stimulated recall on novice teachers' commitment to continuous professional development (PDT-19)**

**Mode of presentation: Paper**

The aim of our research was to examine the use of video stimulated recall (VSR) methodology with systematic literature review (SLR). Reflective pedagogical thinking is a significant and relevant research area of the international educational science (Creswell 2014; Polat, 2015). In the past decades reflective thinking became a fundamental component of the pedagogical sciences, teacher education and teacher evaluation system. However, this field is still lacking thorough empirical studies and SLR examining the use of VSR. Therefore, as part of an extensive research our aim was to examine the potentials of VSR for investigating novice / trainee teachers' professional development over the past four decades. Pedagogical reflectivity is a fundamental and divers component of the international teacher education. The VSR methodology is suitable for exploring many aspects of the continuous pedagogical development (Freitas, Jiménez & Mellado, 2004) such as decision making (Bennett, 1991; Byra & Sherman, 1993), classroom interactions and actions (Kwo, 1994), prior experiences (Powell, 1992) and so forth. Our findings show that VSR is a suitable method to examine novice teachers' developmental paths, values, beliefs, assumptions, strategies and decisions (Borg, 2006). Contrary, VSR should be accompanied by other methods such as attitude-scales, questionnaires, reflective drawings (Stanulis, 1995, Zimmerman, 2015), portfolios, think-aloud strategies (Allison, 1990; Hickman, 2013), reflective diary (Stanulis, 1995; Yerrick & Hoving, 2003), and journal techniques. Our study will present the conceptual and historical foundations of the VSR methodology and the findings of our SLR focusing on the characteristics and use of VSR in teacher education.

**Name: Prof. Dr. Rick de Graaff, Hogeschool Utrecht University of Applied Sciences**

**Co-authors: Kristina Goodnight, Tobey Nelson**

**Title: Investigating the connection between teacher training and classroom practice: validation and application of an observation instrument for subject-specific pedagogy (PDT-21)**

**Mode of presentation: Round Table**

Subject-specific pedagogy courses comprise an essential element of the professional development of teachers at the University of Applied Sciences Utrecht (HU, the Netherlands). Unsurprisingly, for modern foreign languages (English, German, French, and Spanish), these methodology courses place an emphasis on Communicative Language Teaching (CLT). HU teacher educators, however, report that the CLT-approach is not consistently present in the (internship) classrooms at local secondary schools. To gain better insight into the (lack of) connection between professional training and common practices in foreign language classrooms, an observation instrument was developed to specifically investigate to what extent the core principles of CLT are present in actual teaching practice.

In this round table, the development and validation process for this observation tool will be described, and preliminary results from two pilot studies will be presented. Moreover, we will invite participants to reflect on the potential value of this (type of) instrument for the professional development of teachers (in training), especially as a means to bridge gaps between theory and practice. We are particularly interested in the value of a tool designed to assess the presence of state-of-the-art subject specific pedagogic approaches in the classroom and the effect of the use of such a tool on the perceptions, beliefs, and practices of both observers and observees. We will also discuss possible additional steps in the validation process (e.g., additional groups of users and/or additional data sources), as well as directions for intended, future (design-based) research.



**Name: Dr. Miranda de Hei, Hogeschool Utrecht University of Applied Sciences**

**Title: Stimulating interaction in collaborative learning (PDT-05)**

**Mode of presentation: Workshop**

In all levels of education collaborative learning is a frequently used teaching method. In order to achieve desired learning outcomes, such as knowledge construction, development of metacognitive skills and higher order thinking skills, good quality interaction between pupils or students is required. Different kinds of instructions and assignments lead to different kinds of interaction, and influence the effectiveness of collaborative learning. When designing and implementing a collaborative learning assignment, the desired interaction needs to be aligned with other design components, for example the learning goals, the guidance of the teacher and the facilities. The design of the digital facilities are especially important when it regards online collaborative learning. Hereafter, evaluating the group process and the interaction that took place, will also contribute to the effectiveness of the group work. In this workshop the participants will work on three different collaborative assignments to experience what kind of interaction is stimulated by each kind of group assignment. The purpose of the workshop is to generate insights about the extent to which different kinds of group work influence the interaction in the group and how it consequently influences the learning outcomes of the collaborative work.

**Name: Mr. Basak Helvaci, Bahcesehir University**

**Presenter: Zerrin Doğanca Küçük**

**Title: STEM Ethics (PDT-34)**

**Mode of presentation: Paper**

STEM Education encounters the issue of ethics as every discipline has met, especially for the requirement of using the internet widely in professional development programs makes it essential to examine ethical issues. The purpose of this study is to show the importance of the implementation of academic integrity as a part of the professional development program as a training section instead of pointing out the importance of giving references without stating any standards or providing any instruction how to give references. Therefore, the levels of academic dishonesty and ethical concerns of teachers in Integrated Teaching Project (ITP) STEM professional development program were investigated. During the academic year, intervention program focusing on integrated teaching knowledge had been held. 736 teachers of elementary and high schools from 60 different cities of Turkey enrolled to an online course and participated in webinars, followed workshop videos. These teachers prepared lesson plans to implement STEM disciplines into their lessons. These lesson plans were assessed by rubrics and references sections were investigated thoroughly. As a part of the program, asynchronous videos pointing out the importance of giving references without stating any standards or providing any instruction how to give references were reached by teachers on the learning management system. Overall, submissions were classified in four main ways of plagiarism indicating severity of plagiarism. Findings show that teachers' education level, years of professional experience, gender, age, even geographic locations and cultural factors effect severity of plagiarism.

**Name: Drs. Irmgard den Hollander, NHL Institute of (primary) Education**

**Title: Mastering the master (PDT-13)**

**Mode of presentation: Workshop**

In this two-year research project we are developing an interactive intervention to increase the professionalisation of primary school teachers. This intervention is using the unique capabilities of game technology. The intervention aims to raise awareness and motivation in recognising giftedness in schools. Furthermore, we want teachers to gain more knowledge of giftedness and more understanding of the diversity of the target group. One aim is to develop a positive attitude of teachers towards gifted pupils, rather than resentment, or singular focus on disadvantage. Also teachers will be able to increase their own teaching repertoire in the classroom towards gifted students. Thus it helps to diversify the teacher experience. The intervention consists of playing a digital game, followed by a reflection meeting, based on the results of this game. The game is set up in a virtual school, where the players will learn more about the (gifted) students. Teachers will learn about different characteristics of giftedness and will be challenged to compare these with their own image of giftedness. Deepening will be offered on different forms of giftedness, as also on the role a teacher has regarding ways in which the giftedness is allowed to be expressed by the student. By means of a dashboard at the end of the game, individual - and school team results will be visual for the player. These outcomes of the game are the input for team reflection. Here we try to connect to the principles of a professional learning community (PLC), in which teachers want to work together to achieve good education for all students.

**Name: Dr. Anna Hotze, Hogeschool iPabo Amsterdam**

**Co-authors: Jantien Smit, Martine Gijssel**

**Title: Scaffolding Primary Teachers in Designing and Enacting Language-Oriented Science Lessons (PDT-06)**

**Mode of presentation: Paper**

Integrating language learning in science lessons has been advocated in primary education but little educational materials exist to facilitate this. The purpose of the design-based research reported here is to show how the idea of scaffolding can be used to support primary teachers in a professional development program (PDP) to design and enact language-oriented science lessons. In this study 28 in-service primary teachers in two Dutch professional learning communities (PLC's), took part in six sessions of 2,5 hours each. The central idea in the professionalization trajectory was the language support teachers could give to help pupils gain understanding during science lessons. The first research question is how scaffolding was enacted during the PDP. The analysis of video recordings, questionnaires, field notes, researcher and teacher logs focused on evaluating the scaffolding approach in the PDP. The results show many instances of online and offline diagnosis and responsiveness, giving insight in the effects of the scaffolding approach. The second research question concerns what teachers learned from the participation in the PDP. All teachers' pre- and post-questionnaires as well as a case study of two teachers using interview data have been analysed. Results show most utterances coded as 'changes in knowledge and beliefs' and in the end-term interviews utterances indicate mostly 'changes in practice'. These results indicate that teachers are using language promoting strategies in science lessons more often.

**Name: Dr. Sheree Jederberg-Audet, Emirates College for Advanced Education**  
**Title: The Perception of Emirati Teachers about the impact of implementing Professional Learning Communities on their self-efficacy and job satisfaction (PDT-26)**  
**Mode of presentation: Paper**

In this phenomenological study the researcher aimed to investigate the experience of Emirati teachers regarding their perception about their experience with Professional Learning Communities in the UAE, specifically in the Abu Dhabi Emirate, and whether there was an impact on their self-efficacy and job satisfaction. The main two research questions are as follows: What are the perceptions of Emirati teachers on whether changing schools into Professional Learning Communities (PLCs) have an impact on their self-efficacy as highly effective teachers and provide them job satisfaction? The number of participants was nine teachers, all work in Government Schools. The researcher conducted nine semi-structured interviews with the Emirati teachers. The interviews included twenty-two open ended questions. The data was analyzed through different stages, first organizing the data; second, familiarizing; third, coding; fourth reducing, fifth interpreting and representing the data. The findings revealed three main themes, as follows: first work environment, second self-efficacy and finally impediments or barriers.

**Name: Ms. Annika Käck, Stockholm University**  
**Co-authors: Sirkku Männikkö Barbutiu, Uno Fors**  
**Title: Migrant teachers' experience with digital competence during their placement period in Swedish schools (PDT-16)**  
**Mode of presentation: Paper**

Professional development programs in teacher education for migrant teachers are provided at six Universities in Sweden. Migrant teachers study 1-3 years to become eligible to teach in Swedish schools. Part of their training is the placement period, during which they get to know the Swedish school environment. They have a placement supervisor to guide them. In this study, we examine migrant teachers' digital competence during their placement period using the concept of "ways of thinking and practicing". Data in this qualitative study was collected through five focus groups (a total of 25 teachers) and nine individual interviews. The migrant teachers' former teacher educations were completed in 20 different countries. The results indicate that the placement supervisor at a school plays an important part as a role model, inspiring and challenging migrant teachers in their understanding of the potential of digital tools in teaching and learning. Findings also show that migrant teachers find some of the ways of thinking and practicing in Swedish schools unfamiliar, which has implications for how information technology is used. They also discover new ways of teaching - for example, how to use students' feedback from a lesson in order to make future lessons using ICT more student-focused. During the placement period, migrant teachers have the opportunity to develop their digital competence in authentic learning environments and to receive valuable pedagogical feedback from a placement supervisor. Thus, further competence development of the placement supervisor in the pedagogical use of ICT is important for the development and motivation of migrant teachers.

**Name: Assoc. Prof. Dr. A. Cendel Karaman, Middle East Technical University (METU)**  
**Title: Rethinking E-Portfolios to Support the Construction of Teacher Identity in Teacher Education (PDT-31)**  
**Mode of presentation: Paper**

In this paper, I explore the process of designing, revising, and evaluating the e-portfolio construction through the eyes of a teacher educator. The need for rethinking e-portfolio construction processes emerges from observational data across several cohorts who experience challenges in utilizing this space as a venue for dynamic professional development endeavors rather than static task completion. Grounded in the self-study research genre in teacher education, this study presents a teacher educator's inquiry into efforts towards advancing professional development of teacher candidates enrolled in an English teacher preparation program. The focus is on the ecology of prospective teachers' e-portfolio construction processes and the journey of becoming a teacher. As part of the year-long portfolio construction process, teacher candidates continue to generate their reflections on practice, observational reports, teaching philosophies, and professional autobiographies. A qualitative content analysis of prospective teachers' portfolios and supervisor's interpretations help inquire into conceptualizations of teaching, education, and professional identity among pre-service teachers and teacher educator's interpretations. In the end, the researcher aims to develop a framework that would facilitate dynamic professional identity development efforts as part of the field experiences in teacher education.

**Name: Mr. Glynn Kirkham, National Institute for continuing Professional Development Czechia**  
**Title: Developing a European methodological framework for collaborative teachers' learning (PDT-09)**  
**Mode of presentation: Paper**

The presenter will report on the findings of a six-country, Erasmus+ international project in which partners examined the phenomenon of collaborative teachers' learning in order to design an ebook with a methodological framework on which teachers' professional learning might occur and then might be built. Using a participatory (Bergold & Thomas, 2012), action learning science (Argyris & Schon, 1985) approach following a Kolbian (1984) cycle, we first provided examples from each country of the lived experience (Ozols, 2016) and analysed these to derive common sets of practice and principles which can be found in collaborative teachers' learning.

Having established these, we set out to verify them through piloting and workshops with a range of stakeholders. The emerging results have enabled the project team to establish not only a set of guidelines and toolkit to support collaborative teachers' learning but also a methodological framework on which those who wish to facilitate active learning in collaborative environments may construct their own activities. With Megginson and Whitaker (2007), we have come to recognise Revans' (1998) notion - described by Abbott & Taylor (2013) as Revans' 'ecological formula') that individuals cannot survive unless their rate of change is equal to or greater than the rate of change being experienced around them. Further, the opportunities afforded by digital technology in enabling professional learning (e.g., in Aubusson, Schuck & Burden, 2016) do not preclude the value of face-to-face opportunities for learning.

**Name: Ms. Helena Kovacs, Eotvos Lorand University**

**Title: Unfreezing pedagogies: a Portuguese perspective on teacher professional learning through pedagogical innovation (PDT-10)**

**Mode of presentation: Paper**

School change that fits the requirements of the 21st century acknowledges the fact that teacher professional learning, educational innovation and visionary leadership go hand-in-hand. Yet, all these three elements are conglomerates of complexity thus understanding the inner-functioning of successful modern schools reveals the need for a comprehensive attempt at education that involves a change of mind-set, autonomy, professionalism and reflectiveness.

Presentation Unfreezing pedagogies: a Portuguese perspective on teacher professional learning through pedagogical innovation brings forth results from a study that attempts to expose and interpret how these complexities related to teacher learning while dealing with innovations at a school level work and what makes them successful. Intertwined with policy measures, the case shows the efforts of teachers and the role of leadership, and provides food for discussion related to implications for research, policy and practice.

**Name: Dr. Emilia Kramkowska, University of Białystok**

**Co-author: Wioleta Danilewicz**

**Title: A contemporary teacher towards seniors' education (PDT-28)**

**Mode of presentation: Round table**

In contemporary aging societies, the model of active aging is becoming very common. According to one of the theories of aging - the theory of activity - activity is a social and mental need of people of all ages. It is emphasized that a human during his life plays different roles, which give the basis of his identity. The elderly, in order to maintain a positive image of themselves, must replace new roles with those that have lost with the aging process. Thus, activity is treated as a substitute activity, inscribed in the role of an old man.

In accordance with the assumptions of this theory, seniors are offered various activities including educational ones, allowing them spend time in an attractive way, broaden their knowledge, acquire new skills and maintain a positive image of themselves. Senior education has become an important area in pedagogy. Based on diagnostic survey carried out in Podlasie province, among people aged 60+, the presented paper will discuss the educational needs of seniors. The research will be a source of information about the learning methods preferred by the respondents and also profile of people working with seniors, characterizing their features, competences which have a positive influence on seniors' education course. The presented material will allow to notice practical implications for people involved in senior education.

On the basis of the presented contents, the following questions will be the subject of discussion: are the educational needs diagnosed among Polish seniors universal or local? What difficulties in working with seniors are noticed by pedagogues? What examples of good practices applicable in other countries could be introduced in Poland?

**Name: MSc. Bart Lamboo, The Hague University of Applied Sciences**

**Title: In motion around blended learning (PDT-07)**

**Mode of presentation: Round table**

The toolkit of teachers has been supplemented with many digital tools in recent decades (Rubens, 2014), but what makes teachers actually use these new possibilities?

At The Hague University of applied science the implementation of Blended learning is not in a adult stage yet. In a newly introduced educational framework (The Hague University of Applied Sciences, 2017) blended learning plays a more vital role. The intention is for teams to come to a shared approach when it comes to blended learning. In his blog (Geluk, 2016) the Chairman of the Executive Board of the University notes 'the development is slow to get off the ground' and 'there is still work to be done before we can fully embed ICT in the education.' The teacher perspective is central to this study. Through in depth interviews with lecturers of two faculties and use of the methods design thinking and frame creation this study attempts to find practical ways to set the wheels in motion around blended learning at the Hague University.

**Name: Dr. Stella Long, Mary Immaculate College/University of Limerick**

**Title: Professional Development of Special Education Teachers: An Ecological Perspective on Special Education Teacher Learning in Mathematics (PDT-36)**

**Mode of presentation: Paper**

This study focused on a Professional Development (PD) programme, a Post Graduate Diploma in Special Educational Needs (PGDSEN) in a Higher Education Institute in Ireland. The study sought to understand the factors (individual and contextual) influencing Special Education Teacher (SET) learning in mathematics. It identified the perceptions and experiences of the participants, SETs, of the influence of the mathematics input on the PGDSEN programme on their acquisition of knowledge and skills. The study examined the perceptions of the SETs of the transfer of their learning to practice. The conclusions of the study aim to inform future policy, provision and research initiatives to further support and enhance the teaching of mathematics in inclusive and special education settings. The participants were the primary/special school teacher cohort (n=32) of a PGDSEN programme. Set within a constructivist paradigm, this study adopted a case study design. Conducted in four phases over a 30 month period, the methodology was primarily qualitative. Bronfenbrenner's (1979) ecological theory provided a framework to identify, organise and understand the complexity and interaction of factors influencing SET learning in mathematics.

The application of Bronfenbrenner's (1979) ecological theory to the findings suggested that the learning of the SETs was nestled within a series of inter-related systems (microsystem, mesosystem, exosystem, macrosystem). The interactions between and within the systems (ideologies, beliefs and structures) influenced SET learning and the transfer of their new learning to practice. Successful outcomes were dependent on the interplay of factors at each of the four layers in Bronfenbrenner's (1979) model.

**Name: Dr. Canan Mesutoghu, Bahcesehir University**

**Presenter: Zerrin Doğanca Küçük**

**Title: earlySTEM Teachers' Teaching Practices and Views Regarding the earlySTEM Program (PDT-18)**

**Mode of presentation: Paper**

earlySTEM program is built on the cognitive and affective development of young learners, from kindergarden to 4th grade level. Within the context of this year-long program, the goal of the study was to investigate teachers' teaching practices and their views on the program. The program at its second year is implemented in 26 schools with the participation of 212 teachers in total. Each school was assigned a teacher leader to guide teachers' practices and duties. For the current study, data were collected from 100 teachers through earlySTEM evaluation survey and teacher reflection forms. Findings emphasized; a) earlySTEM teachers' teaching practices and b) how these practices might change towards more effective as they proceed in the program. Results put forth earlySTEM teachers' views on the impact of the program.

**Name: Dr. Elisabeth Mix, Butler University**

**Title: Rhizomatic Approaches for Sustainable Faculty Development (PDT-14)**

**Mode of presentation: Campfire**

How many times have you participated in a faculty development session in which gaps, issues, or problems were identified, and some great ideas bubbled up, but afterwards there was no follow-up, no mechanism or structure in place (physical or digital) that supported you to do more than just feel overwhelmed by the enormity of the situation?

Developed as an outcome of a HEDS Consortium workshop hosted and facilitated by the Center of Inquiry at Wabash College, The Butler University "Blue" Print for Faculty Development launched a year-long inquiry cycle in which individual faculty members identify and pursue pertinent, personal and relevant teaching questions within a network of institutional and collegial support. The "Blue" Print model will be shared and structures will be provided for participants to first excavate and then refine their own inquiry questions. Participants will next identify specific steps, resources and supports necessary to sustain the inquiry cycle over an academic year. Thoughtful and generative probing questions embedded in recursive rounds of reflective writing and partner sharing provide opportunity for participants to sketch out a year-long plan for a cycle of experimentation exploration, implementation, revision, assessment and evaluation. This process will ultimately produce new questions which exponentially generate emergent and deepening inquiry cycles.

**Name: Prof. Teresa O'Doherty, Mary Immaculate College, Limerick**  
**Title: European Methodological Framework for Facilitating Teachers' Collaborative Learning (EFFeCT 2015- 2018): Perspectives of Irish teachers and leaders (PDT-24)**  
**Mode of presentation: Paper**

As part of extensive involvement in international education the researchers are partners in an on-going European Union funded project, European Methodological Framework for Facilitating Teachers' Collaborative Learning (EFFeCT 2015- 2018) whose focus is the creation of a framework to introduce, promote, build and support the development of Collaborative Learning (CL) across schools and educational institutions in Europe. With partners in Hungary, Finland, Latvia, Czechia, UK, and Ireland, the overarching objective of the project is to facilitate policy development and well-evidenced improvement related to teacher learning at a system (state), a regional and a local level. Based on a series of case studies that demonstrated examples of CL within each country, a joint draft methodological framework for collaborative learning (DMF) was established, highlighting the characteristics and concepts that the case studies suggested were pivotal to the development of collaborative learning initiatives. The resulting framework was trialled in each of the countries to assess to what extent it was appropriate, could be adapted or needed amendment for each local context. The exercise was designed to indicate where and how the Draft Methodological Framework could be developed in order to more effectively serve the needs of a larger variety of contexts and the people working in them. This paper discusses the findings of a small-scale study (22 participants) of a cohort of educators carefully composed to reflect the range of experiences of CL within the education sector in Ireland.

**Name: Prof. Elizabeth Oldham, Trinity College Dublin, the University of Dublin**  
**Co-authors: Richard Millwood, Mags Amond**  
**Title: Developing Communities of Practice to support Computing in Irish Schools (PDT-22)**  
**Mode of presentation: Poster**

This poster examines the development of Communities of Practice to support the introduction of aspects of Computing into the Irish school curriculum. A "short course" in Coding has been developed as an option for lower secondary education; Computer Science is to be introduced as a full subject in the upper secondary curriculum in autumn 2018; and work is in progress to include coding at primary level. To offer teachers professional development for all three initiatives, the Computers in Education Society of Ireland (CESI), together with Trinity College Dublin, the University of Dublin, is setting up Communities of Practice based in six centres round the country, complementing professional development that is or will be provided by the state. Funding for one year is provided by Google. CESI is well positioned undertake the initiative because of its large membership of teachers from all levels in the education system, and its track record of supporting all types of digital technology teacher education. Building on an "Open Space" forum hosted at CESI's annual conference in March 2017, this initiative was launched at a symposium run by CESI in September 2017. During the school year, it is intended to hold three rounds of face to face meetings, together with ongoing online communication. A conference to report and examine achievements will be held in June 2018. Development of the Communities of Practice will be monitored in order to evaluate strategies used and progress of participating teachers in gaining knowledge and confidence to implement the relevant curricula.



**Name: M.ED. Cui Ping, Eindhoven School of Education**

**Title: University-based teacher educators' professional learning: A pilot survey study in China and the Netherlands (PDT-04)**

**Mode of presentation: Paper**

The pilot study compares Dutch and Chinese teacher educators' professional learning. The focus was on what they learn during their profession (content), what learning activities they undertake for that, and what their reasons are for learning. To achieve this aim, a four-point Likert scale questionnaire was constructed. The online questionnaire was sent to 31 Chinese teacher educators (in Chinese) and 28 Dutch teacher educators (in English). Our results show that Chinese teacher educators are significantly more driven by external requirements for engaging in professional learning. In general it seems that there are more similarities than differences for Chinese and Dutch teacher educators. Based on the results, it can furthermore be concluded that the questionnaire is a reliable and valid instrument to be filled out by larger groups of participants in both countries.

**Name: Dr. Maurice Schols, Fontys University of Applied Sciences**

**Title: Exploring lesson study as a transformative learning approach for teacher educators' professional development in technology (PDT-11)**

**Mode of presentation: Paper**

In recent years, teacher educators and policymakers have expressed their concerns about traditional technology professionalization programs. Learning to cope with emerging technologies and new pedagogies requires adequate professional development opportunities that meet educators' learning needs. As a result, there is a growing need to move away from traditional approaches of professional learning. This research sought to explore the Japanese lesson study approach as a method of transformative learning that contributes to teacher educators' technology professionalization. Data sources included three semi-structured group interviews as well as reflective reports from the research participants. An analysis of the data was based on an interpretive approach of organising, categorising and coding the data. Preliminary findings indicate that teacher educators consider lesson study to be an encouraging method to improve their teaching practice based on collaborative lesson planning, lesson observation and evaluation of student learning. Further, this paper also offers a number of implications for practitioners and suggestions for further study.

**Name: Prof. Dr. Aparecida de Fátima Silva, Federal University of Viçosa**

**Co-authors: José Gomes Thomaz, Rosiane Keila Santos Costa**

**Title: Development of Inquiry Didactics Sequences for Science Teaching in a Brazilian Pre-service Chemistry Teacher Course: promoting a Entrepreneurship Education (PDT-17)**

**Mode of presentation: Paper**

The training of science teachers is currently developed from models that promote effective reflections about teaching practices, with the execution of activities of didactic sequence planning, that contemplate exercises of awareness by the future teachers of the different contents to be developed in the classroom and the multiple strategies necessary for the promotion of meaningful learning by the students. This research discusses the construction of Inquiry Didactic Sequence "Food and Nutrition" by two pre-service teachers during the Teaching Chemistry II course, which is regularly offered on Chemistry Bachelor's Degree at Federal University of Viçosa, Brazil. When we discussed CTS approach to teaching and development of scientific literacy. The research question was: How pre-service teachers conceive, reflect and plan science teaching for scientific literacy? Their teaching models revealed inconsistent conceptions about the process of teaching and learning and also with the constructivist orientation models. Throughout the training course, the undergraduate students, assumed and developed an entrepreneurial attitude about its planning and analysed it with an existing instrument in which are described hierarchical levels of pedagogical elements. This research aims to contribute to the formation of a new professional teaching profile with a view to improving the quality of Science teaching. The Didactic Sequence destined to students of the 3rd, High School, on "Food and Nutrition". The resources used were documentaries, games, multimedia resources and experiments. We aim to motivate the student in order to encourage him to overcome the difficulties in relation to learning and to arouse his interest in the Sciences.

**Name: Ming Yan Tsui, The University of Hong Kong**

**Co-author: Ida Ah Chee Mok**

**Title: The impact on teacher's self-efficacy of TPACK in the Professional Development School Scheme (PDSS) (PDT-12)**

**Mode of presentation: Paper**

The purpose of this study was to examine how the self-efficacy of a group of in-services teachers' technological pedagogical content knowledge (TPACK) might be supported by a professional development scheme. The research was carried out with 12 in-services teachers from 6 different Hong Kong secondary schools in this school year in which all of them joined the Professional Development School Scheme (PDSS) (Stem Education- technology integration in teaching) organized by Education Bureau (EDB), The Government of Hong Kong Special Administrative Region. In stage 1, the in-charge of PDSS shared his teaching materials, opened his classroom for lesson observation and gave a technical support to his team members in the first semester. After the semester, a questionnaire was given to each team member to determine their self-efficacy in different domains (Technology Knowledge (TK), Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Content Knowledge (TCK), Pedagogical Content knowledge (PCK), Technological Pedagogical Knowledge (TPK) and Technological Pedagogical Content knowledge (TPCK)) and their self-efficacy of e-learning in the learning community. In stage 2, peer observations (with the teachers' consent) was promoted. After stage 2, a second questionnaire was given to each team members to examine the teachers' self-efficacy after the peer observation of subject integration with technology under TPACK framework. At last, the two sets of data would be analysed to investigate the experience of different components of the PDSS on the teachers' self-efficacy in technology integration in their teaching.

**Name: Mr. Wilbert Viana Barbosa, Centro Federal de Educação Tecnológica de Minas Gerais**  
**Co-author: Alexandre Ferry**  
**Title: Structure mapping system of analogies: a resource for the professional development of teachers (PDT-03)**  
**Mode of presentation: Paper**

The use of analogies in the classroom or in school textbooks is a very common teaching practice, usually carried out spontaneously and unsystematic. On several occasions, teachers establish comparisons that are not seen as analogies, which may compromise the understanding of the concept, theory or scientific model taken as the object of teaching. The field of studies on analogies in teaching contexts has revealed the potential of this didactic mediation resource for learning, but has also pointed out the risks arising from misuse. In some cases, the comparisons are simply established according to mere appearance. In others, established comparisons become structurally inconsistent or unsystematic, which reduces pedagogically the potentialities of analogies. On the perspective of analyzing analogies and their use in teaching, Ferry (2017) introduces a notations system backed by two theories: the Structure Mapping of Gentner (1983) and the Multiconstraint of Holyoak & Thagard (1989). This notation system was used as a basis for the survey of requirements with the intention of developing a software capable of automating the structure mapping of analogies and helping teachers in the planning of the approach and the construction of this type of comparison as a mediational mean in the teaching process in learning environments or in the production of teaching materials. The system managed to present the mapping according to what the theoretical framework of this work suggests, constituting itself as a useful and appropriate tool to aid in didactic planning, either in the classroom or in the preparation of didactic materials.

**Name: Drs. Felix van Vugt, University of Applied Sciences Utrecht**  
**Title: What's the Perfect Blend? Making Regional Interschool Lesson Study Possible With Blended Learning and Virtual Observation of Research Lessons (PDT-02)**  
**Mode of presentation: Poster**

While previous research shows that Lesson Study (LS) is effective (Lewis & Perry, 2017; Ming Cheung & Yee Wong, 2014), a pilot study we conducted showed it remains challenging to organize in Dutch schools due to the heavy workload of teachers, challenges in scheduling meetings, the undesirability of cancelled classes due to live observation of research lessons (Den Engel Karin & Van Vugt, 2015), and the absence of affordances in Dutch schools conducive to teacher learning (Admiraal et al., 2015). Furthermore 'smaller' subjects, such as Civics or German, often cannot muster enough (motivated) teachers within the school to organize a LS. This problem can be addressed by organizing a regional interschool LS. However, this aggravates the aforementioned issues. On a different note, but equally important, is the scarcity of expertise in the field of pedagogical content knowledge. Although research shows that quality of the input is an important factor in the impact LS has (Desimone, 2009), it is a daunting challenge to provide all LS-groups in the region with a facilitator that is knowledgeable on the specific subject the participants teach.

These issues raise the question how to develop a LS-design that enables a more flexible organization of LS, enabling both regional interschool LS and providing the means to deploy PCK expertise from a distance, without compromising the quality of teacher learning.

**Name: Jun. Prof. Dr. Katja Zaki, University of Education Freiburg**

**Title: What is a teacher's language ... and what is language for a teacher? The role and function of language practice in competence- and coherence-oriented models of foreign language teacher education (PDT-38)**

**Mode of presentation: Round Table**

Foreign Language Teacher Education Programmes in both, Germany and France, have been reformed in recent years to integrate more didactical and pedagogical elements - or, to speak with the Shulman's (1986) model, the value of the acquisition of Pedagogical Knowledge (PK) and Pedagogical Knowledge (PCK) has risen, whereas the traditional stress on the transmission of Content Knowledge (CK) has been questioned and newly defined in relation to other dimensions of professional competence. In this context, however, it is not only essential to ask which function each component of professional knowledge has in teacher education programmes, but also how these components can be transmitted in integrative and coherent learning arrangements - as well as, particularly, which role and function language practice has in this context (in the theoretic models, concepts, concrete teaching approaches and underlying design based research projects).

However, little research has so far been done on the question of how different spheres of competence development can be linked through more "coherent" designs - on the level of curricula, teaching and learning designs as well as through the promotion of reflexive, research-based learning (Hammerness 2006). Consequently, our paper aims (1) to situate "language competence" in accepted (and partly adapted) models of teachers competences and asks for its role and function in the education of in-service- and newly qualified teachers. On this basis we (2) give an overview of key dimension of a "coherent" foreign language teacher education and (3) discuss selected approaches and methods (course formats; the potential of e-tandems in this context).

# Theme

## Refugee Education



**Name: Prof. Abdisalan Yusuf Adan, Association of Teachers of English in Somalia**  
**Title: Refugee Education (REF-01)**  
**Mode of presentation: Paper**

The study has examined the education refugee among the refugees in the globe. The worldwide rise in numbers of refugees and asylum seekers suggests the need to examine the practices of those institutions charged with their resettlement in host countries. In this paper, we investigate the role of one important institution - schooling - and its contribution to the successful resettlement of refugee children. We begin with an examination of forced migration and its links with globalisation, and the barriers to inclusion confronting refugees. A discussion of the educational challenges confronting individual refugee youth and schools is followed by case studies of four schools and the approaches they had developed to meet the needs of young people from a refugee background. Using our findings and other research, we outline a model of good practice in refugee education. We conclude by discussing how educational institutions might play a more active role in facilitating transitions to citizenship for refugee youth through an inclusive approach.

**Name: Ms. Griet Deknopper, Erasmus Hogeschool Brussel - DEP EDU - Kenniscentrum**  
**Title: Expression for refugee children with trauma (REF-07)**  
**Mode of presentation: Workshop**

An expressionbook for children in traumatic circumstances will be presented. The expressionbook is introduced in Nepal after the earthquake and is running since then in 5 schools in Dhading district. It is translated into Arabic and will be introduced in Palestine soon (and in English in Kenya - Kakuma Camp). The program is developed for education in emergencies. The knowhow is based on earlier art therapeutic programs in Nepal, Palestine and Burma. The expressionbooks are excellent for use in a temporary class settings or TLC's (Temporary Learning Centres) - such as refugee camps, shelters, centres for street children, abused, abandoned and/or trafficked children. The workbooks contain 20 fixed tasks and focuses on free expression. It respects the rhythm and the personal coping strategy of the child. A Teacher Training makes use of an educator's manual. It gives short but effective information about the importance of art therapy for children at risk, the goals of the program, criteria and tips for a successful implementation and extra background information (why each task and theme are part of the book) and guidelines in relation to trauma for each task.

**Name: Mr. Bijay Dhungana, Hogeschool Utrecht, ICEFIL**  
**Co-authors: Nicole Reith, Frans Kriger, Stephanie Edwards**  
**Title: Pathway to Education and Employability (REF-05)**  
**Mode of presentation: Workshop**

HU/ICEFIL is conscious and committed to address the Institutional challenges we all face in delivering effective and sustainable education to a growing refugee population that are highly mobile, fragile and isolated within their host communities...the latest UNHCR statistic confirms some 65million people worldwide currently displaced.

Unfortunately, this number keeps rising hence it is important to explore education solutions that can be sustained with this growing population and where we have confirmed how effective use of 'innovative learning' has made a positive impact.

Our vision is to significantly increase the pool of available quality teachers for Secondary schools within the region and this includes providing them access to quality course materials online and other digital support. It is only in providing this dual provision that we will make any noticeable impact to the existing poverty of secondary education that exists within the region; both within the camps and also within the local supporting communities as well.

In partnership with Kenyatta University and MOI University in Kenya, We have jointly contributed to develop a certified program leading to an Accelerated Diploma in Teaching that is legally recognized in Kenya. We hope this workshop will enable all members to co-create through exploratory research and then implement through new business models to ensure (future) teachers are better trained and more empowered to deliver next generation teaching and learning.

**Name: Dr. Gilda Esposito, University of Firenze, Department of Education and Psychology**  
**Co-authors: Giovanna Del Gobbo, Glenda Galeotti**  
**Title: Arts and cultural heritages as resources for inclusive learning environments in adult refugee education (REF-08)**  
**Mode of presentation: Paper**

We present a qualitative research conducted in the framework of three European Erasmus Plus projects (META, ARTinED and recently started Lingua Plus) that mainstream art-based and cultural heritage-based didactic for creating inclusive learning environments in an every day more diverse Europe. On the basis of fifty good practices collected worldwide, META (Minority Education Trough Arts) project developed a teaching methodology and a key competence framework that have both been tested in pre-primary and primary schools in five European countries. While META worked on inclusion, ARTinED focused on curricular teaching and Lingua Plus mainstreams arts in second language learning for adult refugees. The three mentioned projects have all different targets, pre-primary, primary and secondary in the first two and adult education in the third one. The results of mainstreaming art and cultural heritage-based didactic in developing social and emotional intelligence, and related soft skills, are encouraging for further development. In accordance with international policies and research, the META competence framework identified ten competences that can be both translated into cross cutting learning objectives for students and a tool kit for teachers and educators in initial and continuous in service training. The scope of this paper is to demonstrate through the evidences collected in empirical research that arts contribute to creating inclusive learning environments for learners with migrant background, no matter their age or previous education and training.

**Name: Dr. Ori Katzin, Kibbutzim College Israel**

**Title: Instructing Teachers of Refugee Pupils - Transparency, Choice and Sharing (REF-04)**

**Mode of presentation: Campfire**

Children's lives in refugee camps are characterized by destabilization and fragmentation of their lives, by non-provision of basic and essential needs, inability to identify order in the world surrounding them and incapacity to understand and anticipate the events around them.

This lecture will present a case study of a course instructed by the author to teachers in a girls' school where most of the pupils live in the Shu'afat refugee camp in East Jerusalem.

The major obstacles in educating these pupils and improving scholastic achievements are not only the living conditions in the camp, but their overall feeling of powerlessness, passive behavior and their lack of motivation to learn. On the basis of self-determination theory developed by the humanistic stream of psychology and expanded by Deci and Ryan, and Asor, the author developed a teaching approach for implementation in the classroom, which is focused on addressing the fundamental need for autonomy. The principles of this approach are transparency, choice and sharing. Transparency for the pupils exists by revealing the teacher's judgment and decisions regarding the goals of the studies, the means of instruction, and ways of evaluating learning. Choice is achieved by pupil selection of the learning activity and sharing is pupil involvement in the learning assessment through execution of actual learning performance tasks.

Conclusions from the course indicate that it is imperative to bolster teacher training regarding revealing and expression of the reasoning for various teaching activities and to expand teachers' arsenal of learning performance tasks.

**Name: Dr. Karijn Nijhoff, The Hague University of Applied Sciences**

**Title: Labor Market Access and Education: How to assess refugees' qualifications (REF-02)**

**Mode of presentation: Campfire**

In this workshop we will look at routes to assess education levels, qualifications, and skills of refugees in order to improve the match with demands on the labor market. We will try to find alternative solutions to the current mismatch and high unemployment levels among (Syrian) refugees (in the Netherlands). Ideally, we can explore policy routes towards a more inclusive labor market.



**Name: Dr. Karijn Nijhoff, The Hague University of Applied Sciences**

**Co-author: Klaas Molenaar**

**Title: Training Migrant Entrepreneurs: Same Trick or Different Trade? (REF-03)**

**Mode of presentation: Paper**

In this article, we discuss approaches to migrant entrepreneurship. We first describe the goals of self-employment, we then map the different programs designed to support migrants to become an entrepreneur. We include descriptions of the characteristics that migrant entrepreneurs should have, according to these programs. We also look at barriers that migrant entrepreneurs face. As an illustration, we use the example of Rami, a man who recently fled the war in Syria. His story is used to highlight various aspects important in training programs for migrant entrepreneurs. For this paper, we have used an exploratory, literature based approach.

# Theme

## Teacher Education & Digital Technology



**Name: Dr. Liat Biberman-Shalev, Levinsky College of Education**

**Title: Personal blogs or communal blogs? Pre-service teachers' perceptions regarding the contribution of these two platforms to their professional development (TEDT-02)**

**Mode of presentation: Paper**

The contribution of technology platforms such as blogs in higher education is of ever-increasing interest. This study explores the integration of personal blogs vs. the communal blog in teacher education with the emphasis on exposing pre-service student teachers perceptions regarding these blogs' contribution to their professional development. The two-year study was based on two groups of elementary-track students. First-group participants (2014-2015) were asked to accompany their practical work with personal blogs (entries available only to the pedagogical instructor). Second-group participants (2015-2016) were asked to accompany their practical work with a communal blog (entries available to all group participants plus the pedagogical instructor). Qualitative analyses of interviews with pre-service teachers and their posts revealed: personal blog- a space for organizing learning; prompts memory; encourages self-exploration; raises the importance of reflective practice; improves writing and technology skills; communal blog- raises awareness of diverse perspectives, peer learning; encourages competition and sharing; improves writing but not technology skills. The main conclusion posits that integrating both blogs contributes to the training of pre-service teachers.

**Name: Dr. Theo van den Bogaart, Utrecht University of Applied Sciences**

**Co-author: Paul Drijvers, Jos Tolboom**

**Title: Co-design of blended modules for teacher education (TEDT-10)**

**Mode of presentation: Paper**

Blended learning is an important development in Dutch teacher education. Little is known, however, about its affordances for domain specific didactical courses such as didactics of mathematics or science. These types of courses provide two specific challenges to the educational designer. Firstly, they aim at the transfer between theoretical knowledge and workplace practice. Secondly, the number of students taking these courses and the number of teacher educators with the specific didactical expertise are both small and fragmented throughout The Netherlands. To investigate this topic, we carried out a design research project in which teacher educators from different institutions throughout The Netherlands engaged in a co-design process of developing and field-testing open online learning materials aimed at use in mathematics and science didactics courses. We focussed on three research questions. The first one concerns the characteristics of online learning materials. The second one concerns the process of collaboration. The third research question is on the use of the developed learning units by fourteen teacher educators from different institutions, and their students. Research outcomes include the description of a successful process model which centered around four intense working sessions ('boot camp days') in small design teams, as well as several design heuristics for online materials that stimulate usage by teacher educators not directly involved in the design process (open educational practice).

**Name: Dr. Theo van den Bogaart, Utrecht University of Applied Sciences**

**Co-author: Justian Knobbout**

**Title: Learning analytics aimed at the quality of content on discussion boards (TEDT-13)**

**Mode of presentation: Round Table**

As part of the round table meeting, we would like to discuss the merits of learning analytics in analysing online discussion boards (forums). As research case, we will present a course on math didactics which for several years has incorporated a successful forum, used by students on a weekly basis. Our focus is on the quality of individual forum contributions, and not on the number of contributions. At the moment, we are able to perform two kinds of automated analytics: (i) we can give a weight to the amount of interaction generated by a student's post (i.e., replies-to and replies-of); (ii) we can perform a tentative frequency count on the jargon used. This can lead to individual student reports. In the discussion, we would like to address three themes: the kind of analytics that can be automatically performed on forum contributions, the way these analytics can lead to formative feedback for students stimulating them to improve, and the research instrument that can be employed to give insights in the learning mechanisms activated by the analytics.

**Name: Dr. Benton Brown, Bath Spa University**

**Title: "Virtual Classrooms: Constructing Authentic, Real-Life Experiences through Technology" (TEDT-22)**

**Mode of presentation: Workshop**

This session will focus on the use of the innovative technology of a virtual classroom and describe how it is being used in initial teacher training to create a safe place for students to practice pedagogical skills and deal with difficult conversations. This pilot project at Bath Spa University is the first time in the UK that hundreds of initial teacher trainees across several programmes will use this technology. The virtual classroom is a classroom environment that simulates real pupils with a range of abilities and personalities responding in real-time to the live interaction and performance of the teacher with the class. In short, it is a classroom of computer generated students controlled live, in real-time by an actor. This session will include an interactive discussion about how this technology is currently being used and how it could be used to enhance learning and teaching including a chance to try out the technology.

**Name: Prof. Dr. Alexandre Ferry, CEFET-MG (Brasil) and Institute of Education - University of Minho**

**Co-author: Laurinda Leite**

**Title: Integration of digital technologies in science centres' modelling-based exhibit sets: contribution for innovative science education (TEDT-08)**

**Mode of presentation: Paper**

This paper aims to find out how much and how Portuguese "Ciência Viva" science centres integrate digital technologies into their exhibit sets based on modelling. We acknowledge the modelling process and the use of digital technologies as mediated actions that are consistent with Wertsch's theory of mediated action. Hence, models are mediational tools designed to represent real or invented entities of scientific interest as well as the way they interact and behave. One of the main science centres' goals is to make science understandable to non-science specialists. This goal may be enhanced by digital technologies, which may make the representational, explanatory, and interactive exhibit sets friendlier. Eighteen Portuguese science centres were visited and 187 exhibit sets based on modelling were photographed. The analysis of the photographs together with the field notes showed that 35 exhibit sets use digital technology for: (i) showing informative or explanatory texts on the models; (ii) projecting the models; (iii) doing real time data collection and processing from the exploration of the models; (iv) expanding the possibilities of representation of conventional models; (v) fostering the articulation of different modelling strategies within a given exhibit set. The results suggest that science centres take profit from digital technologies to enrich their modelling exhibit sets in different ways. Furthermore, they show that the integration of digital technologies enlarge the possibilities of representation and interaction of the exhibit sets, which increases the educational relevance of science centres for both schoolchildren and laymen's science education.

**Name: Prof. Andrea Garavaglia, Università degli Studi di Milano-Bicocca**

**Co-author: Livia Petti, ErandaNdreu**

**Title: Analysis of multiscreen classroom management (TEDT-11)**

**Mode of presentation: Paper**

The laboratory of teaching technology is part of the degree in Science of Primary Education, in which future teachers are trained to develop digital skills of primary school children. The continuous evolution of technology and teaching techniques has made necessary the creation of a digital multi-screen classroom based on a collaborative group setting. The innovative multi-screen digital classroom was used for the first time in the 2016-17 academic year.

The research group has outlined an analysis grid, in order to understand how the teachers manage this new setting. The grid focuses on different aspects such as proxemics, posture, communication, the level of coherence in the use of tools, strategies and teaching techniques used by the instructors during different phases of the lessons.

The research methodology consists of 120 hours of observation and video-recording of a sample of 20 lessons of the learning path. The use of the analysis grid made it possible to identify 237 teaching phases. The results showed that the main difficulty of the participants was the management of more than one screen during the lesson and the persistence of a frontal lecture setting. Nevertheless, some instructors used the new multi-screen setting in an effective way, highlighting its teaching potential.

**Name: Drs. Stan van Ginkel, Utrecht University of Applied Sciences, Hogeschool Utrecht**  
**Title: Learning to present in front of a virtual audience: an explorative study (TEDT-01)**  
**Mode of presentation: Paper**

Although scholars in presentation research emphasized the essence of teacher feedback, it remains unclear whether the acquisition of students' oral presentation competence can be encouraged by the adoption of innovative technology for providing feedback. An experimental study, conducted in a Dutch research university, explores the impact of a virtual reality-based task, in which undergraduate students present in front of a virtual audience and receive feedback generated by the computer, on students' cognition, behaviour and attitude towards presenting. As a goal to practice for their final presentation assessment, the potential effects of the virtual reality-based task are compared with a control condition of a face-to-face presentation task accompanied with expert feedback. Mixed methods of multiple-choice tests and performance assessments, including rubrics, were used for data collection. Results demonstrated significant improvements for all three components of presentation competence, however no differences between the conditions were found. Subsequently, self-evaluation tests revealed that students who conducted their presentation in virtual reality addressed the feedback as valuable regarding their detailed and analytical characteristics. Future studies are needed to investigate the impact of immediate feedback in virtual-reality based tasks on students' presentation competence for increasing the value of virtual reality in self-assessment presentation tasks and for potentially reducing teacher staff costs in higher education.

**Name: Drs. Linda Goebertus, Fortes Lyceum**  
**Title: Using gamification in everyday education (TEDT-14)**  
**Mode of presentation: Workshop**

Statistics say that most people by the age of 21 have spent the same amount of time gaming as they have spent at school. Games are addictive, because they use different elements to commit gamers to their games. These elements have been identified and the implementation in other fields like marketing or education is developing. This is called gamification: "the application of typical elements of game playing (rules of play, point scoring, competition with others) to other areas of activity, specifically to engage users in problem solving". School is often allowed to be boring, but we can definitely copy some ideas to encourage student motivation and engagement.

The objective of this workshop is to encourage positive behaviour, increase motivation and engagement by initially taking easy steps like adding competition, a time frame or a reward system. We will explore elements of gamification and their implementation in education. We will work together on a lesson plan with gamification while using gaming elements ourselves, which you can use directly.

**Name: Dr. Kees Hoogland, Utrecht University of Applied Science**

**Co-author: Paul Drijvers**

**Title: Multimedia representations in problem solving in mathematics education: An augmented reality example (TEDT-28)**

**Mode of presentation: Workshop**

In vocational education students flourish in mathematics when mathematics is connected to their workplace experiences. It makes mathematics more meaningful and relevant to them. This effect on student motivation and student results is already known for a long time and has led to various attempts to integrate mathematics in authentic vocational settings. However, these practices have not found a critical mass in implementation, mainly due to practical constraints. What is left in many practices is an endless collection of word problems in a poor attempt to connect mathematics to reality. Nowadays with multimedia and multimodal approaches reality can be brought into the classroom in many new and different ways, for instance through virtual and augmented reality. This opens a new perspective on workplace learning, connecting mathematics to the real world, and using mathematics to solve practical problems "as they are". Using augmented reality is one promising example of this development. In the workshop this approach will be presented and experienced by the participants. Furthermore, the consequences for classroom practice and the didactics of problem solving will be discussed.

**Name: Dr. Mary Kelly, International School of Amsterdam**

**Title: An Exploration of the Use of Screen-Based Technology Amongst 11 Year Olds during Break-times at the International School of Amsterdam (TEDT-09)**

**Mode of presentation: Paper**

The following study uses a mixed methods research approach to elicit students' views on the use of screen-based technology during break periods. An interest in this area emerged due to a noticeable reduction, in recent years, in the number of students spending time in outdoor play areas during morning and afternoon breaks. The context of the study is the first year of the IB Middle Years Program at the International School of Amsterdam, a private international school, which implements an inquiry-based approach to teaching and learning. The school is a 1:1 cross-platform laptop school and students have unregulated open access to technology during break-times. The study involved surveys, individual empathy interviews, small group interviews, and open whole-group conversations. The findings indicate that students engage in a wide variety of screen-based technology activities, they have a variety of perceptions on the use of technology during break-times, and they have a range of opinions on how the unregulated use of screen-based technology affects their well-being. The 11 year olds have raised a number of unanticipated questions surrounding the use of laptops during breaks, and they are now involved in a Design Thinking approach towards the generation of solutions to the issues that they have raised.

**Name: Dr. Jennifer Kerzil, UCO Catholic University of the West in Angers**

**Co-author: Anne Glick**

**Title: Using Technology to help teachers build Intercultural Competences in their classrooms (TEDT-23)**

**Mode of presentation: Workshop**

This workshop offers a hands-on experience using an online platform to teach intercultural competences. Designed by a non-profit organization, One Globe Kids uses technology to help children challenge prejudice and stereotypes by encouraging them to 'meet' and make friends with children from other countries and cultures.

This tool is designed as a practical, scalable implementation of social psychology findings on the power of imagined contact to address prejudice. It uses technology to encourage feelings of familiarity and emotional closeness between users and the "friends" featured in stories while working on the fundamentals of language (the new curriculum has been developed to integrate intercultural competence within the required subject of language for primary school students). Our aim is to show how teachers can safely and easily use technology in the classroom to help students feel emotionally connected with peers outside their familiar bubbles. The learning impact of the program is achieved by using a simple but strikingly visual interface and in-depth stories from real children around the globe. Unlike more demanding and complicated tools like video games, virtual reality and augmented reality, this intervention creates a real experience using photos and child narration to spark the student's imagination. After a short presentation of the theoretical underpinning (Intergroup Contact Hypothesis, Allport, 1954; Pettigrew & Tropp, 2011), attendees will be immersed in a pedagogical sequence using One Globe Kids online platform. A lead discussion focusing on the potential difficulties and assets of implementing this educational tool in class will close the workshop.

**Name: Mr. Jan Koot, Creblz international**

**Presenter: Stephanie Edwards, Hans van de Kant**

**Title: Students design digital material (TEDT-27)**

**Mode of presentation: Workshop**

Five years ago, the Utrecht university of Applied Sciences introduced "blended" learning as a pilot for several of its Master courses. This required a serious shift in perspective from both teachers and students. The success of this experiment, which has now been extended to all faculties of the university and now has 1000 courses presented as blended is largely due to its strong didactical concept and the user-friendliness of the online learning environment. The next step was to encourage and train out students to develop digital lesson material.

Student teachers now undergo training in the didactics and technology of creating digital material. Where they had traditionally followed courses in methodology of language teaching, they now follow courses in digital didactics to aid them in the transition from creating analogue to digital material. They have been given a learning environment, based on that used by their teachers, to create curricula for their placement schools. They also follow the same didactic principles as their teachers, namely the SLO spider's web. One of the most important features of learning environment is the ability to share material freely. A course created by one individual can be cloned, and reused by another. Furthermore, the fact the platform also allows students and teachers to co-create courses was a double-edged sword as students were also trained in collaborative skills. Farrel, T.(2016).



**Name: Prof. Linda la Velle, Bath Spa University**

**Co-authors: Kate Reynolds, Sam Taylor**

**Title: BERTiE: early evaluation of a digital innovation for evidence-based engagement in initial teacher education (TEDT-29)**

**Mode of presentation: Paper**

This paper reports on a digital innovation under development in response to the pressing need for useable access by pre- and in-service teachers to evidence-based research and policy. The need for career-long acquisition by teachers of a range of knowledge bases is very well established (Shulman, 1984). Currently, a significant block to this is the publication of educational research in obscure journals and policy in lengthy documents, both using obtuse and unnecessarily complex language. The affordances of the Internet now make possible knowledge mobilisation on an unprecedented scale (UNESCO [IITE], 2003), however the sheer amount of information available can in itself create problems. The British Educational research Tool Integrating Engagement (BERTiE) provides a 'walled garden' (Baggott la Velle, 2002) in the form of a curated web crawler that enables easy access to research and discussion through an online platform. It searches only predefined policy and research websites and educational blogs all of which have been moderated through a rigorous academic process. The first phase of evaluation of the use of BERTiE by education undergraduate students via pre- and post-usage surveys aims to determine whether there is any correlation between those students achieving high attainment and those using BERTiE regularly. A description and demonstration of BERTiE and the results of the survey, together with reflection on this type of digital development and intervention will be presented and problematized through participative discussion.

**Name: Dr. Orly Melamed, Kibbutzim college of Education, Technology & Arts**

**Co-author: Dr. Rivka Wadmany**

**Title: Assessment of innovation dimensions in a MOOC course "New Media in Education" focused on PBL plans (TEDT-24)**

**Mode of presentation: Paper**

Education for entrepreneurship is important in the age of accelerated technological change. MOOC courses, based on multiple choice automatic tests and on peer assessment, are expanding in higher education. MOOC courses in the new media, entrepreneurship and innovation fields are challenging its pedagogical developers to create a clear and measurable peer assessment process of innovative plans and projects. Research shows that innovation is an important criterion of evaluation; however, the concept has conflicting definitions.

The objectives of our action research are to study, about and from the analysis of peer assessments, how to improve the evaluation of PBL plans and its innovative aspects.

We analyzed 789 peer written assessments and grades of 89 PBL plans, which were submitted to 'New Media in Education' MOOC course in 2016. The research is based on quantitative and qualitative analysis of peers' feedbacks. Correlations were processed among peers final marks, innovation marks and other assessment categories of PBL plans marks. Regression analysis model indicates that compatibility of PBL plans to educational needs and its innovation are the strongest predictive factors of peers' final marks. The justifications of PBL plans assessments and of innovation assessment were analyzed through qualitative research. The research findings recommend how to improve peer assessment process and how to supply guidelines for the assessment of innovation and other categories of PBL plans, based on new media and digital pedagogy.

**Name: Ms Susmita Mondal, Visva-Bharati University**

**Title: Attitudes of pre-service teachers towards the use of digital technology in teaching-learning process in India (TEDT-17)**

**Mode of presentation: Paper**

Digital technology is one of the factors changing & shaping the world very rapidly. Digital technology enables self-paced learning through various tools such as E-learning, Web-based learning, radio, television, tape recorder, computer, laptops, audio-videotape, Video Games etc., as a result of this the teaching learning enterprise has become more productive and meaningful. In India Teacher education institutions are facing with the challenge of preparing a new generation of teachers to effectively use the new learning tools in their teaching learning practices. Teacher education institutions included Information and Communication Technology (ICT) in the new Teacher education curriculum programme, In India. The Study was designed to obtain pre-service teachers attitudes towards the use of digital technology in teaching-learning process in India. Considering the nature of present study, the investigator used a self-made questionnaire as a tool. For collection of data, Attitudes towards using digital technology was administered to the 100 pre-service teachers from private and government Teacher education institutions. Implementation of the mixed method research design resulted in emerging themes related to participants attitudes regarding the digital technology and beliefs about the use of digital technology in their future careers. This study reveals that the new designed ICT curriculum for Teacher Education programs can become the vehicle for the journey on the path of excellence in India.

**Name: Dr. Melanie Ni Dhuinn, Trinity College Dublin**

**Title: Maximising the blended benefits of an M-level Initial Teacher Education programme (TEDT-19)**

**Mode of presentation: Paper**

In 2014 the newly reconceptualised 120-credit Initial Teacher Education (ITE) concurrent and consecutive Master's level programmes were introduced in Ireland. The new Professional Master of Education (PME) course signalled a paradigm shift in the ITE landscape in Ireland and was characterised by new requirements and a new praxis. The requirements of additional ECTS, extended school placement, accentuated reflective practice and a specific research focus all underpinned by Teaching Council determined learning outcomes brought many challenges to the ITE space but it also presented significant opportunities. This poster proposal focuses on an ongoing research project in a Higher Education Institution (HEI) offering a consecutive ITE course. The HEI introduced a blended teaching, learning and assessment approach within the PME course on a phased-in basis, beginning with hosting aspects of a small number of modules on the HEI Virtual Learning Environment (VLE) in 2014 to hosting content and assessment of all PME modules on the VLE in the academic year 2017/2018. The blended learning approach has afforded student teachers the opportunity to engage with modules and module requirements both on and off campus through face-to-face, synchronous and asynchronous engagement that maximises student time and student learning in a constructive manner. Full implementation of a full blended learning approach however depends not only on student engagement but also on staff engagement. This research project endeavours to evaluate the user experiences of both student teachers and ITE staff and assess the pedagogical effectiveness of a blended learning approach in an M level ITE programme.

**Name: Dr. Çağrı Özköse-Biyik, Yasar University, Izmir**

**Co-author: Behice Ceyda Songül**

**Title: Developing Webinars for Teacher Professional Development: Do's and Don't's (TEDT-16)**

**Mode of presentation: Workshop**

Webinars have been widely preferred in the last decade as online professional development tools; however, they are effective as long as they are designed and delivered effectively! In this workshop, presenters will share knowledge and experience on effective webinar development as well as providing the participants with hands-on experience on webinar design and delivery. The first part of the workshop will include how to write effective measurable webinar objectives in line with ABC domains: affective, behavioral and cognitive (Clay, 2012). Participants will be provided with case scenarios in which there is information about the audience and a webinar topic. In groups, the participants will be asked to develop learning objectives in accordance with the ABC domains. The second part will be geared towards how to harness the potential of interactivity tools to boost interaction and collaboration among webinar participants, which is indeed the key to successful webinars. What should be paid attention to when choosing the best webinar software for your purposes, what interactivity tools are available in webinar software products such as Adobe Connect, GoToWebinar, and WizIQ, and how the interactivity tools can be used effectively during webinar delivery are the three main issues the workshop aims to emphasize. The participants will also be asked to incorporate the interactivity tools that will help them design interactive and collaborative learning activities. At the end of the workshop, the participants will be given a Kahoot quiz about the do's and don't's of effective webinar design and delivery.

**Name: Ms. Melpomeni Papadopoulou, Ligue de l'enseignement**

**Title: D-Clics numériques: sharing best practices in digital literacy (TEDT-04)**

**Mode of presentation: Workshop**

In an inherent digital society educational questions arise with renewed vigor. The emergence of digital tools has largely reshaped our ways of learning, doing and acting. There is an urgent need to enable children and young people to better control their environment, in particular by understanding and mastering the algorithmic logics contained in the tools they use every day. Rather than inventing to new pedagogical content, it is necessary to put children and young people in a position to make themselves producers of content and creative actors of the digital uses.

D-Clics numériques, is an educative project that seeks to accompany the emergence of the new generation in order to become active and responsible citizens of their digital uses. More broadly, D-Clics numériques accompanies teachers, schools... to fight digital fractures (equipment and usages). The project is organized in 2 principles axes:

- The training of educational actors to enable the implementation of new educational practices in school and out-of-school time with students from 8 to 14 years old
- The mobilization of young volunteers to intervene with different publics such as seniors and children in order to help them with their use of technology

Our commitments are to mobilize more than 600 volunteers in civic service, 3.000 volunteers and to train 6.000 educators by 2018. The D-Clics project aims to transform the educational areas into places of creativity where children become the critical citizens of the digital society and of their digital uses.

**Name: Prof. Davide Parmigiani, University of Genoa**

**Co-author: Laura Fedeli, Lorella Giannandrea and Andrea Garavaglia**

**Title: Digital learning environments to support the design process from primary to higher education contexts (TEDT-03)**

**Mode of presentation: Symposium**

The key concepts of this symposium are included into a wide idea of instructional designing processes. Teachers must arrange different and various activities during the school year. Which are the beliefs, the ideas, the strategies and the techniques used by the teachers when they create and develop a learning environment? Which is the role of technology in supporting the designing processes? The symposium is composed of three papers which will face two main educational aspects, although in different ways. The former is represented by the ways through which teachers, from primary to higher education level, use to design an innovative and interactive learning environment. The latter is focused on the role of technology, in particular mobile technology, to support teachers in building many kinds of instructional environments. A third point of view is represented by the intersection and the relationship between designing strategies and mobile technologies. The referent will highlight the strengths and the weaknesses of the different papers, underlining also the future development perspectives.

**Name: Prof. Maria Ranieri, Department of Education and Psychology, University of Florence**

**Co-author: Isabella Bruni, Francesco Fabbro**

**Title: e-Media Education Lab. Digital Resources for Teachers' Training (TEDT-26)**

**Mode of presentation: Workshop**

The workshop focuses on the training resources created within the framework of the e-Media Education Lab project (e-MEL) (<http://e-mediaeducationlab.eu/en>), an initiative funded by the European Union under the Erasmus Plus program (2014-17) and aimed at the development of models and contents for the training of media and digital skills of future and in-service teachers. The main idea underpinning the project was to attempt to bridge the gap between the emerging need for teachers' preparation on digital and media literacy and the messy reality of training in this field by designing, delivering and experimenting training scenarios for teachers' professional development to be published online in English as open educational resources (OER). The project relied on the large and relevant experience of the consortium in the field of media literacy education including the following organizations: Brussels School of Journalism & Communication (IHECS), Belgium; Media Animation (MA), Belgium; University of Tampere (UTA), Finland; University of Florence (UNIFI), Italy; University of Minho (UNIMINHO); Centre pour l'éducation aux médias et l'information (CLEMI), France; Institute of Education (IOE), England. The workshop aims at showing the platform e-Media Education Lab and its digital resources; involving participants in the exploration of training scenarios (TS) and the analysis of their strengths and criticalities; and at engaging them in reflecting on possible adaptations of those resources for their re-use and transfer to other professional contexts.

**Name: Msc Lieke Rietrae, Work21**

**Title: Adoption of new technology in schools: What approach do you choose? (TEDT-32)**

**Mode of presentation: Workshop**

The digital world is changing the work of ordinary teachers. Big promises have been made about what ICT can bring to schools (Visser, 2017). Not without result. Although there is a strong debate going on about the effectiveness, good use of ICT indeed has the potential to improve academic results (Faber & Visscher, 2016; Molenaar, Van Campen & Van Gorp, 2016). But organizations struggle to adopt new technology (Fujitsu, 2017). Seventy percent of the organizations report 'a clear lack of digital skills' and '33% have cancelled a digital transformation project last two years' (Fujitsu, 2017). With high costs consequently.

This brings us to the question how to make sure technology will be adopted in schools. In this workshop evidence and practice based steps will be provided so participants are more prepared for this challenge. Combining a bottom-up and top-down approach, ten steps will give clarity on this complex subject. In the workshop the participants will get a short introduction on these ten steps. After the introduction, they are being invited to apply these steps on a realistic and complex case. The goal is to give participants some tactics and tools for successful adoption of technology.

**Name: MA Matthijs Smakman, Hogeschool Utrecht, Institute for ICT**

**Title: Moral concerns regarding tutor robots (TEDT-21)**

**Mode of presentation: Poster presentation**

In a few years' time, primary classrooms will be larger and consist of a more diverse population, differing in educational ability levels, special needs, and cultural backgrounds. New technology provides important tools for modern education and can provide unique learning experiences to students and improving their learning. One of the most promising new technologies is the robot tutor, which is especially useful as support for educating individuals or small groups. Ethical challenges arise now robots are entering into the social domain, such as education. Likewise, others state that risks of applying robot tutors are still uncertain and early studies on ethical issues on this topic stress the need for ethical consideration and guidelines. Hence, research into the moral and ethical aspects of implementing robot tutors in education is urgently needed.

The goal of this research is to create an encompassing moral theory for applying robot tutors. This moral theory on robot tutors needs empirical anchors in the field. Ultimately, this theory forms the basis for a code of conduct for applying robot tutors in education. A code of conduct is specifically useful when risks are uncertain and consists of a set of rules outlining the moral conceptions for applying robot tutors. The poster will present the provisional results of an extensive systematic literature review identifying the moral conceptions and the existing moral concerns regarding robot tutors.

**Name: Dr. Esther van der Stappen, Utrecht University of Applied Sciences, Hogeschool Utrecht**  
**Co-author: Ilja Zitter**  
**Title: Design & Implementation of Technology-Enhanced Workplace Learning (TEDT-05)**  
**Mode of presentation: Poster Presentation**

A lot of educational technology has been designed, developed and tested that supports classroom-based teaching. Technology that supports workplace learning is much less available and knowledge about the design of such technology is scarce. We co-designed, co-developed and tested a web-based application that supports the learning process of teacher education students in their work placements. Students are facilitated in recording their learning moments in a user-friendly way, after which they can (re)view and analyse their set of learning moments and share these insights with their teacher coach. The functionalities are developed based on our design propositions for Technology-Enhanced Workplace Learning, which are constructed in the form of CIMO-logic. In this poster presentation, we will outline the design and evaluation results of this web-based application. With the participants of ATEE, we will discuss future possibilities of this application, such as learning analytics based on this application. Target user groups for workplace learning analytics are primarily students, but also teachers and educational program managers could benefit from these analytics.

**Name: Prof. Jo Tondeur, Vrije Universiteit Brussel**  
**Co-authors: B. Pynoo, A. Thys, J. Janssens**  
**Title: Blended Learning and Teacher education: From instrument to governance (TEDT-12)**  
**Mode of presentation: Paper**

Blended learning can be defined as learning that happens in an instructional context which is characterized by a deliberate combination of online and classroom-based interventions to instigate and support learning (Boelens, et al., 2015). Therefore, a shift is needed to re-think and re-structure pre-service training from a policy point of view. The purpose of this study is to provide a Quicksan to measure and guide governance for blended learning in teacher training institutions. The items of this instrument were developed based on a literature review. A first version of the Quicksan was reviewed by different stakeholders (e.g., teacher trainers, ICT-coordinators and researchers). The assessment focused on identifying relevant items grouped in four different categories: 1) Vision, 2) Leadership, 3) Expertise, and 4) (online) Learning environment. The output was used for a case study exploring the policies in four teacher training institutions in Flanders. During the session, the development of the instrument will be presented, together with the main findings of the case study.

**Name: Ms Diana Tremayne, Leeds Beckett University**

**Title: Using Netlytic to gather and analyse social media data (TEDT-15)**

**Mode of presentation: Workshop**

With an increasing number of educators using social media for both formal and informal learning opportunities there is an interest in and need for further exploration of this area of professional development. This workshop will give an overview of Netlytic – an online tool which can be used to gather and analyse social media data using social network analysis techniques. Netlytic can help to identify patterns of participation and themes which emerge from online discussion, something which is of relevance to those conducting research on teachers' online learning communities or using social media as part of their teaching programmes. The workshop will equip participants with the knowledge to conduct an initial Twitter search to gather and consider data relevant to their context. It will also provide resources to support participants to develop this further themselves after the session. Netlytic is currently being used by the presenter to gather data from a Twitter-based chat which is aimed at further education practitioners in the UK. This will form part of the data for a current PhD project in combination with methods including interviews and thematic analysis.

**Name: Dr. Floriano Viseu, University of Minho**

**Co-authors: Ana S. Afonso & Laurinda Leite**

**Title: Prospective elementary school teachers' professional development through technology-based modelling (TEDT-18)**

**Mode of presentation: Paper**

Modelling is acknowledged as an important tool for both in Maths and Physics education. In these areas, the use of modelling aims at developing students' understanding of how models are used to develop and validate content knowledge, to facilitate students' learning of content knowledge, and to promote students' development of both modelling and the ability to think and to communicate. This study aims: to identify prospective elementary school teachers' strengths and weaknesses when modelling science phenomena; and to identify their ability to analyse critically the relevance of modelling tasks for their professional development. Prospective elementary teachers were asked to engage into three modelling tasks, supported by technological devices, including calculators, sensors, and excel, which were already familiar to the subjects. At the end of the modelling task, prospective teachers were asked to produce an assignment, reporting on the challenges of the modelling activities carried out and providing a critical analysis of the modelling process, focusing on its contribution to their professional development. Data analysis suggests that all the groups succeeded on modelling the three phenomena. For them, the most demanding part was to uncover the best model of each phenomenon. The use of an empirical model to calculate theoretical values was particularly challenging to the prospective teachers. The modelling process and the results achieved suggest that they lack content knowledge in Math and in Physics, and that they seem not aware of the value of modelling for their professional development, namely as science and maths teachers.

**Name: Msa. Arie Vonk, Marnix Academie**  
**Title: 21st century competences (TEDT-07)**  
**Mode of presentation: Workshop**

How to implement digital innovation in heritage education, in the light of 21st century learning . During this workshop the participants will get acquainted with the DICHE-project and the different aspects concerned. We will explore the challenges and difficulties that arose during this research project about 21st century learning skills and digital innovation in heritage education. Participants will try out different apps and will be challenged to think about ways these apps can be incorporated in their educational practices. In accordance to the DICHE-project we will use the KSAVE model of 21st century learning skills (Binkley et al, 2010) during the workshop. Part of the research project encompassed students of a Dutch teacher training institute creating a challenging educational design for primary school children, aged 10 to 13 years.

In their educational design the students focussed on a specific 21st century learning skill, such as critical thinking, creativity and/or collaboration (Littleton & Mercer, 2013; Simonton, 2012). They adjusted assessment tools to measure their pupils starting point and progress concerning the specific skill. These tools were used as a benchmark to determine if the digital innovation was adequately used.

During the workshop we share some of the students' experiences, together examine the use of digital tools and discuss the use of assessment tools in measuring pupils' progress on 21st century learning skills.

**Name: Jun. Prof. Dr. Katja Zaki, University of Education Freiburg**  
**Co-authors: Dr. Christine Schmider**  
**Title: Digital immersion and authentic practices? Task-based tele-collaboration in foreign language teacher education (TEDT-33)**  
**Mode of presentation: Round table**

For more than 20 years, intercultural communicative competence (Byram 1997, CEFR 2001, Reimann 2015) has been one of the key goals of foreign language education - and different types of tandem arrangements have been used to foster it in individual, immersive, authentic learning situations (Bechtel 2001, Meißner 2004). Yet, the technological progress of past decades has spurred new developments and educational innovations in this field: Byram/Zarate's model of 1997, for example, which implies the integrative acquisition of ICC in different contexts (classroom, self-study, field work), could hardly foresee how a new Web 2.0 environment would literally "link" the classroom or self-study arrangements with innovative virtual learning spaces (Burwitzer-Melzer 2015).

In this context, we explore binational e-tandems as tools and catalysts for the reflective ICC development in bi/transnational communities of practice - with a special focus on their use and potential in teacher education. Accordingly, the Freiburg-Nice approach will be situated within different tandem models, by identifying essential aspects of its design and selected didactical principals (Meißner / Reinfried 2001). A special focus will (1) be put on multifaceted regards croisés, which enables students (as "learners") to integratively improve their communicative skills, their (pedagogical) content knowledge as well as their intercultural sensitivity and language awareness. As the participants of the tandem-arrangements in teacher education are not only "learners" but future "teachers" (Hoven 2007, 135 f.), a special emphasis is (2) further put on the reflection on the linguistic implications, pedagogical-didactical principles individual professionalisation processes, which can be fostered by the tandem setting.