Sino-Finnish Joint Learning Innovation Institute (JoLII) Conference – Equity and Quality of Learning in a Global Digital World

21 - 23 August 2019
Rovaniemi, Finland

PROGRAMME

Wednesday 21 August 2019

08:00 - 10:00 **Visit to the Teacher Training School**
(Optional, advance registration). Meet your guides Jenny Niu and Liping Sun **at 07:30** in front of Santa's Hotel Santa Claus. By foot to the Teacher Training School and back to city centre.

16:00 – 18:00 **JoLII Committee meeting** (by invitation only)
University of Lapland, Meeting room 113, Faculty of Education (main building, 2nd floor)

19:00 – 20:00 **Rovaniemi City Reception**
Alaruokasen talo (Valtakatu 8)

Thursday 22 August 2019

Venue: Mauri Hall, University of Lapland, Faculty of Art and Design (F wing)

07:30 – 09:00 Registration, Lobby, Faculty of Art and Design (F wing)

08:30 – 09:30 **Conference opening**

- Welcoming Address by **Dr. Heli Ruokamo,** University of Lapland, Professor, Faculty of Education, Director, Centre for Media Pedagogy
- Welcoming Address by **Jia Liu***,* Dean of the JoLII Institute, Beijing Normal University
- Welcoming Address by **Hannele Niemi***,* Finnish Chair of the JoLII, University of Helsinki

09:30 – 10:15 Keynote 1: **Hannele Niemi**: *Global learning crises – can digitalization and artificial intelligence provide new tools to solve the problem?*
UNESCO Chair on Educational Ecosystems for Equity and Quality of Learning 2018 - 2021, Ph.D., Professor of Education, University of Helsinki, Finland

10:15 – 10:45 Coffee/tea

10:45 – 11:30 Keynote 2: **Jia Liu:** *Big data and AI in Chinese Assessment on Progressive Education*
Ph.D., Professor of psychology and cognitive neuroscience, Beijing Normal University, China

11:30 – 12:30 Lunch (Restaurants Petronella and Felli) and a group photo

12:30 – 13:15 Keynote 3: **Xiangen Hu:** *Case Studies relevant to Equity and Quality of Learning in a Global Digital World*
Ph.D. , Professor and Dean, School of Psychology at Central China Normal University (CCNU), China

Session 1: Teaching and learning in digital world

Chairs: Heli Ruokamo and Marjaana Kangas

13:15 – 13:30 Hannele Niemi: *Digital Storytelling Promoting Students' Self-efficacy in Math Learning in China*

13:30 – 13:45 Päivi Timonen, Heli Ruokamo: *A systematic literature review: Real-time collaborative online coaching pedagogy*

13:45 – 14:00 Lenita Hietanen: *Challenges in sharing expertise by coteaching in two separate blended learning music environments*

14:00 – 14:15 Janne Väätäjä: *Teachers' Digital Pedagogical Competences – Systematic Literature Review*

14:15 – 14:30 Liping Sun, Heli Ruokamo, Marjaana Kangas, Pirkko Siklander*: Facilitate students' engagement in collaborative gameplay mathematics learning*

14:30 – 14:45 Peixin Nie: *Mobile use affects attention in behavioral tasks, but not in brain activity recordings*

14:45 – 15:00 Sirpa Purtilo-Nieminen, Helena Aho: *Design-based research approach for redesigning Academic Study Skills Online Course*

15:00 – 15:30 Coffee/tea

Session 2: Comparative research between Finland and China

Chair: Jenny Niu

15:30 – 15:45 Yuzhuo Cai: *Reconciling Chinese and Western Culture: Implications from Finnish Education Reform*

15:45 – 16:00 Jari Multisilta: *Teacher's Conceptions on Learning and Teaching Coding Skills in China and Finland*

16:00 – 16:15 Junfeng Zhang: *Does mindset about learning indicate teachers' pedagogical strategies? A case study from China and Finland*

19:00 – 21:00 **Conference dinner**
Restaurant Felli, University of Lapland (main building)
Greetings from ***Dr. Stefan Kirchner****, Associate Professor, Arctic Centre, University of Lapland*: **Arctic sustainable development**

Friday 23 August 2019

09:00 – 09:15 Opening of the day

09:15 – 10:00 Keynote 4: **Baocun Liu:** *Towards a More Equitable Quality Education: Educational Modernization in China 2035*
Professor and Director, Institute of International and Comparative Education at Beijing Normal University, China

10:00 – 10:45 Keynote 5: **Tuija Turunen:** *Teacher Education in the Arctic: Challenges and opportunities*
Ph.D., Dean, Professor of Education, University of Lapland, Finland

11:00 – 12:00 Lunch (Restaurants Petronella and Felli)

Session 3: Education for all

Chair: Outi Kyrö-Ämmälä

12:00 – 12:15 Olli-Pekka Malinen: *Inclusive and Special education in Finland and China – one aim, two systems*

12:15 – 12:30 Xingguo Zhou: *Shifting discourses of equality and equity of basic education: an analysis of national policy documents in China.*

12:30 – 12:45 Jenny Niu: *Solution Focused Approach with Skills Thinking and Skills Learning to Overcome Children's Emotional and Behavioral Problems*

12:45 – 13:00 Inkeri Ruokonen: *Learning music in web-based learning environment*

13:00 – 13:30 Coffee/tea

13:30 – 15:00 **Panel discussion**: **Indigenous Sámi Education Today**

Panel chair: **Pigga Keskitalo,** University of Lapland

Panelists:

- **Kaisa Kemi Gjerpe**, stipendiate, Sesam- UiT, Arctic University of Norway, Norway
- **Hanna Guttorm**, Ph.D., Researcher, University of Helsinki, Finland
- **Inker-Anni Linkola-Aikio**, Ph.D. Senior Officer, National Archives of Finland, Inari, Finland
- **Rauni Äärelä-Vihriälä**, Ph.D., teacher, Sodankylä, Finland

15:00 – 15:30 **Conference closing**

ABSTRACTS

Session 1: Teaching and learning in digital world

Digital Storytelling Promoting Students' Self-efficacy in Math Learning in China

Hannele Niemi [1], Shuanghong Jenny Niu[2]
[1]University of Helsinki , Helsinki , Finland. [2]University of Helsinki, Helsinki, Finland

The purpose of the study was to find how digital storytelling (DST) as a pedagogical method can promote students' self-efficacy (SE) and also meet the needs and requirements of 21st century competencies, such as student-centred knowledge creation and problem-solving. The DST method was implemented in math learning in four classes of Chinese 10- and 11-year-old students (N=121). Students assessed their SE in pre and post measurements. After the project, they also assessed their math confidence and what had they learned in Math knowledge creation and problem solving when producing their videos. Students also reported their daily learning experiences. Researchers observed students and interviewed teachers. The quantitative analysis methods were descriptive statistics, factor analysis and regression analysis. Qualitative data was analyzed by content analysis. The results of the study gave convincing evidence that learning with the DST method had a strong effect on students' SE. The changes were statistically very significant in all items, and among boys and girls. Experiences on problem solving when producing videos and math knowledge creation added students' self-confidence in math learning and predicted changes in SE. The findings of the study's indicate that DST can be a powerful method for supporting students' math learning, 21st century competencies, and particularly SE which is commonly regarded as one of the most powerful factors effecting positively on students' academic and non-academic learning. Supporting students' SE have high impact on their future learning.

A systematic literature review: Real-time collaborative online coaching pedagogy

Päivi Timonen[1,2], Heli Ruokamo[1]
[1]University of Lapland, Rovaniemi, Finland. [2]Humak University of Applied Sciences, Helsinki, Finland

Learning should be equally excellent and participative, whether done face-to-face or online in real-time. More and more learning will be provided online globally, and in Finland, a lot of online learning is self-paced and autonomous. Lately, synchronous collaborative online learning has expanded. There might be only a small difference in the principles of collaboration creation between face-to-face (F2F) and web-based, real-time, synchronous collaboration. Indeed, a different set of skills must be gained. Twenty-first century soft skills must also adapt to online synchronous and collaborative environments and include skills such as dialogue and communication skills, teamwork skills, and creative thinking skills. The learner should have a choice for real-time collaborative online learning and coaching pedagogy. Learning in small, online groups with a coach-teacher can be a way of realizing this kind of learning.

Generally, research has been carried out on collaborative knowledge construction and digital learning methods that support collaborative learning. There is an extensive amount of research carried out on the pedagogical designs of online learning processes and the online teacher's professional skills development. Research has also been conducted on changes in online learning and online teaching and the development of the University of Applied Sciences' (UAS) pedagogy. Coaching in the context of

sports or leadership has been studied extensively. However, not much research has been carried out on the pedagogy of collaborative real-time online coaching, and this gap needs to be filled. The results of this study will be helpful internationally for online learning developers and researchers, as well as for learners.

This study focuses on synchronous online learning, where a visual connection is possible during real-time online learning. Synchronous elements in real-time online learning include actions and options such as two-way video and voice feed, chat, a shared screen, the possibility to divide participants into small groups (breakout groups), and expressing oneself through digital images This kind of synchronous online learning environment could be in the form of a webinar.

This study is about what a real-time collaborative online coaching pedagogy and its theoretical framework is. By the systematic literature review (SLR) research method, the scientific data, peer-reviewed articles between the years 2014–2018, will be systematically searched, analyzed, and theorized. The keywords for the study are the following: a) digital coaching pedagogy – coaching in education, b) collaborative real-time online learning, c) synchronous learning (webinar), and d) learning in coaching groups. To ensure the quality of the SLR data search and study, the peer-reviewed articles are searched using these four different keywords.

The peer-reviewed articles will be selected, and a qualitative analysis will be conducted with the help of the Atlas.ti analyzing tool. The results will indicate the theoretical framework for the coaching pedagogical model for online real-time collaborative learning. In addition, the study is the first iteration of the real-time collaborative online coaching pedagogy model for the Humak University of Applied Sciences in Finland. The results of my research so far will be presented at the conference.

Challenges in sharing expertise by coteaching in two separate blended learning music environments

Lenita Hietanen[1], Aleksi Ojala[2], Vesa Tuisku[1], Anu Sepp[2], Inkeri Ruokonen[2], Heikki Ruismäki[3]
[1]University of Lapland, Rovaniemi, Finland. [2]University of Helsinki, Helsinki, Finland. [3]University Helsinki, Helsinki, Finland

This study focuses on e-learning possibilities and challenges in coteaching when enriching the quality of primary student teachers' music learning environments through different blended learning solutions and technology. The utilization of technology and various blended learning environment organizations are supposed to support diverse learners and enrich their learning for example by enabling sharing expertise through coteaching between the separate universities. In present study, each participant in the teaching-learning situations is seen as a learner and diversity is interpreted in the widest possible way, which means that each one of us is diverse. On the other side, it is understood, that each participant may act as an expert in some teaching-learning situations despite he/she organizationally is in a student or teacher position. In the studied two blended learning music environments, one of the blends is peer learning, which in this study refers to interpreting widely the concept coteaching. In general, the studied music learning environment organizations have been designed on the idea of the teachers' continuing professional development. The 'teacherhood' begins at last when an applicant passes the aptitude test of the teacher education programme and achieves a student teacher position at the university.

The study focuses on two interventions in primary student teachers' piano studies and uses two data sampling periods in two universities in Finland. The first intervention emphasizing a coteaching only between the two lecturers was carried out during the academic year of 2017-2018. The participants were two music lecturers and about 15 student teachers' group in the both universities studying piano in the Advaced music studies. Another intervention was carried out during the academic year of 2018-2019. In the second intervention, there were two lecturers (one participated also in the first intervention) coteaching, but based on the findings in the first intervention, also the student teachers were working together. There were pairs, where the participants came from the two universities – and from different teaching-learning situations, curricula, and blended learning environments teaching their peers in another university. They recorded their playing and shared the videos with their peers. Then they analyzed the peer's used principles in playing and recommended some ideas to develop the playing forward.

The challenges in sharing the expertise by utilizing blended learning possibilities and coteaching were recognized for example in the huge heterogeneity among the student teachers concerning their skills and knowledge when both playing the piano and analyzing the videos (in multiliteracy). This challenge comes true mainly due to the special concepts and symbols used only in music. Working together is a challenge when there is a long distance between the physical classrooms. This was faced for example when sharing the videos. This study challenges the interpretations of its main concepts: diversity, blended learning, coteaching. The findings arouse a question about to what extent the learning environment organizations finally increased the equity among the learners.

Teachers' Digital Pedagogical Competences – Systematic Literature Review

Janne Väätäjä
University of Lapland, Rovaniemi, Finland

The current generation of youth are being educated in a world filled with different digital technologies that are shaping our everyday life. Digital technologies have created possibilities for example to seek and share information more easily. Education systems all around the world are adapting to changes that digital technologies are causing in the society and making preparations to meet the new learning expectations of the 21st century pupils. The pedagogical use of digital technologies in Finnish schools is not in adequate level and at the same time the new national core curriculum focuses more on ICT skills, well-being and daily life management in all subjects. (Jordman, Kiili, Lonka, Schneiz & Vauras 2015, 78–79; Finnish National Agency for Education 2014; Opeka 2018.) Nowadays learning expectations for pupils and new digital technologies has caused that teachers need to constantly rethink their pedagogical practices (Sailin & Mahmor 2018, 146–147).

Croxal (2012) defines digital pedagogy as the use of electronic elements to enhance or to change to experience of education. Prestridge (2012, 449) argues in her research that digital pedagogies cannot be considered only as only using digital technologies in teaching in teacher directed approaches. Digital pedagogies could be considered as practices where ICT is used to enable learners' collaboration; active use and creation of information (Prestridge 2012, 457). My aim in this research is to represent a broader understanding of what else digital pedagogy is than the plain use of digital technologies in teaching. After understanding what digital pedagogy is am I able to examine primary school teachers' digital pedagogical competences.

In this research I focus on digital pedagogy and primary school teachers' digital pedagogical competences. I have outlined the following research questions:

1. How the concept of digital pedagogy is defined?
2. What are primary school teachers' digital pedagogical competences?

I will map the scope and type of the recent research and models on digital pedagogical competences with a systematic literature review. I chose systematic literature review as a research method because I noticed in the beginning of the research how differently digital pedagogy as a concept is studied among the researchers of the field. The existing literature has begun to address teachers' digital pedagogy as a concept but seems to lack so far detailed studies and surveys for broader understanding.

Presentation in the JoLII 2019 Conference will include preliminary results of the systematic literature review and general discussion about the topic.

Facilitate students' engagement in collaborative gameplay mathematics learning

Liping Sun[1], Heli Ruokamo[1], Marjaana Kangas[1], Pirkko Siklander[2]
[1]University of Lapland, Rovaniemi, Finland. [2]University of Oulu, Oulu, Finland

The potential of digital games to be an effective educational resource is widely recognized (Chang & Hwang, 2017; Peterson, 2016; Reinders & Wattana, 2014). In mathematics education, digital games are considered as fundamental learning tools that can help students acquire and practice arithmetic skills and facilitate their engagement in the classroom (Drijvers, Doorman, Kirschner, Hoogveld, & Boon, 2014). However, limited research has been conducted on how to enhance students' engagement in a collaborative gameplay mathematics learning environment. Thus, the study objective will be to explore how to enhance students' engagement in a collaborative gameplay learning environment. The main question is how collaborative gameplay manifests students' engagement in mathematics learning, and two sub-questions are posed: 1) How do students' engagement in mathematics learning manifest in collaborative game-based learning? 2) How does digital gameplay influence in students' engagement in mathematics learning? The relevant theories include engagement and collaborative learning. 'Engagement' refers to sustained learning action and has been characterized as four dimensions: behavioral engagement, emotional engagement, cognitive engagement, and agentic engagement (Sinatra, Heddy, & Lombardi, 2015; Kangas, Siklander, Randolph, & Ruokamo, 2017). 'Collaborative learning' refers to the instructional approach that can engage students in learning tasks in group and the aim is to achieve a common learning goal. In a collaborative learning task, we expect students can take responsibility for partners' tasks as well as their own, because their success is highly correlated to their partners' success (Khoo, 2016; Reinders & Wattana, 2014). There were 45 second grade students and one mathematics teacher in China participated in the study, and a digital game application called Wuzzit Trouble was used. Students filled in a questionnaire about engagement before and after the experiment. Six students were selected for a photo-elicitation interview after every classroom video recording, on the basis of mathematics teacher's ratings of students' cooperation skills and social competence. Through data collection and data analysis, we will explore the influences of collaborative gameplay learning environment and help students to facilitate their engagement in mathematics learning. The implication of the study is to figure out appropriate technological tools and pedagogical strategies, so it is possible to support researchers and teachers to select and design effective methods and approaches, and integrate digital gameplay in teaching and learning process.

Mobile use affects attention in behavioral tasks, but not in brain activity recordings

Peixin Nie[1], Cuicui Wang[2], Vesa Putkinen[3], Ben Cowley[1], Mari Tervaniemi[1], Sha Tao[2]
[1]University of Helsinki, Helsinki, Finland. [2]Beijing Normal University, Beijing , China. [3]University of Turku, Turku, Finland

Use of mobile phones has become increasingly common in our daily life and even in educational settings. However, the impact of mobile phone use has been controversial from different research perspectives. On the one hand, new types of learning theories such as game-based learning (Prensky, 2003; Qian & Clark, 2016), has emerged along with the fast developing digital technology, emphasizing the motivational impact of mobile technology. On the other hand, digital technology has also been criticized as causing distracted attention and other problems (Nasar et al., 2008).

In our research, we employed a combination of behavioral tests and the psychophysiological measurement, namely electroencephalography (EEG), to investigate whether mobile phone use is associated with children's cognitive abilities. The dataset being analyzed is from an intervention study implemented a primary school in Beijing, China. The sample size of participants n = 101, age = 8.58±.88 years.

For EEG test, we used an audiovisual ERP paradigm (Putkinen et al., 2015), where an enlarged P3a response was expected to demonstrate a link with distractions of the attention control process. For behavioral test, we measured the children's cognitive abilities, including memory, attention, visual spatial ability and reasoning, as well as school performance in math and reading. Regarding mobile phone usage, the questions included how often the children use mobile phones, from which year they started to use mobile phones, how the use of mobile phones is restricted in daily life, and other media usage, e.g. frequency of watching TV.

First, consistent with previous studies, the amplitude of P3a was negatively correlated with reading scores and attention scores in cognition test. This suggests that at group level, larger P3a is an index for problems in attention control and school performance. Second, the higher level of father's education was, the earlier the children started using mobile phone, but there was less frequent use of mobile phone for entertainment. Third, interestingly, the extent of mobile phone use restriction from parents was positively related to the memory and attention scores in cognition test, indicating that children with more strict restrictions have higher scores in memory and attention tests.

However, when comparing ERPs and mobile phone usage, no correlations were found between amplitude of P3a and any measures of mobile phone use.

The results demonstrated that attention and memory scores were positively associated with mobile use restrictions. Yet, there were no direct correlations, between the psychophysiological correlates of attention and mobile phone or other media usage.

Design-based research approach for redesigning Academic Study Skills Online Course

Sirpa Purtilo-Nieminen, Helena Aho
University of Lapland, Rovaniemi, Finland

Academic study skills, learning to learn and the self-regulated learning are the abilities that indicate academic achievement for the university student (e.g. Pintrich & Zusho, 2007; Bail, Zhang & Tachiyama 2014). Therefore, also University of Lapland among other Finnish universities have organized study skills courses for undergraduate students and the first online course started over two decades ago. The theme of our presentation is how we are using the design-based research approach to reform, redesign, develop and implement a study skills online course in order to feature more modern and multimodal content.

Our work started as part of the LOVO - project (2016-2018) funded by the European Social Fund. Our priority was to design an English academic study skills course based on the Finnish online course. Alongside this, we were redesigning the latter.

The online course, which we are developing and reforming, is an academic study skills course, which orientates new university degree student or an adult student in Open University to the university studies. Our goal is to create a more interactive and engaging online learning experience for students who are at the beginning of their university studies.

The Academic Study Skills course, originally planned at the University of Oulu, has long history in the Open University of the University of Lapland. Over the years, the course had been slightly modified based on student feedback, but the basic structure and the materials had been the same. Therefore, in order to be up to date, the course needed revision. For example, today we have better understanding about the interrelations between psychosocial wellbeing and learning (e.g. Tang, Wang, Guo & Salmela-Aro 2019).

In addition, new student groups entering university and the internationalization of the university are challenging the orientation and the study guidance system. For instance, the high school students are taking university courses via Open University. Their number is increasing also because of the new Act on General Upper Secondary Education (714/2018) which requires upper secondary schools to cooperate with higher education institutions. There is demand for courses that introduce high school students to university studies and academic learning in general.

Furthermore, an English course, orientating to the Finnish university studies, is useful for the international and immigrant students of the University. At the very beginning, their Finnish language skills are not sufficient for studying, so short-term English-speaking studies may help them to get started.

Our development work started with the review of the pedagogical approach and the format of the course materials along with the methods of scaffolding as well as course facilitation. We also evaluated the course pedagogical infrastructure in accordance with the principles of constructive alignment (Biggs, 1999; 2014; Lindblom, Ylänne & Nevgi 2002). In the first phase of our ongoing development project, we produced a pilot course for the English Academic Study Skills. Based on the feedback we are modifying the course further and heading to the second cycle.

Session 2: Comparative research between Finland and China

Reconciling Chinese and Western Culture: Implications from Finnish Education Reform

Yuzhuo Cai
Tampere University, Tampere, Finland

No matter for policy-makers and education researchers, a consensus on China's education reform is that the success and future of Chinese education depends on its ability to intelligently handle the relationship between Chinese cultural traditions and western value systems. Such issue is becoming even more important because of increasingly intensified globalisation. However, so far, there has been a lack of effective approaches to balance the two value systems in both in educational research and policy practice. The question about how to reconcile the culture between China and the West is not only a challenge in contemporary education reforms. It has been an unresolved puzzle since the concept of "zhing ti xi yong" (Chinese essence and western use) was proposed by FENG Guifen and ZHANG Zhidong during the Westernization Movement in the late Qing Dynasty. Although I am motivated to seek solutions to problems of Chinese education reform and research, I analyse the successful experience of Finnish education reform to provide reference for China's educational development.

Since the OECD began PISA in 2001, Finland has consistently ranked among the best, which has gradually attracted worldwide attention. Thousands of delegations from all over the world came to Finland to explore the secrets of its success in education. Finland has also become a role model of China's education reform. My argument is that the real secret of Finnish education success is that Finns know how to balance the relationship between external reform advice and Finland' own educational traditions, thus resulting in optimal integration of "ti" (essence) and "yong" (use). As a country geographically connecting the East and the West, the Finnish culture includes both the elements of the East and the West. Finnish education reform reflects its ability to reconcile tradition and modernity, leading to good balance between efficiency and equity.

My paper will explain the successful experience of Finnish education from a cultural perspective. It focuses on the successful experience of Finland in reconciling different values in education reform, and discusses implications for China's education reform.

Teacher's Conceptions on Learning and Teaching Coding Skills in China and Finland

Jari Multisilta[1], Pauliina Tuomi[2]
[1]Satakunta University of Applied Sciences, Pori, Finland. [2]Tampere University, Pori, Finland

Computational thinking and coding skills are required to understand how our society and services work and they will be increasingly required in future job descriptions. Both China and Finland have computational thinking and coding skills in their curricula, and the teachers are in a key role in implementing the curricula. The purpose of the current study is to compare teachers' attitudes towards the importance of 21st Century skills, especially computational thinking and coding skills in Finnish and Chinese early childhood, primary, and secondary schools.

The key variables in this study were measured utilizing an online questionnaire. The questionnaire was developed for the purposes of this study, but parts of it are based on existing instruments TPACK-W and TIA. The instrument built for this study consisted of background information (5 items), the use of ICT as a part of teaching (9 items), attitudes (8 items), and the impact and adaptation of technological change (14 items). In Finland, the survey was implemented as a Google Docs survey and in China via SoJump online tool. The In total, 559 respondents answered the survey (March-April 2017), 406 from China and 153 from Finland.

The results indicate that Chinese teachers' perceptions towards the usefulness of ICT in the classroom and school ICT support are more positive compared to Finnish teachers' perceptions. In addition, there was not a significant difference found in the programming skills of the teachers. However, the level of programming skills was quite poor.

The Chinese teachers evaluate their ICT skills to be better compared to the Finnish teachers. However, Finnish teachers think that coding skills are needed for those who are not aiming to become professional programmers, while Chinese teachers are undecided.

The findings indicate Finnish teachers think that coding skills should also be taught for those who are not seeking to become professional programmers. In addition, Chinese teachers' attitudes towards the importance of teaching the future skills in basic education are more positive compared to the attitudes of Finnish teachers.

This study gives an insight on how Finnish and Chinese teachers are perceiving and reacting to the 21st century skills, since they are now determined in the official curricula in both of the countries. Through these results, it can then be speculated whether the education and training of the future and present teacher is at an adequate level.

Does mindset about learning indicate teachers' pedagogical strategies? A case study from China and Finland

Junfeng Zhang[1], Elina Kuusisto[2], Kirsi Tirri[1]
[1]University of Helsinki, Helsinki, Finland. [2]University of Humanistic Studies, Utrecth, Netherlands

Inspired by previous research indicating teachers implicit beliefs of intelligence, might generate a number of different teaching strategies, this article compares how Chinese and Finnish teachers' mindset and pedagogical strategies within two different contexts of cultural values and teacher education. The study was conducted in two Chinese (N=50) and one Finnish (N=77) compulsory schools utilizing Dweck's mindset inventory, Gunderson's pattern of adaptive learning scale and teachers' praise. Research questions focuses on: (1) What kind of mindsets about intelligence and giftedness do Chinese and Finnish teachers hold; (2) What kind of pedagogical strategies do Chinese and Finnish teachers prefer (Performance goal orientation PGO, mastery goal orientation MGO, Praise); (3) How do Chinese and Finnish teachers' mindsets relate to their pedagogical strategies? The preliminary results illustrated that: (1) Chinese and Finnish teachers identified both intelligence and giftedness as malleable, in other words, they have a growth mindset. Further, in both countries teachers evaluated intelligence more changeable than giftedness; (2) Chinese teachers preferred to adopt teaching strategies related to both performance and mastery goal orientation, and they also seemed to utilize multiple and even contradictory feedback strategies as their answers indicated usage of a process, person, luck and neutral praising. In other words, Chinese teachers prefer to have mixed pedagogical strategies. Finnish teachers opted for strategies supporting students' mastery goal orientation more likely than performance goal orientation. Further, they were prone to put emphasis on process and neutral messages, instead of

person and luck, in praising students. Finnish teachers seemed to prefer pedagogical strategies in line with Dweck's theory and growth mindset pedagogy; (3) Teachers seemed to adopt different or opposite pedagogical strategies even though in both countries they supported the growth mindset. However, in China, the mindset about intelligence and giftedness did not correlate with pedagogical strategies. In Finland, we were able to find only one correlation: teachers' mindset about intelligence correlated negatively with the preference of performance goal orientation.

Session 3: Education for all

Inclusive and Special education in Finland and China – one aim, two systems

Olli-Pekka Malinen
EduCluster Finland (University of Jyväskylä group), Jyväskylä, Finland

One crucial aspect of equity and quality in education is how students who struggle with learning are supported within the educational system. Around the globe, educational systems have set ambitious goal to develop a well-rounded inclusive education system. In this respect Finland and China are no exceptions. The shared aim is to build an educational system where all learners, including students with disabilities, have access to good quality education that responds to their individual support needs. However, Finland and China differ greatly in their educational policies and practices related to inclusive and special education.

In Finland the origins of inclusive education can be traced back to the 1970s comprehensive school that aimed to build a one school system for all. Currently, all Finnish comprehensive schools should follow a three-tier system of support. The tree tiers include general support for all students, intensified support for some students, and special support for those few students who need most individual accommodations. In Finland, the share of students who receive some form of support is large compared to almost any other educational system. According to Statistics Finland (2018) during a given school year at least 29 percent of comprehensive school students receive some support for learning and schooling.

In China, support for learning and schooling is currently available for much smaller proportion of students, and special education is mostly targeted for students with severe disabilities who often study in separate special education schools. According to the statistics of the Ministry of Education of the People's Republic of China (2018) less than 0.5 percent of Chinese compulsory education students are registered as having special educational needs. About half of these students are studying in special education schools and the remaining half is in regular schools either learning in regular classroom or attached special education classes. In China the lack of well-trained special education teachers poses one significant challenge for providing extensive learning support in regular school. It appears, that at least in some of the economically most developed regions this challenge is also being acknowledged by local educational administrators.

In the proposed oral presentation, I will share and discuss insights that are based on my own international comparative research of inclusive education in Finland and China (e.g. Malinen et al. 2013), educational statistics, as well as personal observations on Finnish and Chinese education.

References

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Shifting discourses of equality and equity of basic education: an analysis of national policy documents in China.

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As the world's second-largest economy, China faces great challenges in educational equality and equity. This work examines the evolution of discourses surrounding educational equality by focusing on how Chinese central governments from the 1980s to the 2010s have formulated this issue. Through key national policy documents and drawing upon Espinoza's equality–equity model, we analyse the sociopolitical context of changes in China's educational discourse and come to the conclusions that in the 1980s, shifting the government's agenda to economic reforms, national poverty subsumed the issue of educational equality. In the 1990s, according to the inherited political rationale, the government treated educational inequality as a 'necessary process' of Chinese socialist market economy. Since the 2000s, equality and equity has become an 'urgent issue' as the government's agenda has shifted focus to stabilizing the nation's economy and society. We propose labelling these three stages of equality–equity discursive departure in the 1980s, continuity and rupture in the 1990s, and prioritization since the 2000s.

Solution Focused Approach with Skills Thinking and Skills Learning to Overcome Children's Emotional and Behavioral Problems

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The purpose of this study is how to help children to overcome their emotional or behavioral problems by using Kids' Skill method with learning and thinking skills approaches in a creative way and joyful way. Children in the world may experience all kinds of difficulties and problems during their growth. People have spent lots of time focusing on finding what have caused the problems. Finding the causes of the problems often lead to unpleasant discussions and blaming each other. Instead of finding the causes of the problem, what can be the better way to help children to overcome their problems?

The "Kids' Skill" method is based on solution focused approach that has been developed in the psychological and mental health settings. In this study, the method was used in schools, kindergarten and home. 23 cases were analyzed. Material was collected from recent years (2017-2018) from schools, kindergarten and home where Kids' Skill method was used. Each case contains rich data of the whole process of how children learning skills to overcome their problems. Qualitative data analysis was content analysis. The results from the data analysis provide evidence that Kids' Skill method with skills thinking and skills learning approach can help children to learn new skills to reach desired outcomes and to overcome the old problems. The cases described that the whole process of using Kids' Skill method was value creating and capacity building. It reconstructed children's thinking and reaction when facing difficult situations. It also built a supportive learning community and safe environment which created

positive relationships around the child. People around the child become more positive, more collaborative and more involved with the child. It created a positive spiral effect. This eventually increases children's well-being.

Key words: Solution focused approach, Skills thinking and skills learning mindset, Behavior changes, Kids' Skill method

Learning music in web-based learning environment

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The purpose of the study is to research how music is learned in digital learning environment. The research question is to find out which kind of learning experiences students have about studying music in web based learning environment? We want to research what are the main interests of the students in their music studies and which kind of support they need for their web-based learning.

The data has been collected by using e-questionnaire from the users of digital music learning environment. Data of 90 respondents has been analysed with content analysis and the results are presented also through quantitative tables and figures added with qualitative results from the content analyses of the open answers.