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**RESEARCH IN TEACHER EDUCATION -
THE NEXT GENERATION**

BOOK OF ABSTRACTS

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PROGRAMME

09:00 - 09:10

WELCOME

Erika KOPP, Chair, *Eötvös Loránd University*

Davide PARMIGIANI – President of ATEE, Association for Teacher Education in Europe

09:10 - 09:40

KEYNOTE ADDRESS

Aileen KENNEDY, *University of Strathclyde*

'Making a difference through teacher education research'

09:40 - 10:00

VIRTUAL ICEBREAKER - GETTING TO KNOW THE CONFERENCE PARTICIPANTS

Moderator: Luca Alexa ERDEI, *Eötvös Loránd University*

10:00 - 11:00

WORKSHOPS ROUND 1.

Workshop 1: Challenges of Qualitative methodology –

Facilitator: Kinga KÁPLÁR-KODÁCSY, *Eötvös Loránd University*

Workshop 2: Challenges of Qualitative methodology –

Facilitator: Zoltán András SZABÓ, *Eötvös Loránd University*

Workshop 3: Challenges of Quantitative methodology –

Facilitator: László HORVÁTH, *Eötvös Loránd University*

Workshop 4: Dilemmas around Mixed methods -

Facilitator: Orsolya KÁLMÁN, *Eötvös Loránd University*

Workshop 5: Issues of Contextualisation –

Facilitator: Roman SVARICEK, *Masaryk University*

Workshop 6: Dilemmas in Comparative research in Teacher Education -

Facilitators: Marta KOWALCZUK-WALEŃDZIAK, *University of Białystok* & James UNDERWOOD, *University of Northampton*

11:00 - 11:10

BREAK

11:10 - 11:45 **PANEL DISCUSSION**

Moderators: Csilla PESTI, *Károli Gáspár University of the Reformed Church of Hungary* & Vasileios SYMEONIDIS, *University of Graz*

11:45 - 12:45 **WORKSHOPS ROUND 2.**

Workshop 1: Challenges of Qualitative methodology –
Facilitator: Kinga KÁPLÁR-KODÁCSY, *Eötvös Loránd University*

Workshop 2: Challenges of Qualitative methodology –
Facilitator: Zoltán András SZABÓ, *Eötvös Loránd University*

Workshop 3: Challenges of Quantitative methodology –
Facilitator: László HORVÁTH, *Eötvös Loránd University*

Workshop 4: Dilemmas around Mixed methods -
Facilitator: Orsolya KÁLMÁN, *Eötvös Loránd University*

Workshop 5: Issues of Contextualisation –
Facilitator: Roman SVARICEK, *Masaryk University*

Workshop 6: Dilemmas in Comparative research in Teacher Education -
Facilitators: Marta KOWALCZUK-WALEŃDZIAK, *University of Białystok* & James UNDERWOOD, *University of Northampton*

12:45 - 12:55 **BREAK**

12:55 - 13:10 **PLENARY SESSION FOR SUMMARIZING THE WORKSHOP DISCUSSIONS**

Moderator: Erika KOPP & Eszter BÜKKI, *Eötvös Loránd University*

13:10 - 13:20 **CLOSING OF THE CONFERENCE**

Gábor HALÁSZ, *Eötvös Loránd University*

13:20 - 14:30 **OPEN ROOMS FOR PROFESSIONAL NETWORKING**

ORGANISING COMMITTEE

Ei Phyu CHAW, PhD Candidate, *Eötvös Loránd University*

Luca Alexa ERDEI, PhD Candidate, *Eötvös Loránd University*

Aigerim KOZHABERGENOVA, PhD Candidate, *Eötvös Loránd University*

Anna Orsolya PONGOR-JUHÁSZ, PhD Student, *Eötvös Loránd University*

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Robert PAJAZITI, MA Student, *Eötvös Loránd University*

Albert Lang LEHRMAN, MA Student, *Eötvös Loránd University*

Marisa AYU, MA Student, *Eötvös Loránd University*

ACADEMIC COMMITTEE

Erika KOPP, Chair, *Eötvös Loránd University*

Eszter BÜKKI, *Eötvös Loránd University*

Gábor HALÁSZ, *Eötvös Loránd University*

Aileen KENNEDY, *University of Strathclyde*

Marta KOWALCZUK-WALEŃDZIAK, *University of Białystok*

Csilla PESTI, *Károli Gáspár University of the Reformed Church of Hungary*

Roman ŠVARIČEK, *Masaryk University*

Vasileios SYMEONIDIS, *University of Graz*

KEYWORDS



WORKSHOP 1 - CHALLENGES OF QUALITATIVE METHODOLOGY

FACILITATOR:

Kinga KÁPLÁR-KODÁCSY, *Eötvös Loránd University*

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THE STATUS OF QUALITATIVE RESEARCH IN CHILDHOOD EDUCATION

Rachael AGARRY, *University of Ilorin*

Eyiyemi OGUNDELE, *University of Ilorin*

Qualitative research relies on data obtained by the researcher from first-hand observation, interviews, questionnaires, focus groups, participant-observation, recording made in natural settings, documents and artefacts. The data are generally non numerical. Despite the numerous qualities associated with qualitative research, studies have shown it is being underutilized. Hence, the need to evaluate the status of qualitative research particularly in childhood education is required. Three questions were answered in the study and three hypotheses were tested at 0.05 level of significance. Mixed method (quantitative and qualitative) was used to carry out this research. The population of the study comprised all childhood education researchers from various teacher training institutions in Kwara State, Nigeria. 120 researchers were randomly selected participated in the study. A questionnaire and in-depth interview were used to collect the necessary data for the study. The outcome of the study revealed that the extent of adopting qualitative research method in research related to childhood education is low. Also, the quality of qualitative research method reported was found to be on the average while adequate knowledge of the method was said to be the major challenge for most childhood educators. Thus, it was concluded that the status of qualitative research in childhood education in Kwara State, Nigeria is ranked low. Among the recommendations made is training and re-training of teacher trainers of childhood education on the use of qualitative research method.

KEYWORDS: Qualitative research, Childhood education

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Donald, A., Lucy, C. J., Chris, S., & Asghar, R. (2010). *Introduction to Research in Education* (8th ed.). Belmont: Wadsworth.

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BEHIND THE MASK – EXPLORING PRIMARY TEACHER VULNERABILITY WITHIN THE CONTEXT OF SELF-UNDERSTANDING & THE DILEMMA OF THE ARTS-BASED APPROACH

Ann-Marie IRELAND, *Dublin City University*

Within the everyday experiences of primary teachers exist vulnerabilities that the teacher may not always be aware of and yet these are vulnerabilities that are fundamental to the teaching role (Kelchtermans, 2009). This vulnerability has many sources and is responded to by teachers in various ways. One such example of this vulnerability is professional relationships; teachers feeling vulnerable as an ongoing object of critical review (Kelchtermans, 1996). Experiencing vulnerability can lead to negative responses in the form of self-protection strategies by the teacher (Blasé & Pajak, 1986). Practicing vulnerability can create trusting learning environments and promote connection (Lasky, 2005). The main aims of this study will be to shed light on how the primary teacher experiences and responds to these vulnerabilities within a context of self-understanding and presentation of self in everyday life, and to explore if vulnerability is considered by teachers as having a dual role in their teaching life. Whilst exploring the responses to this phenomenon, this study will be taking a qualitative approach, and in order to gain an entry point into vulnerability and self-understanding, will be applying methods including interviews and diary entries. Within this approach will be ABR (Arts Based Research) methods; applied to elicit a richer data set (Leavy, P. 2018). These methods will include graphic comic and poetry responses, along with jigsaw and collage creations to be followed by object interviews where the object created is interpreted with a phenomenological approach (Holmes & Hall, 2020). ABR methods carry many advantages, including the capacity to provide an opening into what may otherwise be inaccessible in terms of a deeper understanding of identity (Weber & Mitchell, 1999). However, whilst ABR can afford key insights, there is the challenge of uncovering these through methods which may facilitate and illuminate, but which may also foreclose an interpretation. Thus presenting a dilemma. For this study, one of the ABR methods being used is that of the mask that would represent the teacher's presentation of self both inside and outside of school. Whilst identity construction necessitates image-making (Weber & Mitchell, 1999), and therefore seemingly positions the mask a most appropriate device for human sense-making, the application of such a medium also poses the dilemma of its rejection of the dichotomy of doorway versus barrier. The mask may present as both. Whilst it may entice with offers of provocative possibilities to capture, process and mirror life experiences, it also holds the potential to draw in risk in terms of participant discovery of self, can be perceived as a presumption that it exists at all, along with presenting the question of whether it acts as merely a symbol holding little credibility or is actually providing further insight of how the teacher is making meaning of self and vulnerability from their experience.

KEYWORDS: Teacher vulnerability, self-understanding, mask, qualitative, arts-based

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CASE STUDY OF POSITIVE ATTITUDE TOWARDS TEACHING IN HIGHER EDUCATION: THE „ISSUE” OF GENERALIZATION

Ivana MIOČIĆ, *University of Rijeka*

The purpose of this paper is to present the methodological considerations of the qualitative case study that deals with the development of junior researchers' positive attitude towards teaching in higher education, during their professional socialization. The process of socialization in the academic profession is much longer and more complex than in other professional fields (Höhle and Teichler, 2013), so therefore it presents an interesting research phenomenon. It is a process of adapting to norms and rules in a certain professional environment as well as gaining values, attitudes, skills, and behaviours related to “surviving” in academia and establishing a personal status in academia (Schein, 1971; Tierney, 1988; Hakala, 2009).

The main goal of this study was to look deeply at junior researchers' professional socialization (at a personal/micro level, institutional/meso level and disciplinary/macro level) in order to understand how it contributed to the development of a positive attitude towards teaching. Four dimensions of a positive attitude towards teaching are recognized in their professional experience (emotional dimension, dimension of professional development; dimension of a constructivist approach to learning and teaching; dimension of teaching and research nexus). The case study selected five women – junior researchers – employed in various institutions and disciplines in the Croatian higher education system. The decision to choose these five cases was based on the “maximum benefit” criterion, which means that the selected cases are rich in information about the phenomenon under investigation (Flyvbjerg, 2006). For the purpose of this study, various qualitative data sources (e.g. interviews, documentation, etc.) were collected and analyzed. After the cases were analyzed individually, a cross-case analysis of the data was made to understand the key findings that are largely common to all five cases.

Among the many methodological considerations that marked this research, one of the most important was the “question” of how to generalize research results, because there is a myth that generalization in a case study is not possible and therefore case studies cannot contribute to scientific development (Flyvberg, 2006). This case study was guided by the idea of naturalistic generalization and phronetic research approach (e.g. Stake, 1995; Thomas and Myers, 2015; Flyvbjerg, Landman and Schram, 2012). It means that characteristics of professional socialization and their impact on the development of a positive attitude towards teaching can be recognized (transferred) in some other higher education contexts, other disciplines, or other cases of academic workers or teachers, and not just to those who participated in this research. The researcher should aim to illustrate cases deeply and in detail so the readers can recognize, reasonably understand and transfer those experiences into their own context.

KEYWORDS: case study; generalization; higher education; professional socialization

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DESIGNING PERFORMANCE APPRAISAL FRAMEWORK FOR TEACHER EDUCATORS

Aye Aye MYINT LAY, *Eötvös Loránd University*

Performance appraisal is an important step for continuous faculty growth and development, and it can help individuals and departments set both long-term and short-term goals for research as well as teaching and student learning (Hart, 1989). Existing research shows that effective and efficient performance appraisal can hold teacher educators accountable for student performance and support decisions related to career development. Currently, in Myanmar, there are no benchmarks for teacher educator performance, and promotion is also based on years of experience. To improve the quality of teacher education, performance appraisal framework for teacher educators is certainly needed in Myanmar. Hence this research tries (1) to identify the aims and objectives of a performance appraisal system for teacher educators in Myanmar Universities of Education (2) to explore the knowledge and perception of teacher educators in Universities of Education on performance (3) to identify the major domains and performance indicators that should be used to evaluate the teacher educators' performance in Myanmar Universities of Education. The research tools chosen for this research project are semi-structured interviews, document analysis and literature review. The researcher is planning to conduct 25 semi-structured interviews with education experts, heads of department, teacher educators currently working at two Universities of Education in Myanmar. The researcher will design performance appraisal framework for teacher educators based on the analysis of the similar frameworks of other countries, the teacher competency framework and educational development policies of Myanmar and the results of the interviews. Originally, the researcher planned to use mixed-method research design (exploratory sequential mixed methods design) with the purpose of achieving the meaningful and complete outcomes of the study. Specifically, the researcher planned to conduct interviews and a survey with a target population of around 400 teacher educators. But the current situations in Myanmar make it extremely difficult to collect survey data as it was under the military coup on the 1st of February 2021 and acts of civil disobedience, labour strikes are emerging within the country, in opposition to the coup. Due to these situations, the researcher will leave quantitative part out of the research since questionnaires may not be sent and returned in relevant numbers of participants. There are some methodological dilemmas such as limits to the feasibility of mixed-method research, its timescale due to the COVID-19 pandemic. The concern related to methodological choice is that it will not generate statistical evidence or a quantitative discussion as this is a qualitative study. This research will not provide the generalized results of the large representative sample and a literal interpretation of the rationale.

KEYWORDS: performance appraisal, teacher educator

REFERENCES:

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THE PhD PANDEMIC RESEARCHER – ACTION RESEARCH IMMersed IN COVID-19

Sarah NÍ DHUINNÍN, *Mary Immaculate College*

The central theme of this PhD research study is to investigate the perspectives and practices of content teachers relating to the accurate use and promotion of the target language within their classrooms. This theme is central to the principals of immersion education, which is classified as a form of bilingual education wherein academic subjects e.g. Home Economics are taught through the medium of the target language e.g. Irish (Ó Ceallaigh et al. 2017; Cammarata and Tedick, 2012; Baker 2011). This research study was conducted in the secondary level immersion context whereby Irish, the target language, was the mother tongue or minority language of the student population (Ó Laoire, 2012). This research is underpinned by the transformative paradigm and the action research model, focusing on bringing about change in understandings, beliefs and practices in relation to content and language integrated learning (Mertens, 2017; 2015). Along with being qualitative in nature, this action research study utilised the following methods in order to address the research question; observation, interview, intervention, diary and online fora. As is widely understood, teaching transitioned from the physical classroom to the online classroom almost overnight in Spring 2020 due to the COVID-19 pandemic. Thus, for the consideration of this research paper the researcher aims to shed light on the current and emerging dilemmas faced by action researchers amidst the pandemic focusing on, but not limited to, the effect of COVID-19 on teaching and learning, the impact on language acquisition and enrichment, teacher training along with recruitment and attainment of sample.

KEYWORDS: bilingual, immersion, action research, CLIL

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WORKSHOP 2 - CHALLENGES OF QUALITATIVE METHODOLOGY

FACILITATOR:

Zoltán András SZABÓ, *Eötvös Loránd University*

Olabisi ADEDIGBA - Adams ONIVEHU - Jamiu SULAIMON A Content Analysis of the Studies on Google Classroom and Teacher Education in the COVID-19 Era	24
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A CONTENT ANALYSIS OF THE STUDIES ON GOOGLE CLASSROOM AND TEACHER EDUCATION IN THE COVID-19 ERA

Olabisi ADEDIGBA, *University of Ilorin*

Adams ONIVEHU, *University of Ilorin*

Jamiu SULAIMON, *University of Ilorin*

The unexpected advent of COVID-19 pandemic has significantly changed the dynamic of teaching-learning process in teacher training institutions across the world. Hence, various stakeholders in the field of teacher education have harnessed the diverse potentials of emerging technologies, such as the Google Classroom to facilitate online learning. Therefore, extant research is saturated with various studies on the integration of Google Classroom into training of pre-service teachers. However, there is paucity of a content analysis on the methodology utilized for the conduct of research studies in various databases. To this end, the present study analyzed the studies which were carried out on the Google Classroom, in the field of teacher education during the COVID-19 era. This research is, therefore, a document review study, which is limited to the analysis of various articles that were published in various database between the years 2020-2021. The research articles were evaluated in terms of five themes, which include research type, research method, data collection methods, sample, and data analysis methods. The findings of the study were discussed in the light of existing literature and relevant recommendations for future research were advanced.

KEYWORDS: Content Analysis, Google Classroom, Teacher Education, COVID-19

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BECOMING A TEACHER: A CASE STUDY ON STUDENT TEACHER PROFESSIONAL IDENTITY CONSTRUCTION DURING THE EDUCATION PRACTICUM IN A CHINESE NORMAL UNIVERSITY

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Previous studies have presented a clear link between teachers' professional identity construction and teacher effectiveness and have considered the teacher professional identity as a pivotal factor to teacher effectiveness, decision-making on the career, commitment, as well as professional development. Therefore, a study on student teacher professional identity construction during education practicum could enhance their job competitiveness in terms of teacher effectiveness. The research questions to this study are 1. What is the status of Chinese student teachers' professional identity during the education practicum? 2. How do participants' perceptions/experiences influence their construction of professional identity during the education practicum? Bearing in mind the helpfulness of combining theories to study teacher professional identity construction as proposed by researchers, we adopted activity theory, community of practice and positioning theory into the study as synthesized theoretical frameworks to serve as lenses for better understanding the construction of student teacher professional identity. We used qualitative research method to investigate Student teachers' professional identity construction among student teachers in a teacher college in China. We chose qualitative research method because it can enrich the data and dive deeper into teacher education's problems. We practiced intercoder agreement and member checking (Creswell & Plano Clark, 2017) in order to secure credibility of the qualitative results. Findings showed that teacher knowledge, mentorship, placement school culture and recognition by important others have significant influence on student teacher professional identity construction during their education practicum. Using a qualitative approach, the study explored the process of Chinese student teachers' professional identity construction through examining their education practicum experiences. Data from focus group interviews and student teacher education reports showed four emerging themes to explain the findings, career identity, disciplinary identity, behavior identity and situated identity. Based on the findings from the study, recommendations were made for bolstering the teacher professional identity construction among student teachers during education practicum, and implications were discussed for the development of Chinese teacher education. These include the incorporation of teaching simulations (e.g. workshops) and k-12 curriculum understanding in the teacher education curriculum, and enforcing content knowledge through improving teacher education strategies.

KEYWORDS: student teacher, professional identity construction, education practicum, teacher education

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INTERVIEWING IN MATHEMATICS EDUCATION RESEARCH

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Interviewing has become one of the main tools in mathematics education research after qualitative methodologies have been developed. This presentation aimed to discuss methodological issues in qualitative research in mathematics education. It outlines some reflections on using qualitative research and providing some issues related to the interview process, mainly the technique of gaining the precise information that the researcher needs in his/her study, time management, and interferences alien information. This presentation is based on a comprehensive literature review and personal experience in using qualitative research methods in my last study.

KEYWORDS: Interview, mathematics education

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CONTINUOUS PROFESSIONAL DEVELOPMENT FOR TEACHER EDUCATORS IN MYANMAR EDUCATION COLLEGES

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The 21st-century demands to expand knowledge-based society tends to a global organization and require quality teachers. The teachers require to study a new approach of knowledge and abilities for the requirement of the education sector or life-long learning institution. Teachers are responsible to train the children to become the future leader of a country. Continuing professional development means to obtain new knowledge and new skills for a current job, to improve career opportunities in a field by the systematic education (OECD, 2000). This article investigated the effectiveness of continuous professional development to improve teacher quality and the subsequent need for the CPD for teacher educators in Myanmar. The aim of the study is to explore an in-depth understanding of the continuous professional development for teacher educators in improving the teachers' training program. The research questions are (1) How do teacher educators in Myanmar understand the ideas of continuous professional development for their professional development? (2) What CPD activities are needed for all teaching staff in Education College? (3) What CPD is needed for all teaching staff in Education College? The qualitative method was conducted in this study through semi-structured interviews. Six teacher educators from Education Colleges participated in the study. Also, three male teacher educators and three female teacher educators were interviewed. The present research has three major findings. Firstly, it revealed that professional development means teachers need to participate in different sorts of activities such as professional conversation, lesson study, training programs, workshops, and seminars. It also includes reading books, asking from experienced teachers' teaching, and discussing in online forums. Secondly, it was found that teachers believe their principles can support teachers for their professional development. Teachers have insufficient time and resources for their professional development. Thirdly, the study showed that teacher in Myanmar is not satisfied with the current practices of the teacher training programs. The professional development of teacher educators in Education Colleges will have to support which implement flexible innovative pedagogical approaches, and academic achievement. For accredited CPD training programs, the involvement of educational institutions and Colleges is essential. This study concludes with the practical implications recommending the urgent need for CPD activities of teacher educators.

KEYWORDS: continuous professional development, teacher educator

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GENERATING AND GATHERING DATA THROUGH ACTION RESEARCH

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This paper reports on a small-scale action research PhD study located in the Republic of Ireland. It documents the experiences of eight teachers as they implement a Content and Language Integrated Learning (CLIL) approach while teaching mainstream mathematics (as a content area) through Irish as a second language (L2). Eight early years (five-year olds) teachers from eight English-medium elementary school settings (approximately), will participate in this action research study. CLIL is expressed in the literature as a dual-focused educational approach which an additional language is used to teach language and content (Coyle et al., 2010). The symbiosis between language pedagogy and the CLIL classroom is attracting increased interest in the Republic of Ireland due its prominence internationally (Cammarata and Ó Ceallaigh 2020). This research hopes to address a lacuna identified in the literature in Ireland relating to the necessary practical knowledge base or strategies required for elementary teachers to overcome practical dilemmas when implementing CLIL through Irish in English-medium schools. Grounded in the constructivist paradigm, action research as a qualitative approach allows the researcher to actively engage with and observe the participants as they plan, enact and review CLIL lessons through classroom research (Cohen et al., 2018). Initially, the researcher will design and deliver a professional development (PD) module encompassing CLIL pedagogy to develop specific teacher competencies with CLIL. A community of practice (CoP) model of PD (Wenger 2000) will be adopted to provide opportunities for the teachers as research participants to interact, share ideas, celebrate pedagogic gains and tease out emerging challenges in order to enhance the shared group goal of effective CLIL pedagogy. Multiple methods will be used to collect data, e.g. observation, a reflective diary and focus group interviews (Stringer and Ortiz Aragón, 2021). In particular, this paper will consider the methodological challenges associated with the study, including sourcing consenting teachers to partake in this research in terms of adequate competence to teach mathematical language through the Irish language, ensuring participant commitment of one school year to participate in the study, seeking to establish a research agenda according to participants' experiences and perspectives and maintaining an ongoing record of progress through various action research cycles. The real challenge for the researcher however, will be to enable participants to develop competencies to tackle the dual dilemma of balancing content knowledge with language development in instruction. An evolving knowledge base of teacher language awareness is an aspect of CLIL highlighted in the literature therefore, achieving this goal will be an ongoing target of the research process during PD opportunities. The paper concludes with a discussion on solutions to the methodological challenges explored.

KEYWORDS: Content and language integrated learning, teacher knowledge base, language awareness, balancing content and language

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PARTNERSHIP IN TEACHER EDUCATION: INVESTIGATING CURRENT PARTNERSHIP PRACTICES BETWEEN SCHOOLS AND UNIVERSITIES IN MYANMAR

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As networking and collaboration becomes the essential source for knowledge sharing and creation, one has to cross boundaries for new experiences and to learn from them. In teacher education, boundary crossing and collaboration can be enhanced by school or university partnership which may provide rich learning opportunities than none of the partners can provide alone (Cochran-Smith, 1991). This paper aims to examine the current school-university collaboration practices in teacher education in Myanmar. The purpose of this study is to understand partnership practices and their impact on teachers' learning. The main research question is "what are the current collaboration practices in teacher education and what is their impact on teacher learning?". Mixed method research is applied in this study. Survey data were collected from 56 participants (school teachers and student teachers) and 4 participants were thoroughly interviewed. Research revealed that participants consider such collaboration as essential and beneficial for their learning and knowledge creation. On the other hand, "different perspectives and opinions between the two entities" is a common obstacle for successful and trustful collaboration. Both partners declared the impact of collaboration positive as it enhanced their reflection on their teaching/learning and gave them new ideas. Interestingly, collaboration between schools and university focusing on new curriculum development appears to be the most advantageous form of learning and knowledge-creation for school teachers. My dilemmas for methodological issues of this research include the sample selection and data analysis procedures. For sample selection, I am still not sure what percentage of data should be chosen for pilot study and also for overall research sample. Another dilemma is data analysis part for qualitative interviews data coding. I did my coding based on my experiences but I would like to find out more systematic qualitative data analyzing procedures.

KEYWORDS: School-university partnership, collaboration, teacher education, boundary crossing, knowledge creation

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WORKSHOP 3 – CHALLENGES OF QUANTITATIVE METHODOLOGY

FACILITATOR:

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PROFESSIONAL DEVELOPMENT FOR 21ST CENTURY TEACHERS

Marinela BORAS, *Josip Juraj Strossmayer University*

Professional development is an important aspect of life of every teacher as it represents a life-long learning process of acquiring knowledge and various skills. As teaching methods have been adapted to 21st century learners, teachers also need to professionally develop themselves to be able to teach the new generations of learners. According to Darling-Hammond, Hylar and Gardner (2017), effective teacher professional development can be defined as structured professional learning that results in changes in teacher practices and improvements in student learning outcomes. The aim of this paper is to explore the professional development of teachers as they should motivate learners for life-long learning and help them acquire 21st century skills. Weinert (2001) defines competencies as individual's cognitive competencies and skills for solving specific problems. Rychen and Salganik (2003) define competencies as individual's skills for successful solving individual or social demands or activities and tasks. Minet, Parlier and de Witte (1994) understand competencies as levels of activities – objective, which are affected by tasks and conditions, and subjective, which are affected by cognition and experience. Parry (1996) thinks that competencies correlate with success and that they can be improved by education and training. Perrenoud (2002) says that competencies represent the ability of being efficient in different situations and that they are based on knowledge. Epstein and Hundert (2002) say that competencies should be observed as developmental signs which differ according to different level of professional functioning of an individual, the length of work status and area of interest. This research will be conducted through surveys, the sample will consist of secondary school teachers at a selected school and the results will be analysed by descriptive statistics. Some methodological dilemmas to be considered are when, how and why should we use quantitative methods in this research. Regarding the quantitative approach – is it enough to conduct a research through surveys or should interviews also be included to deepen the knowledge of the topic? If so, what kind of interview would be the most appropriate? In addition to that, should the sample include secondary school teachers from different schools versus a research at a selected school? This research will respect all the ethics needed when conducting a scientific research. The goal of this research is to find out if teachers' previous professional development is enough to teach learners important 21st century skills and how teacher professional development can be improved in the future. This research could bring new insights in the field of didactics as professional development courses could be improved to better suit the needs of teachers and their students. Further research could also implement improved professional teacher development into European school curricula.

KEYWORDS: successful teaching, competencies, professional teacher development, life-long learning, 21st century skills

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INDICATORS OF THE CHILDREN'S UNIVERSITY THAT INCREASE CHILDREN'S INTEREST IN STEM

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Ualikhanov Children's University makes a significant contribution to the system of additional education in Kazakhstan. The goal of the Children's University is to stimulate the scientific interest of children aged 8-12 in STEM. Since 2016, the Children's University has been working to expand the horizons of students, deepen scientific knowledge in a number of natural sciences, as well as to form an active life position of children.

Students of the city's schools are offered eight classes, which are held every month during the academic year at the university. Students of the 3rd year of pedagogical specialties of the Faculty of Natural Sciences under the guidance of methodologists conduct practical classes and laboratory experiments in physics, chemistry, biology, mathematics, computer science, geography and talk about their application features in human life.

By time, classes last about 2 hours, usually in the morning, for example, from 10.00 to 12.00 with 10 minutes of psychological training or musical warm-up activities every 20 minutes. In the context of the pandemic in 2020, classes of the Children's University were held in a remote format.

The training program of the Children's University, developed and successfully implemented by the teaching staff of the departments of the Faculty of Natural Sciences and aimed at deepening knowledge in biology, chemistry, physics, mathematics, computer science, geography. The summer camp of DU allowed to unite children who show interest in research work, in order to organize their interaction with their peers, with university teachers in the conditions of joint creative, research activities.

The main strategy of the Children's University is for children to meet with researchers, visit the university's laboratories and be able to independently conduct simple experiments. To date, about 250 children have attended the Children's University, not counting those students who signed up for our classes again. All participants of the Children's University receive certificates for success in research activities, gifts that are prepared by students and handed over in a solemn atmosphere with the participation of parents and school representatives.

The main goal of the Children's University is to identify and investigate indicators that arouse interest in science, precise STEM technologies in primary school children in non-formal education.

In the study, the following tasks were set: 1 (Q1): does children's University attendance increase their interest in STEM?; 2 (Q2): What indicators of Children's University activity do children themselves find interesting?

The use of a mixed method, including both questionnaires and semi-structured interviews, was developed specifically for the Children's University in order to determine the growth of interest in STEM, their general interest in science.

KEYWORDS: Children's University, Labster virtual 3D lab, STEM, students-future teachers.

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Conceptual approaches to the development of additional education for children in the Republic of Kazakhstan. <https://www.ziyatker.org/legislation>

HUNGARIAN SECONDARY SCHOOL LEARNER'S INDIVIDUAL LEARNER DIFFERENCES AND EE ACTIVITIES: THE RESULTS OF A QUESTIONNAIRE SURVEY

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Secondary school students often engage in leisure time English activities, or in other words, extramural English activities (Józsa & Imre, 2013; Sundqvist & Sylvén, 2016). These activities provide foreign language input to language learners, giving them the opportunity to acquire linguistic elements while engaging in them (Schmidt, 1990; Schmidt, 1994; Schmidt, 1995). In addition, as extramural English activities are done for entertainment purposes, they may be also related, among others, to (language learning) motivation (Dörnyei, 2005; Dörnyei, 2009). The aim of this paper is to present a quantitative, questionnaire study with a focus on the possible relationship between individual learner differences (namely: Second Language learning motivation, Foreign Language Anxiety and Foreign Language Willingness to Communicate) and various extramural English activities. One of the main aims of the present research is to examine whether there is a connection between said individual differences and how often Hungarian secondary school students engage in extramural English activities. The preliminary results of the study show that there is a positive relationship between foreign language leisure activities and the aforementioned individual differences, and that students who frequently engage in extramural English activities are more motivated, less anxious and willing to speak English more often than their peers.

KEYWORDS: extramural English activities, individual differences, language pedagogy, secondary school students

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THE RELATIONSHIP BETWEEN TEACHER BURNOUT, WELL-BEING, AND CHARACTER STRENGTHS - THE RESULT OF AN EXPLANATORY STUDY

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Seligman (2011) suggests five components of well-being and developed a new model of well-being which he called PERMA (PERMA is an acronym formed from the first letters of each domain defined by Seligman as a determinant of well-being). The theory posits that well-being consists of the nurturing of one or more of the five following elements: Positive emotion, Engagement, Relationships, Meaning, and Accomplishment. Character strengths are positively valued traits that are expected to contribute to the good life (Peterson and Seligman 2004). Seligman (2011) proposes that character strengths underpin all the five elements of PERMA. Thus, character strengths should positively relate to the pursuit of all strategies for attaining well-being. Further, strengths are a valuable starting point for interventions that aim at increasing well-being (e.g., Ghielen et al. 2017). Teachers are very often at risk of burnout, which can affect their physical and mental health, work performance, and life satisfaction (Hakanen, Bakker, & Schaufeli, 2006). Unfortunately, Hungarian teachers are also affected by burnout syndrome, which has been supported by several studies (e.g., Szabó and Jagodics, 2016; Salavecz et al., 2006). However, well-being can serve as a protective factor against burnout. Well-being can prevent burnout and has many other work-related positive benefits, such as increased job satisfaction and commitment (Kun and Szabó, 2017). The main goal of our research is to explore the relationship between burnout, well-being, and character strengths. Furthermore, we would like to identify which elements of well-being and strengths can serve as a protective factor against burnout. 264 primary and secondary school teachers participated (average age = 47.7 years) in our study. Burnout was measured by Maslach Burnout Inventory (Maslach and Jackson, 1981), besides the Workplace Well-Being Questionnaire (Kun, Gerakné Krasz and Balogh 2017) and the VIA-IS-M Questionnaire (McGrath, 2019) for measuring character strengths were used. According to the results, educators are most affected by emotional exhaustion, 33% of the sample showing high emotional exhaustion. To explore the relationship between burnout, well-being, and strengths, first a correlation analysis was conducted and then linear regression analysis on burnout dimensions. All elements of well-being showed a strong negative connection to emotional exhaustion and depersonalization ($r = -0.26-0.66$) and positive relation to personal accomplishment ($r = 0.17-0.55$). Based on regression analysis, emotional exhaustion was most affected by Positive Emotions and Engagement well-being elements and by the character strengths of Vitality and Hope. The results based on self-reported questionnaires, which may lead to bias evaluation, so I face the following methodological dilemma: how can teacher burnout and workplace wellbeing be measured more objectively with various methods?

KEYWORDS: teacher burnout, well-being, character strengths

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ROLE OF ADOLESCENT DEVELOPMENT IN THE SOCIALIZATION PROCESS DURING PREADOLESCENCE LIFE PERIOD

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The beginning of adolescence is a turbulent period for every person, and it is mostly marked by the school environment and society. Young people at the beginning of their adolescent development experience strong changes in social behavior, which are precisely related to the processes of (pre)adolescence (Blos, 1962; 1979; Levine, Green & Millon, 1986). An integral part of socialization in (early) adolescence is the influence of peers that exists due to the presence of peers in the lives of adolescents (Wright et al., 2007; Willekens & Lievens, 2014; Fujimori 2017). It is of interest to explore the link between the success of adolescent socialization in their school grades and their success in coping with the new developmental (mental) processes of adolescence. Young people at the beginning of adolescent development show strong and significant changes in their social behavior, which is caused by adolescent development (Card & Hodges, 2008; Špelić, 2020). Accordingly, research is focused on examining aspects of adolescent development that play a significant role in their socialization. The main goal of this research is to determine the success of socialization in students in the period of early adolescence (6th, 7th and 8th grade of primary school) in their classrooms and the significance of their success in mastering the tasks of adolescent development. The sample of this research consists of 157 students from 12 grades of subject teaching from 6th to 8th grade of primary school (92 male and 65 female). A sociogram (Moreno) was used in the context of acceptance and rejection of other peers in the class, Separation-individuation test for adolescents (SITA) containing 5 variables: 1 - negation, 2 - separation anxiety, 3 - symbiosis, 4 - regression, 5 - optimal mastery; and a Self-concept test that includes a scale of self-acceptance and feelings of social support. Given the success in socialization, three groups of students were formed: G1 are low (N = 55), G2 are medium (N = 57) and G3 are high (N = 45) degree of sociometric status. A positive correlation was obtained between success in the development of psychological autonomy and success in socialization in the classroom in students in early adolescence. This correlation stems from the success in the development of empathy and self, which is evident from the results of their success in mastering the processes of adolescent development. These results indicate that problems in socialization, such as the occurrence of (typical) adolescent behaviors in early adolescence, should be understood as the failure of adolescents in the development of psychological autonomy in which family dynamics and parental capacities in mastering adolescent developmental processes play a very important role. There are several dilemmas about methodology and conducting a research: avoiding Hawthorne effect, reliability in sociometric method and the issue of working variables.

KEYWORDS: adolescence, empathy, self, socialization

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PSYCHOMETRIC EVALUATION IN DEVELOPING E-LEARNING READINESS IN SCIENCE CLASSROOM (ELRSC) QUESTIONNAIRE USING RASCH ANALYSIS

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The implementation of e-learning faces some difficulties during the pandemic COVID-19 era, such as a lack of ICT skills in science animation or using science formula (So et al., 2019). There is no practical guideline for psychometric evaluation using Rasch analysis with interval scale (logits) and limited instrument for measuring students' e-learning readiness, especially in science classroom. This study described the ELRSC questionnaire and evaluated the psychometric properties of ERLSC. 1488 students (34,7% males and 77% public school) participated through an online questionnaire. Rating scale analysis was performed for psychometric evaluation comprising of data cleaning, dimensionality, rating scale functioning, item properties, person responses, item-person map, reliability, and the differential item functioning (DIF) for item bias (Bond et al., 2020). The ELRSC was constructed with 40 items using 5 Likert scale and divided into 6 dimensions: Technology Skills (TS), Attitude Toward Technology (ATT), Technology Availability (TA), Technology Efficacy (TE), The Use of Technology (TUT), Independent Learner (IL). In data cleaning, 121 outliers were found with Outfit MNSQ less than 2. Next, item dimensionality evaluated separately for 6 dimensions. All dimensions measure met acceptable criteria for unidimensionality with raw variance by measure ranging from 47.4% to 57.7%, indicating 6 dimensions can be distinguished. For rating scale functioning and item properties, all items fit the model with the outfit and infit MNSQ less than 2, ranging from 0.65 to 1.75. The average measure increased monotonically from -2.48 to 2.55 for 5 categories ((1) strongly disagree to (5) strongly agree), indicating ELRSC well-functioning and reflecting distinct peaks for all categories. We examined the quality of student responses by evaluating person outfit MNSQ (< 2), whereby 1368 students fitted the statistics model. Item-person map showed that the distribution of item difficulties was matching with person abilities with logit measure ranging from -4 logits to 5 logits. Item IL5 (I learn science material before starting e-learning class) was the most difficult item (1.34 logits), explaining students lack interest in self-learning in the science classroom. Item TUT3 (I often use mobile technologies, e.g. Smartphone) was the easiest item indicating that students utilized the mobile technologies in the science classroom. The item and person reliability were 1.00 and 0.92 sequentially, confirming the reliability criterion achieved with excellent results. Mantel and Rasch-Welch result showed significant DIF across school type on item TS5 (I know how to connect the computer or laptop to other hardware like the headphone and mouse), $|DIF| = 0.62$ (moderate bias), which was 0.46 logits more difficult for private school students than public school students. This study had illustrated practical guideline for instrument development using Rasch analysis.

KEYWORDS: Rasch analysis, psychometric evaluation, e-learning readiness, instrument, science classroom

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HELPING THE RESEARCHER – UNDERSTANDABILITY AND AUTOMATION IN MULTIPLE LINEAR REGRESSION

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Current practices in data analysis have contributed substantially to the replication crisis (Wicherts, 2017). Multiple studies showed that the misuse of statistical methods (Hoekstra et al., 2014), the misinterpretation of metrics (Cumming, 2014), the lack of assumption testing (Hoekstra et al., 2012) and not reporting important metrics such as reliability are prevalent issues.

The development of automatic data analysis software is a potential tool to partly remedy this problem. CogStat is an open-source data analysis software based on two key features:

1. Automatic analysis

CogStat automatically chooses the appropriate metrics, descriptive statistics, interval estimation methods and automatically runs assumption checks and chooses the most appropriate hypothesis test.

2. Optimized output

Results of the analyses are presented in a structured format that aims to improve intuitive understanding of the data. Among others this aim is aided by intuitive visualizations, selecting the metrics shown based on multiple factors including their ease of interpretation, and avoiding redundancy in the output.

Thus, CogStat helps remedy the above mentioned problems in two ways: (1) It organizes and automates the often cumbersome process of assumption testing, selecting the appropriate metrics, visualizations and selection of analyses and (2) it aids understanding by providing a well-planned and optimized output.

Here, we describe a potential implementation of multiple linear regression (MLR) into CogStat. MLR analyses are used widely and also have very complex assumptions that can be difficult to check, whereas it is not straightforward to remedy violations of these assumptions (Lynam et al., 2006; O'brien, 2007). This makes MLR complicated to use in practice. Thus, it is an important analysis to implement into CogStat.

Implementing MLR into CogStat raises several important questions. How should we interpret violations of given assumptions of MLR? How can we deal with such violations? How can we automate these solutions? What is that we can and can not automate? How can we make the output understandable and clear instead of providing tables upon tables to the researcher? How can we visualize multidimensional relationships? What is an outlier in a multidimensional relationship? What model metrics are relevant? What metrics might be irrelevant or misleading?

Our aim in this project is to answer these kind of questions. By implementing MLR in CogStat we aid researchers in several fields including teacher education research, psychology, medical research, linguistics and biology.

KEYWORDS: multiple linear regression, replication crisis, automatic analysis, research practice

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EMERGING CHALLENGES IN QUANTITATIVE TEACHER EDUCATION RESEARCH: PERSPECTIVE OF LANGUAGE EDUCATORS

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In the current global crisis, COVID-19 compelled all the schools to be closed and suspended worldwide. The pandemic's containment tactics, particularly the lockdown measures, directly impacted many areas, including the economy, medical care, education, and research. Teacher Educator Researchers are greatly affected as this pandemic limits them from going to the libraries, conducting surveys, and having face-to-face consultation with different experts in the field. Recent studies provide evidence that quantitative research in the Philippines is the most used type of research. As the outbreak continues to prevail, the need to determine the emerging challenges of Language Educators in conducting Quantitative Teacher Education Research needs to be highlighted to help future researchers be familiar with these dilemmas. This paper aims to describe and highlight different challenges on how language teachers conduct education research and the possible interventions and recommendations they may suggest to break those dilemmas in our industry. This paper pointed out different challenges and insights from the findings with focus group discussions, interviews, and conversation analysis. This study reveals that language teachers lack research knowledge and skills, long process of ethical validation, lack of knowledge using statistics as a tool in analyzing data, unsupported by the school, heavy workloads, and lack of recognition. It is also revealed that teachers need to attend and participate in research training focusing on the ethical standards in quantitative research and applying various statistical treatments. Teachers also mentioned receiving research incentives, having a shorter teaching schedule, and less paperwork to conduct research. Finally, these implications will be communicated to school administrators, policymakers, and head institutions, encouraging them to evaluate the study's findings and address these teacher-researchers requirements to foster a healthy research-oriented environment.

KEYWORDS: COVID-19, quantitative, research, language educators, challenges, interventions

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WORKSHOP 4 - DILEMMAS AROUND MIXED METHODS

FACILITATOR:

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ENCOURAGING PRE-SERVICE TEACHERS' USE OF MIXED METHODS IN RESEARCH WITH YOUNG CHILDREN THROUGH PARTICIPATORY ACTION RESEARCH

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Kayode Ezecheal OBAFEMI, *University of Ilorin*

The proper understanding of a phenomenon involving young children often requires research approach whereby researchers collect and analyze both quantitative and qualitative data within the same study. This approach, characterized by mixed methods research which allows the researcher to link data and provides the researcher with in-depth understanding of the phenomena. Consequentially, this increases the quality and quantity of data interpretation and compensates the weaknesses identified in other approaches. Many advantages of mixed methods have been confirmed in literature. This includes their ability to control the strengths of various methods, provide empirical evidence from multiple sources and richer insights into phenomena of interest that cannot be fully understood if only quantitative or qualitative method is used. The general assumption is that a mixed methods approach is technically challenging compared with single threaded approaches. Many researchers do not have good disposition to the use of mixed method while pre-service students also do not receive much training compared with the instruction and exposure given to them in the use of qualitative and quantitative methods. In view of the above, this paper examined the preservice early childhood education students' knowledge of, interest in and views on mixed methods approach in conducting research and also reported a procedure of participatory action research used to enhance their skill in the use of mixed method approaches. This study adopted triangulation design within mixed methods approach paradigm to measure the understanding of pre-service childhood educator of the use and challenges of mixed methods in conducting research with young children. A structured questionnaire was used to elicit information about the previous knowledge of the participants on the use of mixed method. The triangulation permits a deeper view of the phenomenon being investigated; while the participatory action research developed a programme plan that was used in solving the identified problem. Results of the study confirm the credence been recently given to the use of a multiple method design. It is therefore suggested that mixed methods research be encouraged in early childhood education research to encourage authentic investigation and confidence that would provide a versatile and more complete picture of the phenomenon under examination.

KEYWORDS: Mixed methods, Young children, Triangulation, Pre-service teachers

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WHY ARE TEACHER TRAINEES LEAVING THE UNDIVIDED TEACHER TRAINING, AND WHAT ARE SOME RETAINING FORCES?

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The paper examines the possible reasons for student dropout from undivided teacher training and attempts to find patterns in teacher trainees' views on how the Hungarian undivided teacher training could be improved. The study is based on a qualitative narrative interview with 12 students admitted to the ELTE undivided Hungarian-English teacher training in 2016. Six of them are still in training, and six of them left the university. The aim was initially to find relevant information and observe teacher trainees' attitude among a smaller focus group. The narrative interview (Connelly & Clandinin, 2011) provided the research with tools for the analysis. The theory of possible-selves (Markus & Nurius, 1986) was also incorporated into my semi-structured interview, the assumption was that the systematic incorporation of the teacher 'role' into students' potential self-image in undivided teacher education is one essential retaining force. The panels of the study included personal and community relationships, location, and the role of time. The interpretation and further reflection of the research was aided by McKinsey report (Barber & Mourshed, 2011). Key findings of the study include that most of the problems are related to the relationships and the structure of the teacher education system. A comparative study comparing the curricula of five teacher training programmes of five universities supplemented the research. The curriculum of the first three years of the training should be rethought, with particular regard to the balance between pedagogical and psychological, methodological and disciplinary classes. The research was conducted in 2019, and it has been rethought ever since, with an additional aspect of legal awareness in teacher training, which appears to be a very much missed area. Although qualitative methods can lead to a better understanding of finding ways to improve the undivided teacher training in Hungary, I know a bigger and more diverse sample would be beneficial. The greatest dilemma of the research is finding the balance between qualitative and quantitative sampling. While qualitative data can help in depicting real issues among smaller groups, quantitative could support or question the findings of the focus group. Another uncertainty is whether one can build a quantitative measuring tool based on the qualitative key findings.

KEYWORDS: teacher training, dropout, legal awareness, undivided teacher training

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A PILOT STUDY: EPISTEMOLOGICAL BELIEFS QUESTIONNAIRE IN MYANMAR CONTEXT

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Based on Schommer's scientific works, epistemological beliefs have been defined as the individuals' subjective beliefs on what knowledge is and how we know about something (Schommer, 1990). In the last few decades, a growing number of educational research on epistemological beliefs of teachers and student teachers has been found (Schommer, 1990; Ozkal et al., 2009; Apyay, 2010, 2011). The cultural specificity of epistemological beliefs is pointed out in the literature by showing the different nature of epistemological beliefs dimensions which leads to the need for conducting more research on this area in different cultures in order to obtain a holistic understanding of the topic (Hofer & Pintrich, 1997). To fulfil this need, the present paper reports on the pilot study on the epistemological beliefs questionnaire developed by the researcher in Myanmar cultural context. The main research question for this study is to find out the reliability coefficient of the questionnaire. The questionnaire contains 33 items which were written both in positive and negative forms and distributed evenly among the questionnaire. A total of 300 teacher candidates from two Education Colleges in Mandalay Region were selected from the population of 1500 student teachers by using stratified random sampling method. Collected data are analysed by using descriptive statistic with the help of SPSS software. The reliability coefficient (Cronbach alpha) of the questionnaire was 0.884. Epistemological beliefs of student teachers were found at high levels in all dimensions of the questionnaire except the "source of knowledge" dimension. This result indicates that they tend to get knowledge from the authorities not from their reasoning. Significant differences were found between epistemological beliefs of student teachers according to their learning environment and gender. The research findings of this study are expected to add new insight in this area and to contribute to the researcher's doctoral dissertation. The methodological dilemmas related with this study is about its reliability. Some of my colleagues found out in their studies that some participants answered the questionnaires by selecting the same score. How can the researcher know if the participants respond their real opinions or not?

KEYWORDS: epistemological beliefs, student teachers

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STUDENTS' DIVERSITY AND INCLUSIVE EDUCATION: A TRANSFORMATIVE LEARNING COMMUNITY (TLC) CASE STUDY

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This research project is part of a larger project, developed by the Institute of Education (University of Lisbon) research center - UIDEF - which aims to find answers to the challenge of including all students in school, especially at a time when the legislation for inclusive education, in Portugal, foresees several changes. Thus, Decree-Law No. 54/2018 states that schools must provide adequate responses to students' diversity adapting teaching processes and mobilizing diverse strategies to foster learning and participation of all students. However, organizing schools, curricula and the teaching-learning process to respond to students' diversity is a process that requires sensitivity and recognition of this reality (Kaldi et al., 2018; Messiou, 2017) and a change of beliefs and practices allowing the pursuit of adequate answers (Watkins & Donnelly, 2013, Messiou, 2019). According to this, the transformative learning community appear here as a proposal for the development of collaborative cultures based on reflective practices, considering practice and theory as “complementary and inseparable concepts, using theory to make sense of the practice, and reconstructing it” (Tinoca et al., 2015, p. 108). Thus, this project's main objective is to understand how the development of a Transformative Learning Community (TLC), focused on diversity, can promote the development of an inclusive school and consequently, teachers' professional development. Therefore our research problem is: how does the development of a TLC, around the issue of diversity, promote an inclusive school? To study this problem, we focused on four main goals: (1) characterize the development process of inclusive education through the current policy framework; (2) analyze the students' voices (i.e. thoughts, emotions and actions) about the inclusion process in the school environment; (3) understand the influence of a TLC, focused on issues of inclusion and diversity, in the teachers' personal and professional development. Given the project's participatory nature we adopted a Design-Based Research (DBR) approach, blending empirical educational research with theory-driven design of learning environments. This innovative research approach “integrates the development of solutions to practical problems in learning environments with the identification of reusable design principles” (Herrington et al., 2007, p. 4090), adding the advantages of qualitative and quantitative methodologies. Considering that DBR protocols require intensive and long-term collaboration between researchers and practitioners, instruments will be collaboratively developed within the community. Nevertheless, at least 3 types of instruments will be used: questionnaires; focus group interview protocols; and observation field notes. In this sense, one of the methodological dilemmas we have encountered relates to the students' collaboration in the process of developing the data collection instruments.

KEYWORDS: Students' Diversity, Inclusive Education, Transformative Learning Community, Teachers' Professional Development

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USING AN EXPERIMENTAL APPROACH TO IMPROVE TEACHER EDUCATION: A NOVEL QUANTITATIVE METHOD TO INVESTIGATE TEACHERS' ATTITUDE TOWARDS INEQUALITIES

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The application of experimental methods in teacher education is still very scarce. The present research presents a novel example of how such approaches can be used to improve our understanding of teachers' attitudes and behaviour and by that how they can potentially improve teacher education. Specifically, we developed an online paradigm where the effect of different kinds of inequalities (e.g., racial, gender, and economic) can be experimentally varied while the perception and attitude of teachers can be measured at the same time. Understanding peoples' (and teachers) attitudes towards inequality is crucial: the increase of financial inequality was a significant and accelerating trend of the last decades (Saez & Zucman, 2016), while racial and gender inequalities were also at the centre of attention in the classroom and beyond (REF). Importantly, these inequalities are often associated with several negative outcomes: for example, higher inequality tend to be correlated have higher crime rates (Thorbecke & Charumilind, 2002), and worse health (Leigh, Jencks, & Smeeding, 2009), less happiness (Oishi, Kesebir, & Diener, 2011) and individuals in those situations often make more risky decisions (Payne, Brown-Iannuzzi & Hannay, 2017). However, we argue that not all inequalities are equal: within every classroom, there exists the potential for inequality in various forms, but teachers play an essential role in either the reproduction or transformation of these potential inequalities and how it exerts negative consequences (see also Tyle 2011). For example, recent psychological research indicates that not everybody is affected to the same extent by the negative effects of income inequality. In our own research using archival, correlational and experimental data from the U.S., the U.K., Australia and rural Uganda (N = 1,079,468), we provided empirical support the poor are more affected than the rich (Jaczimowicz et al., 2019), while Sommet, Morselli és Spini (2019) has found that the income inequality affects the psychological health only of poor. Our newly developed online paradigm can support basic research by enabling researchers to explore teachers' perceptions and attitudes toward different kinds of inequalities. We argue that by understanding the underlying psychological mechanisms and the biases in the teachers' attitudes, we can develop better teacher training supporting a more equitable society. We also admit that our research and paradigm have important limitations: as it is based on online data collection, to increase its' external validity, it is advisable to use it in a mixed-method setting together with other classroom-based approaches to maximize its potential impact. Dilemmas related to methodological issues: How can experimental online research be used to improve teacher education? More specifically, what are the most appropriate methods to explore teachers attitudes towards inequality?

KEYWORDS: experimental approach, online paradigm, mixed method, inequality

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UNDERSTANDING THE LACK OF FEMALE LEADERSHIP IN HIGHER EDUCATION OF KAZAKHSTAN

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This is an ongoing doctoral thesis on female leadership in Kazakhstan. Kazakhstan has a unique history, which perplexes in interesting and conflicting societal expectations on gender roles. These norms echo in families, education and careers of women (Kuzhabekova & Almukhambetova, 2017). Kazakhstani statistics show that in total, there is almost an equal number of men and women with advanced educational degrees and 70% of all faculty members are women (Lipovka, 2018). Kazakhstani female faculty members are as educated as men, however, the ratio of women and men at the academic management level (rectors, vice-rectors, deans) are not equal. Several studies have addressed this phenomenon in the sphere of higher education sector, however little empirical research has actually been conducted on Kazakhstan. Therefore, this research aims to understand the phenomenon of female underrepresentation in higher leadership of Kazakhstan, from the perspective of women at the different stage of their academic career (PhD students, early, mid, senior-level professional). Qualitative interviews and online surveys will be the main instruments for data collection. Qualitative and quantitative data will be analysed separately, then merged to explain the phenomenon of investigation. Due to the time limits and accessibility issues, the author has chose to implement survey to female PhD students; and interview female PhD students, early, mid-, senior-level professionals. The author has chosen to implement the mixed methods research design for this study because according to Cresswell (2014): “The core assumption of this form of inquiry is that the combination of qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach alone.” The main dilemmas the author face during the research is: (1) how to ensure the validity and reliability of data while collecting both quantitative and qualitative research; (2) how to analyse mixed methods research considering the time limits of the PhD studies; (3) what are the potential drawbacks of surveying only PhD students, but interviewing women at the different stage of their careers?

KEYWORDS: Central Asia, Kazakhstan, female leadership, higher education

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WORKSHOP 5 - ISSUES OF CONTEXTUALISATION

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A META-ANALYSIS OF REPRESENTATIONAL COMPETENCE IN PRACTICE FOR ASSISTING SCIENCE LEARNING

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Representational competence is a way of describing, organizing, transforming, and presenting complex information to understand concepts and processes (Jill et al., 2018). Recent studies have emphasized the importance of representational competence to improve student learning outcomes in science (Nielsen et al., 2018; Stull & Hegarty, 2016). Therefore, it is crucial to engage representational competence in science learning. However, based on initial literature searching, no studies performing meta-analysis to investigate the effectiveness of representational competence in science education context. This study investigates the role of representational competence in science learning by performing a meta-analysis to determine the total effect sizes of various literature. By deciding the role of representational competence in a science context and study characteristics using effect size, we can investigate the effectiveness of representational competence in science learning. In the literature searching process, the Preferred Item for Systematic Reviews and Meta-Analysis (PRISMA) statement (Moher et al., 2009) was applied to improve the quality of reporting. Scopus and Web of Science (WoS) databases were accessed using the Boolean operator or keyword “representational competence”. There were 225 studies included in the initial selection process with a 20-year time frame (2001 to 2021). Furthermore, the articles found using the keyword were filtered based on (1) author; (2) year of publication; (3) type of publication (4) publication stage (5) representational competence (6) document type (7) source type and (8) language. Then we selected and analyzed 22 intervention studies out of 255 studies after following the PRISMA guideline. Effect size, standard error, r correlation, t value, F value, and the number of participants were collected to perform meta-analysis with random effect and Restricted Maximum Likelihood (RML) using STATA 16 software. Hedges’s equation was used to calculate the effect size with 95% confidence interval (CI). The results showed that the total effect size of the role of representational competence in science learning is 0.50 with CI (0.35, 0.65). The Funnel plot was performed to check publication bias. There is no publication bias found in this meta-analysis (Egger’s test $p=.4793$, $p>.05$). Our findings indicate that fostering students’ representational competence can lead to higher achievement in science learning. Generally, the results contribute to the deeper understanding of the characteristics of representational competence in science education and to the development of effective teaching practices for enhancing student science achievement.

KEYWORDS: representational competence, meta-analysis, science learning

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PRACTICUM IN PRE-SERVICE TEACHER EDUCATION IN MYANMAR: DILEMMAS ABOUT METHODOLOGICAL ISSUES

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Erika KOPP, *Eötvös Loránd University*

My research is focused on practicum in pre-service teacher education. Practicum is a field experience when prospective teachers teach in schools and apply their learned knowledge from their university program in real classrooms (Ngidi & Sibaya, 2003). Darling-Hammond (2008) claimed that pre-service teachers' learning only in teacher education institutions' classrooms without practicum in field schools was insufficient, as both types of learning gave pre-service teachers the chance to test and rethink the knowledge gained from their studies and practical teaching. The study is aimed to gather information on implementing teaching practicum to improve the quality of the practicum in pre-service teacher education programs in Myanmar. The key actors in the practicum are student teachers, teacher educators, principals, and subject teachers from practice schools. From the point of view of the university, participants include student teachers and teacher educators. Participants include novice teachers to get evidence about the role of teaching practicum for their knowledge and preparedness to teach in their first-year teaching. The study is conducted with the main research question of "What is the role of practicum in pre-service teacher education in Myanmar?" I plan to use an exploratory sequential mixed method design. This means that a semi-structured interview (QUAL) will conduct first and based on the responses and discussion, a questionnaire (QUAN) will be developed (Creswell & Creswell, 2018). The target population for the whole study is student teachers, novice teachers, and university teachers who had experienced in practicum. I plan to use cluster sampling for the quantitative part and snowball sampling method for the qualitative part. As research tools, I will use semi-structured interviews (using photos) and questionnaires, and document analysis. I finished my pilot study in 2019 and I planned to start data collection in September 2020. However, pandemic and country situation make difficulties for collecting data from my research.

My dilemmas about methodological issues are:

1. Whether should the results of the pilot study be used to develop a questionnaire or not? Should the questionnaire be developed after the interview?
2. If I develop a questionnaire based on the pilot study, how will the questionnaires and the semi-structured interviews be linked to an exploratory sequential mixed method study?
3. Whether I use mixed-method or only interviews for data collection for my research?
4. Whether should I change the sampling method or not?

KEYWORDS: practicum, preservice teacher education, student teachers, novice teachers

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HABITUS, CAPITAL AND CONTEXT: TEACHERS' EXPERIENCES OF THE NATIONAL CHILDREN'S CHOIR

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This research is located in the National Children's Choir (NCC) which is a choral singing programme for primary school children aged 9-12 in Ireland. The programme involves classes within schools learning a common but challenging repertoire of songs. The repertoire is then performed with other schools either in regional or national concerts. The NCC programme has been running in schools for over 35 years and aim of this study is to understand the experiences of the participating teachers, alongside the meaning and significance of their participation on personal and professional level. The goal of the research is to understand conceptually the NCC as a phenomenon, where teachers' own experiences and interests are reified and replicated through the programme, and the wider implications of this in the music and teacher education sphere. Using Bourdieu's (1986) concepts of 'habitus', 'field' and 'capital', the choir can be conceptualised as a medium through which teachers pass on a certain form of choral experience that has a strong correlation to their own identity and values of music education. In some cases they themselves have been choristers and these past experiences have shaped the dispositions and actions as teachers. It can be argued that the NCC is a traditional model of music education, focused on performing and participation, congruent with some of the current thinking on the aims and purpose of music education (Green 2002; Lamont, 2011; Spruce, 2015). The "situated freedom" of the programme and its participants, alongside my own personal experience in the NCC, meant a hermeneutic phenomenological approach was best suited to frame and understand the choir (Van Manen, 1997). In trying to understand the data, I turned to philosophers such as Bourdieu and Foucault, and the ethnomusicological reflections of Nettl (1995) and Kingsbury (1998). Alongside this, concepts of communities of practice and organisational structures (Bronfenbrenner, 2005; Wenger, 1998), models of CPD and teacher learning (Kennedy, 2005) and the development of teacher identity, confidence, and motivation completed the conceptual framework (Green, 2002; Hargraves et. al, 2007; Hennessy, 2017). The study centers around six primary school teachers who have all participated in the NCC, representing a broad range of experiences and views. A number of themes can emerge depending on the theoretical framing, such as identity, power and teacher values. The problem of contextualisation is evident here in the tension between the lifeworld of the teachers, set against the purpose of primary music education. What is the learning and who is it for? Who benefits most from participating in the choir? The research challenge presented is to critically and authentically examine the phenomenon using the theories outlined above, while remaining sensitive to its tradition and place within the wider educational, historical and cultural contexts.

KEYWORDS: music; teachers; habitus; capital; identity

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STEMUNITIES: LESSON STUDY AS A VEHICLE TO FOSTER TEACHER AGENCY IN SHARED EDUCATION PARTNERSHIPS

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Lesson Study (LS) describes an approach to school-based Professional Development (PD) whereby a group of teachers collaboratively research, plan, teach, observe and reflect on a lesson with a group of learners (Lewis et al., 2006). LS has been credited with enabling teachers to develop the agency to cross institutional, interpersonal and intrapersonal boundaries of practice, thus overcoming the relative isolation and insulation they often experience in their professional practice (Akkerman & Bruining, 2016; Dudley et al., 2019). The present study aims to explore how LS, facilitated online, may enable collaborative professional learning between primary teachers involved in a Shared Education (SE) partnership thus fostering their achievement of professional agency. The study is grounded in the researcher's practice working in teacher PD with a national support service in Ireland, where they have facilitated LS with primary teachers in STEM over the last number of years. The LS intervention takes place within the unique context of an established SE partnership. SE is a peace-building contact-initiative programme which aims to enable Protestant and Catholic schools in Northern Ireland and six Border counties in the Republic of Ireland to engage in collaborative learning experiences with a curricular focus. Existing research on SE indicates limited evidence of collaborative interaction between teachers in such partnerships (Donnelly, 2010; Gallagher, 2016; Gardner, 2012). For the partnership involved in this study who have chosen a STEM curricular focus, LS may serve as a sustainable and transformative vehicle for teachers to achieve agency through fostering collaborative professional learning, sharing of knowledge between teachers in each of the schools, as well as potentially supporting the participants' membership of a professional learning community. With this in mind, the study asks: In the context of an SE partnership, to what extent (if any) does an online Lesson Study contribute to teachers' access to 1. Knowledge? 2. Collaborative expertise? 3. Professional community membership? To address these questions in a way which represents the professional voices and views of teacher participants, a qualitative parallel case study approach is adopted (Yin, 2003). Data gathering takes place over the course of one school year, with the researcher facilitating two parallel LS interventions virtually via Zoom with two groups of participating teachers during a twelve week period. Following the LS, individual semi-structured interviews will be conducted via Zoom. Thematic analysis (Braun & Clarke, 2006) of interview transcripts will be converged with discourse analysis (Jorgenson & Phillips, 2002) of meeting transcripts to uncover the influence (if any) of LS on participating teachers' achievement of agency within the context of the study. Dilemmas uncovered to date include the positionality of the researcher as sole facilitator of the LS intervention, as well as how to approach identification of agency, given its complex, contextualised and contingent nature.

KEYWORDS: Lesson Study, Teacher Agency

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ONLINE MENTOR TRAINING PROGRAM DESIGN AND IMPLEMENTATION IN A PRE-SERVICE LANGUAGE TEACHER EDUCATION CONTEXT

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Mentor teachers perform crucial roles during the practicum studies in teacher education programs (e.g. Smith & Lev-Ari, 2005; Torrez & Krebs, 2012) and the multiplicity and vitality of their roles require special preparation (e.g. Akcan & Tatar, 2010; Bullough & Draper, 2004; Hudson, 2013; Orland, 2001). However, as in most of teacher education programs around the world (Vasutova & Spilkova, 2011; Yamasaki, 2016), there is no available training for mentor teachers that specifically addresses the needs and expectations related to the practicum component of English language teacher education programs executed in Turkey. This necessity motivated a mixed-design multi-phase study that aims to design and implement an online mentor training program. The first phase aims to explore the needs and expectations of parties involved in the practicum period regarding mentoring practices during the practicum studies. To this end, the research setting was determined as the practicum context of an English language teacher education program at a state university in İstanbul, Turkey. Quantitative and qualitative data were collected from pre-service teachers, mentor teachers and university supervisors who played an active role in the completion of practicum process in 2019-2020 academic year. The quantitative data were collected through the researcher-designed questionnaire asking participants to rank eight possible mentor training themes in a list of themes (e.g. giving feedback to pre-service teachers, motivation and attitude in mentoring, mentor-supervisor communication) generated out of the review of the local studies on the problems experienced during the practicum. The qualitative data for the study came from the semi-structured interviews conducted with each group of participants who indicated their willingness to take part in answering questions about the components of practicum in need of improvement and to elaborate on their answers on the questionnaire. The mentor training themes based on the analysis of the qualitative and quantitative data informed the content of the four-module mentor training program (practicum procedures, understanding mentoring in pre-service language teacher education, effective observation in pre-service language teacher education and effective feedback in pre-service language teacher education) designed to be delivered on an online learning platform. In the second phase of the study, the possible effects of training program from the perspective of both mentor teachers and the pre-service teachers they guide will be explored through pre- and post-interviews to be conducted with both groups before and after the completion of training program. The main methodological dilemma in the study stems from its context-bound nature. It is basically designed for a specific program with the belief that it is potentially a model to adapt for similar contexts, leaving how to make the context understandable enough in question.

KEYWORDS: Mentoring, pre-service language teacher education, teacher education, mentor training

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REFLECTIVE PRE-SERVICE EDUCATION OF PRIMARY SCHOOL TEACHERS IN A PERSPECTIVE OF GLOBAL CITIZENSHIP AND SOCIAL JUSTICE

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Within a framework of an initial teacher education curriculum geared toward the preparation of future primary schoolteachers for the fostering of education for global citizenship and social justice, the need to develop reflective skills, based on the social, political and cultural context of the pedagogical action, is emphasized (Dover, 2009; Kitchen & Petrarca, 2001; Zeichner, 2014). But how is education for global citizenship and social justice within a reflective teacher education framework being promoted? In this context, we aim to present a PhD research project, based on a case study of a pre-service teacher education programme offered by a Portuguese public higher education institution, with the following main objectives: (i) To describe scenarios of primary school teacher education that aim at the development of a teacher professionalism oriented towards education for global citizenship and social justice; (ii) To identify potentialities and factors that favour and / or inhibit the development of a curriculum based on such framework; (iii) To understand the contribution of the programme for the construction of the pre-service primary schoolteachers' professionalism. From a methodological point of view, the research follows a qualitative and phenomenological approach, and the data collection will be based on documentary analysis (mainly of programme documents, such as the plan of studies, syllabus and other guidelines) and semi-structured and focus group interviews to several stakeholders involved in the teacher education programme, such as the programme coordinator, teacher educators, cooperating teachers, and student teachers. A thematic content analysis will be applied to the dataset. This project-to-be poses, for the time being, the following conceptual and methodological dilemmas: how to methodologically approach education for global citizenship, and also education for social justice, considering the theoretical vastness of such concepts, that is, should an open-minded view be adopted while analysing documents and participants' testimonies, or a narrower perspective or point of view, according to which all the data are analysed; to what extent the planned documentary analysis and the interviews should be complemented by non-participant observation of classes, as well as by the collection and analysis of the practicum reports developed by the student teachers during their teaching practicum. Our expectation is that this study may contribute to the construction of knowledge about models and practices of initial teacher education, oriented towards education for global citizenship and social justice, as well as their contribution to the construction of teaching professionalism.

KEYWORDS: pre-service teacher education; primary school; social justice; global citizenship education; case study.

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CONTENT DILEMMA AND METHODOLOGY: ABILITY TO STEER THE STUDY TOWARDS A RESEARCH-BASED KNOWLEDGE CONTENT

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The doctoral study, presented for the discussion, is not directly linked to teacher education, however, its focus alludes to some aspects of the concept. The focus of the study is immigration and education, and how these phenomena affect teacher identity and teacher roles in classrooms with immigrant learners.

The dilemma encountered so far, at the stage where the research is, is the ability for the researcher to balance content and methodology. The challenge lies in the knowledge that methodology is the whole procedure and process of conducting research, therefore, beginning from developing a sound research question, to being able to link it to the research method/s and research design, is a cumbersome process. Another area of challenge is the philosophical theoretical aspect that needs to frame the study. For this study, the researcher is battling to address challenges of diversity and multiculturalism posed by immigration in education, and how these obstacles can be addressed through teacher education programmes with pedagogy that will change their beliefs, attitudes, knowledge base and equip them with relevant roles and a new set of identity. The researcher acknowledges that there are theories that should be utilised in this regard, but the dilemma is how to create a common thread run through these aspects, to have them speak to each other, as (Burkhardt, 2013) claims; one of the issues in teacher education research, is how to make the study inspectable, that is making a connection between data and claims, systematically, Sharpes, (2020) makes a similar argument; in research, a researcher should be skilled in identifying principal methodological departures, upon which to base a system of inquiry, one being the philosophical construct. On top of the philosophical dilemma, the researcher is faced with the predicament of coining a study that will ultimately contribute or bridge the gap in literature. Burkhardt, (2013) argues that a research study should possess qualities that enable it to contribute to the body of research-based knowledge. While this strategy may be important, but it does not complete the research methodology. Further to the this, the study should ultimately make teaching and learning effective. In this case, that is where according to (Rao, 2005), an effective multicultural teacher education programmes need to be investigated. However, another challenge, would be how to balance this aspect of the research without losing focus of its objectives, because teacher education pedagogy is not its key focus.

The researcher wishes to present these challenges to other scholars, so that they can assist by suggesting some inputs, that can eradicate or minimise the dilemmas.

The presentation will utilise published empirical data on the topic.

KEYWORDS: methodology, teacher education, research, content

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WORKSHOP 6 - DILEMMAS IN COMPARATIVE RESEARCH IN TEACHER EDUCATION

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ENHANCEMENT OF THE HEALTH-EDUCATION COMPETENCIES OF THE EDUCATION STUDENTS IN RELATION TO THE EPIDEMIC/PANDEMIC EMERGENCY

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Last year was devastating regarding global health and according to the World Health Organization, most of the global health problems to be addressed in 2021, are related to the domain of infectious diseases, particularly COVID-19 (1). Considering prevention to be the most effective way to tackle the pandemic (2), it is crucial that initial education includes prevention against the most common infectious diseases, as well as the basic knowledge about them. The first objective of our research was to evaluate the level of the health-education competencies of the future teachers regarding epidemic/pandemic circumstances, while the second was to improve those competencies and skills. Research method was composed of the theoretical research approach as well as the construction of a research instrument designed as a survey questionnaire. The survey contained questions intended to examine the levels of knowledge and attitudes. The questionnaire was anonymous, completed in a paper form and used as an initial test and subsequently, after the workshop, as a retest. According to our study, students increased their knowledge on the concepts of epidemics/pandemics by 28.6%, on the potential general causes of infections by 22.35%, while knowledge on the pathogenesis of the most common infectious diseases was elevated by 21.79%. In all cases it was significant. In students' opinion they significantly deepened their understanding of the prevention ($p=0.000$) and ways of spreading ($p=0.00003$) of the most common infectious diseases. Their self-evaluation revealed that they considerably improved ($p=0.002$) the adequate health-education competencies for work with children in conditions of potential epidemic risks. In total, the knowledge on the retest was increased by 32.09% ($p=0.000$), while positive attitude towards the examined health competencies was augmented by 15.24% ($p=0.00001$). Taking into account the seriousness and global nature of some health problems, the health education is becoming a priority and should be emphasized in an initial education. Main methodological dilemmas that we have in mind and that should be discussed are related to the representation of our cohort (composed of the education students which voluntarily participated in the study during the difficult pandemic regime of the work), a range of topics addressed during the workshop activities (in cross-disciplinary manner with tendency to appeal to all participants) as well as a short term between initial test and retest. The results in our pilot study have demonstrated that curricula for teachers' education could be upgraded and updated with health-education content through the similar workshop activities, since it can dramatically improve teachers' competencies in this domain. This approach gives us a glimpse into the issue, but request deeper analysis of our research output and further investigation into the scholarly and practical scopes of the study.

KEYWORDS: infections, epidemics/pandemics, health-education competencies, teachers

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CROSS-NATIONAL COMPARATIVE RESEARCH IN A STUDY OF EARLY CHILDHOOD EDUCATION IN NIGERIA AND SOUTH AFRICA: CHALLENGES AND PROSPECT

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The relevance of Early Childhood Education (ECE) at this level cannot be over-emphasised because it forms the foundation on which all other levels of education are built. This research focused on the challenges of comparative analysis in Early Childhood Education (ECE) using Nigeria and South Africa as a case study. The purpose of this study is to discuss point the challenges encountered in cross-national comparative analysis of Early Childhood Education and the methodology in the analysis of similarities and differences. With the methodology employed in analysing the problem encountered in the comparison of the two countries Early Childhood Education, it was found out that in the data collection, using descriptive methods, the researcher finds it challenging in getting the data outside home country and making use of other alternatives such as the use of google form in getting data or finding an assistant in carrying out the administering of the instruments. Also, qualitative discourse and thematic analysis on documents and secondary source could also be a challenge. Many researchers such as Aburieme (2017), Mamman (2016), and Adeyinka & Kolade (1995) had made attempted in comparison of two countries educational system, they all posited that the methodology used has always been a challenge. This, has therefore, created a researchable gap, part of which this study intends to fill. The study found out that each country educational sector is of different ground in terms of structure, philosophy and objectives, administrative and funding. So also, there are differences and similarities in curriculum contents and historical, economic, political and cultural sources of the similarities and differences. Therefore, there is a need to explore this challenges in the comparing ECE in cross-national level in order to scholastically find possibly solutions for its better utilisation and making research in education more reliable. Hence, this study looked into comparative study of Early Childhood Education in Nigeria and South Africa and reported the challenges encountered in the course of investigation.

KEYWORDS: cross-national, comparative analysis, early childhood education

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PRE-SERVICE TEACHERS' MOTIVATIONAL DISPOSITIONS IN ENGLISH WRITING AND THE PROCESS WRITING APPROACH: THE HUNGARIAN CONTEXT

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Acquiring writing skills in the English language includes many complex cognitive activities, such as planning, formulating, structuring, and revising (Tillema, 2012), in other words, the writing processes (Al-Sawalha, 2014). Consequently, teaching writing has become a challenging skill for EFL/ESL teachers, and a difficult skill to achieve for EFL/ESL students. Motivation has a great impact on a learner's academic and professional performance (Csizér & Dörnyei, 2005; Winke, 2013), playing a key role in the success or failure of the learner's L2 learning (Dörnyei & Ushioda, 2011), including the acquisition of writing skills.

Effective and highly qualified teachers are one of the most important human resources in any education system all over the world, as teachers are regarded as the most professional agents in delivering knowledge to students, and the most responsible individuals in the teaching-learning process (Zeichner, 2014). Therefore, producing well-qualified pre-service teachers has become the most fundamental and important for teacher training institutions, and hence, improving the teacher educators' skills has become the lifeblood of producing well-qualified pre-service teachers.

These reasons inspired the researcher to explore EFL teacher educators' skills required in promoting Myanmar pre-service English teachers' motivation to improve their English writing performance through the process writing approach. However, current political situations in Myanmar prevent the researcher to follow the planned research, which was based on the mixed-methods research paradigm, which included a questionnaire survey with pre-service teachers followed by semi-structured interviews with some of the same pre-service teachers from the questionnaire survey and EFL teacher educators.

It was observed that the English teacher training programs both in Myanmar and Hungary are quite similar in public universities, and hence, these reasons brought the researcher to fulfil the primary research aim following the planned research paradigm, focusing on the Hungarian context. As the context is changed, some methodological dilemmas appear. The first dilemma is related to the sample size. The participants in the original research were expected to be 250-300 due to the large class size in Myanmar, but in Hungary, the number of expected participants is unpredictable as the class size is different. "To what extent can it affect future research findings?" The second dilemma is related to the question "How can the researcher overcome the situation in which the participants might show demotivation in responding to the questionnaire and the semi-structured interview?". Finally, the third dilemma is the researcher's positionality in interpreting data, i.e., "How can the researcher critically, correctly and precisely interpret, generalize and make assumptions about the data after analyzing, due to the cultural diversities between the researcher and the participants?"

KEYWORDS: motivation in English writing, EFL/ESL, teacher educators' skills, pre-service teachers, motivational dispositions

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EXPLORING THE DEVELOPMENT AND CHANGES IN TEACHER EDUCATION: A COMPARATIVE STUDY OF EDUCATION POLICY DOCUMENTS OF INDIA AND GEORGIA

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Despite being used widely in government documents, academic circles, and daily conversations, the word policy is open to varied interpretation. As the debates on education policies are becoming more intense, it is essential to address the increasing duality of the issue. For the purposes of the workshop on Comparative Research in Teacher Education, the authors of this abstract invite to discuss the contextualization and context-dependency of educational policies and specific cases where the impact of these raises particular relevance and interest. The current study explores and compares the teacher education programs in two developing countries, India and Georgia. An attempt has been made to present a comparative analysis of the recent policy developments in teacher education in the chosen countries. The recent education policy documents of the countries were critically analyzed to explore the trajectory of changes and reforms. The study has tried to explore critical factors, such as recent developments in pedagogy and indication towards curriculum change in detail. The research is set within the following boundaries for each case – economic, demographic, ideological, national, individualistic. The research also addresses the rising issue of lacking trust in political decision-making. Since literature discusses the increased cross-national application of education policy, the question arises – how to reach the necessary balance between contextualized policy application and attempts to achieve globally-approved arrangements? Another dilemma faced by the authors concerns the attempts to avoid biases while focusing on the policy documents native to their contexts and the attempts to isolate these from researchers' prejudices, values, and preconceptions. The study deals with only secondary data in the form of policy documents. The data analysis techniques include thematic and content analysis. The results suggest a common factor of updating the training program and pedagogy in both countries, but the practical impact can be measured by carrying further research in the area.

KEYWORDS: teacher education, policy development, thematic analysis, content analysis

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COMPARATIVE PEDAGOGY IN TEACHER TRAINING IN UKRAINE: METHODOLOGICAL BASES

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Brief and simplified description of your research project: Modernization of the national pedagogical education, along with its entry into the European educational space actualizes foreign education experience as well as the comparative education in Ukraine intensifying the dynamic development of its methodological bases and infrastructure. The professionalization is characterized both by the comparative education institutionalization (institutional structure formation) and the development of its methodology. The institutionalization comprises the comparative education research centres formation; launching the “Comparative pedagogy” academic course for the future teachers in the Ukrainian universities (Lokshyna, 2016: 7-8).

It is obvious that “comparative pedagogy”, as an area of integrated comparative study of educational processes on different markers at interdisciplinary and multidisciplinary levels, does not use pedagogical criteria only, but andragogic, economical, legislative, sociological, historical ones as well. That explains the reason for it not to be considered as a scientific field of pedagogy or its subdivision. In fact, this field of research stands on a par with pedagogy being a part of a metascience, which has the object of the whole education system with relevant processes at different levels, educational institutions, factors, dominant and trends in its development, resources, including human capital, and other elements together with the mechanisms of interaction between them (Lokshyna, 2016: 3-4).

Research aims and goals: the aim of our research project is to defined the methodological bases of comparative pedagogy as academic course in teacher training in Ukraine.

Methods: With the purpose of investigating this problem we have used a complex of the following theoretical methods: content-analysis, comparison, systematization of pedagogical sources et al.

Methodological considerations, dilemmas. In comparative pedagogical studies the researchers distinguish general, special and specific dimensions. The general one they refers to the methodological foundations on which each educational research is based. The Special one refers to the methodology of the comparative study. Specific or individual, in their opinion, can be attributed to the phenomenon under study, which can reflect various branches of educational science and is the subject of research (Sysoieva, 2015: 45).The present stage of comparative pedagogy under globalization transformations is characterized as the period of the national comparative education professionalization. The professionalization is characterized both by the comparative education institutionalization (institutional structure formation) and the development of its methodology. The institutionalization comprises the comparative education research centres formation; launching the “Comparative pedagogy” academic course for the future teachers in Ukrainian universities.

KEYWORDS: comparative pedagogy as academic course, comparative educational research, methodological bases, Ukrainian teacher training

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THE VALUE OF MUSIC EDUCATION IN IRISH DEIS PRIMARY SCHOOLS: A COMPARATIVE STUDY

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Context: In 2005, the DES (Department of Education and Science) set up the DEIS programme (Delivering Equality of Opportunity in Schools). This initiative was set up in order to address the educational needs of children from disadvantaged communities. Its aim was to improve the learning outcomes and experiences of these children. Schools with DEIS status receive additional resources. The impact of DEIS is measured by conducting ongoing evaluations of different aspects of the programme. Curricular evaluations to date have been undertaken on literacy and numeracy attainment in these schools (Burns, 2015). In 2012, the DES recommended that all schools increase time spent on literacy and numeracy. There is concern among many educators that this time will be taken from the other non-core subjects. The Society for Music in Ireland (SMEI) states that ‘any reduction in existing provision for music and the arts will deny all children access to a holistic education, and that the children most affected by any such change would be those already in marginalised communities’ (SMEI, 2011, p. 2). This statement posits that children from low socioeconomic status (SES) backgrounds may not have the same access to extra-curricular activities in arts education that children from higher socioeconomic status backgrounds have. Therefore, it is important that DEIS schools are placing a high value on arts education. This research will specifically examine the value placed on music education in DEIS schools, and whether the educational needs of children in DEIS schools are being addressed in its current model. Rationale Research has shown that children from low SES backgrounds attending DEIS schools quite often have emotional and psychological needs which carry through with them into later life (Weir, Kavanagh & Moran, 2017). There is also significant evidence that children benefit greatly through engaging in arts projects, both academically and socially (Hallam, 2010). Positive experiences within the education system also encourage children to stay in school longer, which is one of the aims of the DEIS programme (Department of Education and Science, 2017).

Research question: What is the value of music education in Irish DEIS primary schools?

Methods and revised methods: in light of COVID-19 A mixed methods approach across five DEIS and non-DEIS schools provided the data for the study. Questionnaires and interviews were obtained from the schools. COVID-19 did not change the format of the questionnaires but did require additional considerations in order to undertake interviews remotely.

Dilemmas related to methodological issues: The researcher was unable to carry out face to face interviews following the outbreak of COVID-19, which may have given richer information for the study. Visiting the schools in person would most likely have changed the response rate, however the researcher was still able to obtain adequate data in order to complete the research.

KEYWORDS: value of music education in primary and elementary schools

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A CASE STUDY RESEARCH DESIGN: EXAMINING AGENCY OF INSTRUCTORS AND STUDENTS TEACHING AND LEARNING ACTIVITIES IN A MOOC

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The project focuses on examining collaborative teaching and learning practices in a digital learning environment, especially in a massive open online course (MOOC) context. The overarching purpose of the project is to examine how instructors and students enact their agency in teaching and learning activities in the MOOC entitled "ICTPED MOOC" [Pedagogical Information Technology (ICTPED) Massive Open Online Course (MOOC)] offered by a Norwegian University College aiming to develop professional digital competence in pre-service and in-service teachers. The project has three specific research objectives a. To examine how the instructors facilitate students' learning and development of professional digital competence in ICTPED MOOC. b. To examine how the students learn by engaging in collaborative learning meetings in the MOOC. c. To examine how agency of instructors and students unfold in online synchronous and asynchronous teaching and learning activities. To study, develop and present an in-depth understanding of a phenomenon or case by using multiple sources of information in real-life, contemporary context within a bounded system is a hallmark of case study research design (Creswell & Poth, 2018; Merriam & Tisdell, 2016; Yin, 2018). Instructors' facilitation of students' learning (synchronous and asynchronous) and students' engagement in collaborative activities in the ICTPED MOOC are the two prominent cases of study in this project. ICTPED MOOC can be understood as a bounded system where instructors and students engage in different modes of teaching and learning practices to understand the course content. The six steps for conducting the case study research design identified by Creswell & Poth (2018) will be followed. The collective case design, which deals with multiple cases in one study (Stake, 1995), will be followed. The first case examines how instructors facilitate students' learning in online guidance meetings (Eight meetings) between the course instructors and the students. The observed meetings were filmed and analyzed by the method of interaction analysis. The second case examines how students engaged in learning in online collaborative meetings (five meetings) between students and students. The observed meetings were filmed and analyzed by the method of interaction analysis. The third case examines how instructors and students intervene to address students' learning needs in Canvas and Facebook discussion forums of the ICTPEDMOOC. Discussion forum data and post-course surveys were analyzed by thematic analysis and epistemic network analysis. Finally studied cases will be synthesized to develop an understanding of how instructors' and students' agency in online teaching and learning comes into play while engaging in epistemic practices aiming to address the learning needs of the students. The main dilemmas to be addressed are how cases can be combined to draw an integrative perspective about online pedagogical practices.

KEYWORDS: Case study, MOOC, online pedagogy

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METHODS OF APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE NETWORK OF INTELLECTUAL SCHOOLS IN TEACHING MATHEMATICS OF ECONOMIC MODELS

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Esengaly SMAGULOV, Zhetysu State University

The research is devoted to the creation of an interactive electronic textbook on economics using mathematical modelling. The author suggests introducing students to new mathematical concepts on the example of an economic model by using an electronic textbook on the principle of an organized press conference, where the student will play the role of a media representative, and the bot-textbook is the organizer of a press conference. The lecture is based on the principle of decomposition of the material "question-answer". For the material, it is assumed that the student will ask questions depending on the assimilation of the lecture material. And our electronic textbook will know in advance what these questions are - on the principle of a press conference. The article also defines the concept of "Bot-textbook" - a complex set of programs that uses its neural network based on game theory, where the neural interface builds its scenario model of a cyclically repeated educational process, depending on the effectiveness of learning material by students, as well as containing interactive blocks of knowledge testing, updated from a centralized source. The urgency of creating this resource is caused by the introduction of distance education during the declared quarantine in the Republic of Kazakhstan in connection with the coronavirus pandemic, as well as the fact that the government of the country is unable to reach all schoolchildren for online lessons. The proposed research in this area will also help to solve the problem of teaching children with disabilities.

KEYWORDS: interactive electronic textbook, bot textbook, distance learning, mathematics for economists, press conference, multi-order explanations

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ABSTRACTS BY FIRST AUTHOR NAMES

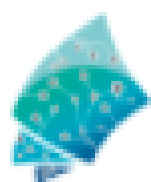
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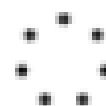
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