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INTRODUCTION

From August 27 to 30, 2023's ATEE Annual Conference, with the topic "Teacher Education on the Move," brought together educators and academics from all around the world in Budapest, Hungary. With 226 attendees from 30 different nations, the conference provided a lively forum for exchanging ideas, encouraging teamwork, and talking about the most recent advancements in teacher education while reflecting the rapid changes surrounding the field. The three-day event had a varied program that included multiple parallel and poster sessions, RDC meetings, workshops, and motivational keynote addresses. A warm, relaxed, and vibrant atmosphere surrounded the attendees, creating a setting that was ideal for deep conversations and networking possibilities.

Important Elements of the Conference Keynote Speeches

Experts in teacher education gave three keynote speeches at the conference. Jaap van Lakerveld addressed various ways in which teachers are on the move and attempted to sketch perspectives for the future. Brad Olsen elaborated on teaching quality nowadays and the perspectives for development in global and local arenas. Helga Dorner advocated the importance of mentoring novice teachers and ways of improving collaboration in professional communities, reflecting on the ongoing changes affecting education. These talks provided insightful information, addressed a broad range of subjects, and established the framework for the conversations that followed.

Meetings of the Research and Development Communities (RDC)

Thirty RDC sessions were held at the conference, where scholars and educators' discussions centered on many facets of teacher education. These groups were crucial in influencing conference conversation and encouraging cooperation among professionals who had similar values.

Poster and Parallel Sessions

The conference's 43 concurrent parallel and poster sessions, which numbered 177, became its focal point. The variety and diversity of modern teacher education were made evident by the scope and depth of issues discussed in these sessions. Participants got the chance to learn about cutting-edge studies, creative approaches, and new developments in the field.

The ATE Annual Meeting's emphasis on active involvement was one of its most noteworthy aspects. With equal engagement from teachers and participants, the workshops were designed and organized with the goal of creating a dynamic and inclusive atmosphere. scheduling and expectations for meetings. Parallel session presenters were given guidelines

outlining a structured approach that included a 10-minute lecture followed by a Q&A period. Short yet thought-provoking presentations were encouraged, and presenters and stakeholders were more likely to participate in this style.

Ten to twelve posters every session were given ten minutes to discuss their findings, after which there was a question-and-answer period. The poster presentations' visual format introduced a dynamic aspect that improved both the presenters' and the audience' overall experience.

Interactive Sessions & Workshops

The interactive sessions (Newcomers' meeting, Book Club) and the Workshop "How to write articles for the EJTE" gave participants dynamic, hands-on learning experiences that deepened their understanding of ATEE's organization, particular subjects and tactics. These classes advanced the entire learning process by adding practical elements to the academic talks. Even though the conference is over, there will be fascinating post-conference developments to anticipate, including:

The Book of Proceedings

A specialist team's meticulous evaluation and editing of content supplied was meant to enhance the book's quality, coherence, adherence to academic standards, and clarity while also helping to disseminate knowledge more effectively and restoring any lost lucidity. It was intended to classify the topics of articles into relevant categories, categorize the data according to thematic content, and display the data coherently after carrying out the required research and collecting the data from the participants.

The requirements were provided to the participants, and 20 articles were submitted that were classified under the following sub-themes of the conference and proofread according to the American Psychological Association (APA) 7th Edition Reference Guidelines:

- Educational responses to societal challenges from the perspectives of teacher education;
- Environmental, health and sustainability education;
- Higher education and teacher education;
- Inclusion, equity and diversity in teacher education;
- Subject- specific didactic concerns in teacher education (e.g., regarding science, mathematics, foreign languages, entrepreneurship, digital technologies);
- Teacher education and new technologies;
- Teacher education curricula;
- Teacher education theories and methods;
- Teachers' and teacher educators' learning and professional development;
- Technical and vocational education.

In summary

In conclusion, educators and researchers from all around the world found the ATEE Annual Conference 2023 to be a stimulating and rewarding event. The forum's focus on diversity, international collaboration, and active involvement set the tone for its contribution to the global conversation on teacher education across borders. It was understood via the guidelines for informant review that the meeting would run smoothly and successfully, fostering an atmosphere that encouraged learning, sharing, and cooperation. By the time the seminars finished, their impact had gone beyond the actual meeting; papers and presentations promised to build on the information that had been acquired.

The editors

**EDUCATIONAL RESPONSES TO SOCIETAL
CHALLENGES FROM THE PERSPECTIVES OF
TEACHER EDUCATION**

1. LEARNING MUSIC AS A MEANS OF SOCIAL ADVANCEMENT

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Abstract

In the first decades of the 21st century, significant attention was directed towards cumulatively disadvantaged and disadvantaged children. The purpose of these researches is, on the one hand, to learn about the socioeconomic status of these students, and on the other hand, to find solutions to their difficulties and problems (Fisher et al. 2020; Hernandez et al. 2021). In my research, I study the possibilities of these students in a specific approach, by examining the opportunities offered by learning the arts. According to literature (L. Ritók, 2010; Román-Caballero et al, 2022; Winston et al, 2022), dealing with the arts can greatly help the development and success of disadvantaged children through transfer effects.

My research focuses on schools and programmes that pay special attention to talent development for disadvantaged children through music. This includes the Symphony Program, which is an adaptation of the El Sistema Program in Venezuela. The focus of my research is to explore the factors behind the success of the Symphony Programme, both from a professional and a human perspective. In this paper, I present the results of analyses based on interviews with mentors and music teachers who play a central role in the Symphony Programme.

For my study, I conducted qualitative, semi-structured interviews with mentors and teachers. My results show that both an understanding and attentive environment as well as a special attitude and treatment are decisive factors in the success of institutions and children. In addition, the special methodology is also vital in the development of children.

Keywords: *disadvantaged status, music learning, Symphony Program, El Sistema Program*

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Introduction

At the beginning of the 21st century, the number of disadvantaged and severely disadvantaged children in Hungary increased significantly. Learning the arts can help them and create opportunities for them (Román-Caballero et al, 2022; Winston et al, 2022). There are many studies on the importance of transfer effects and improved performance, behaviour and inclusion of children (Hallam, 2010; Szűcs, 2023). In Hungary, primary art schools provide opportunities to learn the arts. Since 2005, children with disadvantaged, multiply disadvantaged and special educational needs can study free of charge in these institutions. Yet their parents often do not dare to enrol their children in primary art schools because they have had many bad experiences in primary schools and lack confidence in this type of institution. Thus, precisely those children are not getting the developmental benefits of learning music and the arts who need it the most.

At the same time, institutions and programmes have emerged in Hungary, specifically dedicated to the talent development of disadvantaged children, which are successfully working with these children. These include the Snétberger Music Talent Centre, the Rajkó-Talentum Primary and Secondary Art School and the Symphony Programme (the Hungarian equivalent of El Sistema). The question arises as to how they can help these children, who have so many problems in primary school, to succeed. What is behind their success?

In this paper, I aim to present the results mapped in the Symphony Programme, which provide answers to the previous questions.

The idea for the Symphony Programme (2014) originated in Venezuela, where it is known as El Sistema. Since El Sistema's founding in Venezuela in 1975, El Sistema and El Sistema-inspired programmes have spread to many countries around the world, and the rate of expansion has increased rapidly since the beginning of the 21st century. "Play and Fight" is the motto of the organisation, expressing the determination and commitment of its members. Today, in more than 80 countries around the world, they are trying to adapt it to local conditions and different social problems. With the exception of Antarctica, hundreds of programmes now populate every continent of the world, serving an estimated one million children (Verein zur Förderung Sistema-inspirierter Musikvermittlung in Europa, 2024).

In the case of the Hungarian Symphony Programme, it is primarily a social programme, in which music is a means of creating opportunities, a way out. The target group is disadvantaged children living in difficult circumstances who are considered "problem" pupils at school. The main objectives of the programme are to reduce early school leaving and early school dropout and to help children succeed in school. The Symphony Programme takes a systems approach, believing that children's school careers cannot be understood in isolation, and that it is therefore necessary to understand the family, local social, welfare and health institutional framework surrounding children. Therefore, they also support the children and their families involved through social and community development activities (career guidance and prevention sessions, programmes involving parents, teachers and other professionals). They aim to broaden their horizons and teach them that setting goals is the way forward. They do this by being given role models and providing experiences (excursions, concert and theatre visits, and games together) to help them to get to know the world around them better.

At the heart of the Symphony Programme are group music sessions that use an experiential approach to develop children's intellectual, social and emotional skills. In the orchestra, children find an inclusive, loving atmosphere and a community where they can achieve success by helping each other rather than rivalry. The workshop work in the programme teaches participants perseverance, regularity and the struggle for goals, and the experience of success strengthens their self-esteem, thus reinforcing the very competencies that are essential for good school performance and future well-being (Magyar Máltai Szeretetszolgálat, 2021)

In 2022, the Catching-up Settlements programme was launched in Hungary, covering the 300 poorest settlements. Currently, the Symphony Programme is operating in cooperation with the Maltese Relief Service, continuously expanding the number of settlements joining the programme.

Methods

For my research, I chose a qualitative method because of the sensitivity of the social group under study, but also because it allowed me to explore deeper connections. I conducted semi-structured interviews with all 8 mentors and music teachers in the spring of 2023, with a full range of interviews. To objectively analyse the responses, I used MAXQDA qualitative data analysis software, which allowed me to quantify the data.

The most important aspect of the analysis was text-focused, thus fulfilling the principle of non-interference studies (Babbie, 1986; Sántha, 2015). The content analysis of the interviews was aimed at filtering out the number of words and codes, thus I preferred a structural approach. Interpretative type analysis was used to identify the main codes and conceptual categories. I used the combined logic method for coding categories. During the coding process, I first used a deductive method, whereby the data extracted from the text corpus were assigned to the pre-designed main codes. The main codes were based on the interview questions (programme, lessons, children, programme effects). In the next step, I used the inductive method in a data-driven way, during which I created additional main codes and subcodes (success, mentors) (Sántha, 2022).

The internal reliability of the study is based on the reliability of the coding, which also allows for the overall reliability of the analysis (Sántha, 2012). To ensure the reliability of the coding process, I used the intra-coding technique (Dafinoiu and Lungu, 2003). In the first round $i = 543$ and in the second round $j = 553$ codes were generated. In the two coding rounds, $n = 530$ was the number of identical coding situations. Based on the formula of the intra-coding method, the coding reliability index $km = 0.967$.

My research questions were:

1. *How can they reach children?*
2. *How can they keep them in the system?*
3. *What methodology do they use?*
4. *How can they lead children to success?*

Results

The coding resulted in a total of 553 codes and five main codes emerged: the Symphony Programme, lessons, children, the impact of the Symphony Programme, and success. Their distribution is shown in the first figure.

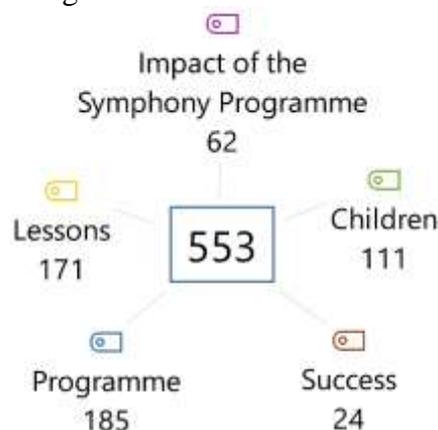


Figure 1: Distribution of master codes

Figure 2 shows the Symphony Programme, Figure 3 the hours and Figure 4 the subcodes and their distribution within the children's master codes.

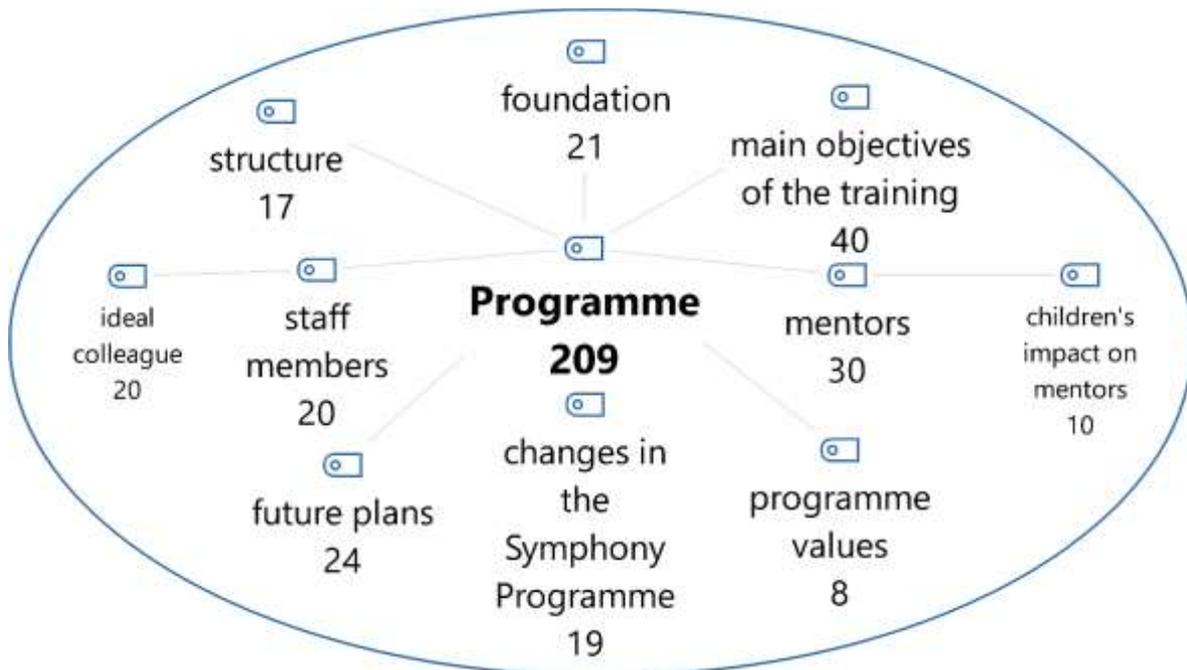


Figure 2: Distribution of subcodes of the Symphony Programme

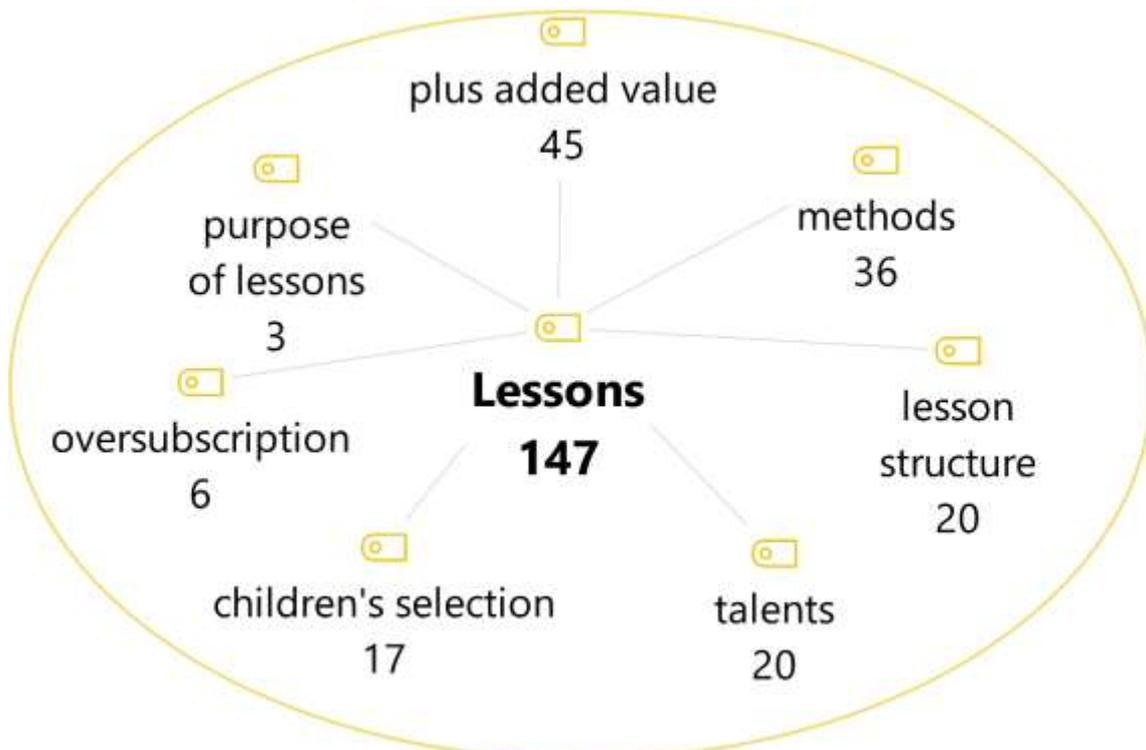


Figure 3: Distribution of subcodes of the Symphony Programme lessons

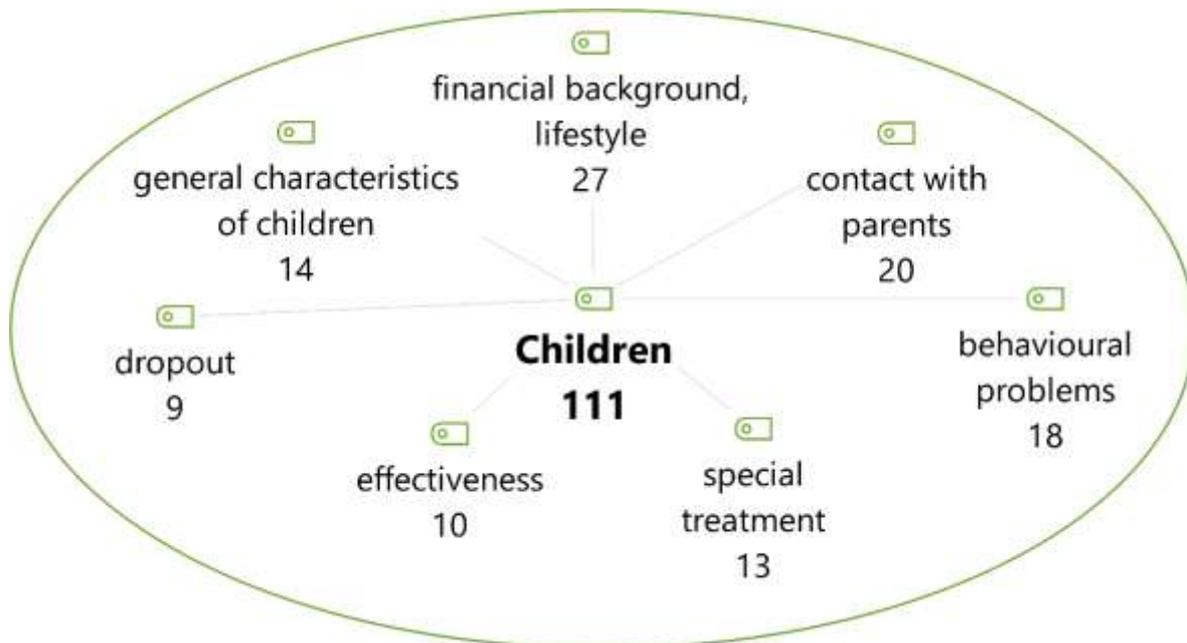


Figure 4: Distribution of subcodes of information on children

Discussion

The first figure shows the five main codes. Most of the codes (209 codes) are for the Symphony Programme, followed by 147 codes for lessons and 111 codes for children. Significantly fewer, 62 codes were formed for the effects of the Symphony Programme and 24 codes for success. For the latter two main codes, no subcodes were formed.

Most of the codes for the Symphony Programme were for the main purpose of the training (40) and for mentors (30). This is not surprising as mentors are an important driving force behind the programme. They are responsible for a region of Hungary and are the link between the management, music teachers and local professionals. They all felt it was vital to outline as much as possible the main objectives of the programme. *"The main aim of the programme is community development and a great opportunity for children. What I think is the main purpose of the programme is to believe in myself, to have a vision and to believe that I can change, that there is a tiny bit better than what is around me if I do. And opening up the world, turning the world's eyes, helping ... having a little vision and self-worth, I think that's the most important thing."*

Almost the same number of codes emerged on future plans (24), the establishment of the Symphony Programme (21), its structure (17), staff (20), ideal staff (20) and changes in the programme (19). *"Essentially, I think El Sistema inspired the creation of this programme, to try to find out here in Hungary, in the segregated areas with disadvantaged children, in these municipalities, what is it that we can give? What path could we pave for them with this programme? Essentially, because it was a very well-functioning programme there. ... I think it was immediately apparent that music is a path that could work."*

The structure of the Symphony Programme is currently in transition. In the original structure, the Programme Manager is responsible for the overall running of the programme and

the Artistic Director is responsible for the musical part of the programme. Regional mentors and coordinators will bring together the issues of each region. The music teachers will carry out their tasks in each municipality. At present, the mentors have been replaced by band leaders, with the central aim of creating local, regional and national bands. The tasks of the band leaders also include the administrative duties of coordinators and mentoring of music teachers. It is considered important to strengthen the social line by involving community-building and social workers.

In relation to the staff, it was interesting to observe that a sub-code of the ideal staff member emerged from the mentors' interviews. Of course, the musical background is important, but the personality of the teacher is also outstanding. They listed attributes that are most necessary to work successfully with children. For example, two-way communication, empathy, flexibility, ability to teach several instruments, enthusiasm, love for children, role model for children, high sense of responsibility, finding common ground with children, acceptance, humility, inspiring students to be better than him. She is a person who is always there for the children, often outside working hours. Overall, this job requires a high level of commitment and an open, inclusive personality.

The impact of children on mentors (10) and the value system of the programme (8) had the lowest number of codes related to this main code. Reciprocal mentoring (Harvey et al, 2009) is also observed here in the Symphony Programme. Not only do mentors give to children, but children also shape and develop mentors and teachers. They have become more honest, open, flexible and accepting. Nevertheless, they are often astonished to hear the children's accounts of their lives. We must not forget to process these together.

Future plans (24) revealed a wealth of opportunities to give children even more opportunities. Broadening the age range of the programme, following their careers from kindergarten to employment. More ways for students to grow and have the opportunity to continue making music after eighth grade graduation, and to give those who are preparing for a career in music all the help and support they need to achieve their goals. The dynamic development of the Symphony Programme is a constant source of inspiration for the staff to keep expanding opportunities.

In terms of hours, the codes for added value (45) and methods (36) stand out by far. The methodology used in the Symphony Programme is essential; as it is precisely because of this that rapid success is achieved. It is essential to retain children. I will write about this in more detail later, because one of my research questions is methodology.

As this programme is primarily a social programme in which music is a means to an end, it is not surprising that there is a strong emphasis on highlighting the added value beyond music. Playing games and making music together is a good way of building trust, opening children up and starting supportive and constructive conversations. *"We shape the world view, we give feedback, we hold up a mirror, we develop self-esteem and self-awareness."* They regularly ask for advice on issues such as further education and choosing a partner. Changing mindsets is very important. You know you are valuable, you can achieve your goals. *"They don't think, 'Oh, when are we going to graduate, and then I can go, and then I want to have a baby. Not that she'll want to be in eighth grade so she can go on to college."* Through the teaching of reflection and empathy, sensitisation to others takes place. Listening and adapting to others is also essential for playing together in an orchestra. The Symphony is often referred

to as a big family when it comes to a sense of community. By practising together regularly, they learn that the energy invested pays off, reaps rewards and is worth engaging with not only in instrumental playing, but also in other areas of school and life. They also have the opportunity to preserve and learn about their own culture. The children are given role models, there are more Roma mentors and music teachers working in the system and they are seen as role models by the children. The mentors and music teachers are very attentive to love and acceptance and this is something that the pupils need very much from the music teacher, who is a *"godfather, friend, soul mate, helper"* in their eyes. The world opens up to them through travel. They can get to know each other at camps and on excursions, and thus gain valuable contacts through symphony students from other municipalities. It is important for them to *"see that they are part of a bigger web and that they are getting to know each other, that they are really making friends."*

Codes have been developed for the selection of talents (20) and children (17) for the lessons (20). There were significantly fewer thoughts on oversubscription (6) and the purpose of the lesson (3).

The Symphony Programme aims to give every child who wants to try music learning the opportunity to do so. The only obstacle is the limited number of instruments available, but the number of instruments is constantly growing. In the course of the lessons, it is important to emphasise the playful, direct tone and the initiation of conversations that are an integral part of the beginning of the lessons. The instrumental lessons take the form of group lessons, with 2-4 children of a similar cognitive and technical level. It is also important to end the lesson on a positive note so that the children leave with good feelings. Talented children are given the opportunity to apply to the Snétberger Music Talent Centre and are also supported in their studies at music school. There is also the possibility to study at a music conservatory, so this is a great opportunity for pupils to get a head start.

Statements related to the children's financial background and lifestyle (27) dominated, as the mentor music teachers reported shocking circumstances during the interviews. Overall, there is a wide range of extremes in the students' circumstances and lifestyles. Some live in a normal home, with one or both parents working. At the same time, there is a high proportion of children living in poor, dirty, uncomfortable conditions, where parents do not work and crime is common. Often there are many people living in the house, so children do not have a quiet place of their own to study and rest.

Parental contact (20) and behavioural problems (18) are also prominent among the subcodes. As parental permission and consent are required for children to attend classes and performances, parental contact is essential. Family visits are frequent so that they can get closer to the parents and develop a relationship of trust. In this group of children, from which the Symphony Programme draws, we encounter a remarkable number of behavioural offences, due to their background, circumstances and habits. Fighting, falling back, tantrums, insolence with the teacher, truancy, and not coming to the performance; these are problems that occur regularly.

A similar number of codes were generated on the general characteristics of children (14), their special needs (13), their achievement (10) and dropout (9). The family is important for children, whether good or bad things happen to them there. They experience a lot of failure, often saying *"they can't do it anyway, oh let's leave it"* because they have no experience of

learning. *"They don't have the sense of commitment that I've enrolled now and I'm going to go all year."* They haven't learned to struggle: *"After the second failure, they'll drop it, stay at home, start a family, or have a child, or whatever."* Accordingly, dropout is a perennial problem for these students.

One of the main aims of the Symphony Programme is precisely to reduce dropouts. A lot is done by mentors and music teachers to keep students in school. *"It's also important for us that the child doesn't drop out of school, because he or she is going to music. So that he doesn't fail in grammar. ... We are here to prevent dropouts, so I think we have to work very closely with the teachers."* Sometimes, they try to solve the problem in a very special way: *"It was a good occasion to introduce ourselves, to get to know each other, and then we did it several times. For example, if a child drops out, a musical family visit can make a big difference."* Often, the fact that a significant proportion of pupils in these municipalities belong to the special needs group also causes learning difficulties. According to the interviewees, between 30 and 100% of children have attention deficit, SNI (special educational needs), and/or BTMN (difficulties with integration, learning and behaviour), with the proportion varying from one municipality to another. This can also be a challenge in relation to music learning, although music teachers say that *"somehow it does not correlate with how they are doing in music. Obviously, someone who has difficulty understanding fractions, reading, or getting the basic information in, is harder to work with, but the behavioural disorder, this special educational need, it's a problem if they're very unmotivated and want to tear the session apart, but otherwise it's not a problem."* In addition, another type of difficulty appears in these pupils. *"For example, I have groups where I don't teach music specifically, but rather just develop. Because the poor one is so behind, he has such problems that he can't press a key or a string, he's so stiff, and by the way, that's the case with a lot of kids. ... Of course, it's not just a physical problem, it's a psychological problem. And then we try to integrate these children into the orchestra, but not always. It doesn't always work."* The performance of these students is very variable, ranging from excelling to failing. The high average shows a mediocre result. Truancy is also a common obstacle to academic success and a common phenomenon among them. The Symphony Programme is a good safety net in this respect. Several children said that they come to school to play music so that they can go to instrumental lessons in the afternoon. For this reason, they try to achieve the best results possible, by doing their homework earlier so that they can attend the session.

The impact of the Symphony Programme (62) and the successes reported by mentors (24) are of particular importance for the research, as they are the yardsticks of the programme. Through them we can see the changes that have been initiated in these children. The dimensions of success will be discussed in more detail later, as they were in one of my research questions. By the impact of the Symphony Programme, I mean the changes that can be observed in the lives of the children who participate in the programme. Obviously, these changes cannot be attributed solely to the impact of the programme, but they are certainly influenced by it. These changes can be observed in different dimensions, such as behaviour, attitudes, academic achievement, cooperation, and emotional intelligence.

I mentioned earlier that there are a lot of complaints about their behaviour. Mentors and music teachers regularly consult class teachers and school leaders about this. There is a

noticeable change in their behaviour in music lessons on the one hand, and in class on the other. Here are two examples: *"next year, when I meet that really rowdy kid, he is calmer and things are different afterwards"* and *"just to blow through those three songs, the kid stood quietly for an hour and a half at the ceremony."* It is also typical that *"there are so many children who are not open to the world even a little bit, because they are so closed, there are so many problems at home that they are completely closed in. We've got to the point where they are now starting to open up to everyone. They smile more, they're not so wild."* Several mentors and music teachers have found that *"the children are also talking to each other more, and are more accepting of each other, helping each other. It's not even a programme, it's a big family. The older ones are role models for the younger ones ... there's a sense of togetherness in the classroom as well."* The question arises as to what is causing this change. According to the mentors, *"... the influence of the band. They have to look out for each other so much that they can't help but develop in this. They learn to listen to each other a little bit, and to be patient a little bit. ... We have the routine of going, unfamiliar people, unfamiliar places, and it's not that I close down, it's that the kids open up, they're more direct."*

Working together as an orchestra has also become a priority, which has strengthened the sense of togetherness. *"We had an orchestra, we had a repertoire, and we got invited to a lot of places, and then it meant a lot of community occasions for us, all of which were super well done."*

Mentors and music teachers have also observed the development of emotional intelligence in children. In their opinion, *"music is such a super emotional communication, ... it has a very good impact on their emotional world."*

The changes are noticed not only by mentor music teachers, but also *"by class teachers and principals who point out that the Symphony kids have a much better GPA, that they listen to their teachers much more. They also learn much better, because music moves many, many things in children."*

The impact of circumstances on academic performance can often be observed, and learning music can also help. *"We went to a family's house, and it was tamped down, it was very cold, and the babies were sitting on arms and not crawling. And babies who don't crawl don't develop fine motor skills. And if you don't develop fine motor skills, you won't be able to play the violin like that. And then the effect of playing the violin is bound to change the writing and the attention."* There is also an observable change in the motivation of the students as a result of the Symphony Programme. They go to school regularly, they listen in class again, *"and you can influence them in a way that makes learning make sense. ... A lot of the kids, they talk about, when are we going to go to a concert, how can we go to a concert? Okay, I'll go to class because I have to study."* As a result of this change, *"there are more and more Symphony graduates, and some are going to university."*

The change in attitude can be observed in several areas. On the one hand, it does not want to dismantle its environment but to improve it in some way. On the other hand, children of Roma and non-Roma origin are opening up to each other, *"talking, singing and playing music together. These are the experiences that make them open up to each other."* Thirdly, it is observed that *"they put themselves in a situation ... when they give themselves motivation, give themselves a goal, the children's attitude to life changes."* They become more persistent, their perseverance and self-esteem are strengthened. Interviewees believe that *"the band gives*

the kids that extra something to change their mindset because they get out of that settlement, we take them to gigs all over the place, and they get a lot of stimuli that basically change their mindset. Their communication develops and that affects everything ... if you learn the behavioural norms that you have to follow in an orchestra, you'll be able to apply them everywhere in life. And developing self-awareness is very, very important." Band is an attraction that keeps students coming back after eighth grade. In addition, "more and more kids want to get out of the village and go to high school," which is a huge achievement for these students.

Feedback on these changes is also received from parents, and it is often observed that "there is a complete turnaround in the teacher's view of the child. ... Something clicks in the teachers' minds that these children are not actually helpless or untalented, but that they just need to be caught by other means. I think we can sensitise and motivate a lot of actors."

Summary

Based on the analysis of the interviews, I have formulated the following answers to my research questions. In the Symphony Programme, children are approached through recruitment both in schools and at the points of presence. The programme takes the opportunity to them. Children are selected indiscriminately; everyone gets a chance to learn music. Dropout and natural selection are also observed here.

The tools of retention include, on the one hand, a specific methodology that gives children a quick sense of achievement. Another important tool is the use of discussions and games to open children up. The third pillar of the retention tools is the orchestral game, which is an outstanding social experience for all pupils.

It is worth mentioning the specific methodology. This includes the use of coloured sheet music, coloured strings, and simple rhythms. Groups are formed according to the level of development, but there is scope for crossover between groups. It is great that everyone in the orchestra gets a chance to play from the simplest to the most complex parts, so everyone can be part of the experience and success of making music together.

The path to success is mapped out along several dimensions. The most visible are concerts and invitations abroad. The pomp, lights, applause and recognition are unforgettable for children. But this is only the crowning glory of the Symphony Programme's many impacts. Adaptation is key when making music together, when playing in the orchestra, acceptance of others, Roma and non-Roma alike, and when travelling together. Social behaviour is also important during the trips. It also polishes their behaviour at school. This helps them to learn the rules of social interaction and thus to integrate into society in the future. It also helps their personal development by teaching them to listen to others, to learn about themselves, to experience performing and to increase their self-confidence. The confidence they have in their teachers and mentors is essential for this. This enables them to open up and share their problems and difficulties. This relationship of trust is built step by step with great care and attention by the professionals of the Symphony Programme. Another manifestation of success is learning effectiveness. Since music learning develops attention, memory, logic through transfer effects, all of these can be put to good use in learning any subject. In order to reduce dropouts, all staff and material conditions are implemented, students are given individual development plans and

motivation through scholarships. Great attention is also paid to overcoming socio-cultural disadvantages, which can also be a measure of success. The Symphony Programme pays particular attention to life education and to promoting development. Not only the children but also their families are involved in these events and programmes, in which it is important to involve parents and support families. The work of mentors and support institutions is essential to make this happen. A holistic approach and regular monitoring are also key to success.

The analysis of the interviews revealed the human, methodological and technical factors behind the success of the Symphony Programme, the combination of which enables disadvantaged and multiply disadvantaged children to develop their abilities, to improve their performance in and out of school, to increase their social and cultural capital and to raise their social status. It would be particularly important to develop more programmes and social initiatives of this kind in the future, so that these children can find their place in society and become valued members of it.

References

- Babbie, E. R. (1986). *The practice of social research* (4th ed). Wadsworth Pub. Co.
- Dafinoiu, I. & Lungu, O. (2003). *Research Methods in the Social Sciences*. Peter Lang.
- Fischer, Ch., Fishman, B., Levy, A. J., Eisenkraft, A., Dede, Ch., Lawrenz, F., Jia, Y., Kook, J. F., Frumin, K. & McCoy, A. (2020). When Do Students in Low-SES Schools Perform Better-Than-Expected on a High-Stakes Test? Analyzing School, Teacher, Teaching, and Professional Development Characteristics. *Urban Education*, 55(8-9), 1280-1314. <https://doi.org/10.1177/0042085916668953>
- Hallam, S. (2010): The power of music: its impact on the intellectual, social and personal development of children and young people. *International Journal of Music Education*, 28(3), 269–289.
- Harvey, M., McIntyre, N., Heames, J.T. & Moellerr, M. (2009). Mentoring Global Female Managers in the Global Marketplace: Traditional, Reverse and Reciprocal Mentoring. *The International Journal of Human Resource Management*, 20(6), 1344-1361. <https://doi.org/10.1080/09585190902909863>
- Hernandez, A., Silverman, D. M. & Destin, M. (2021). From deficit to benefit: Highlighting lower-SES students' background-specific strengths reinforces their academic persistence. *Journal of Experimental Social Psychology*, 92, 104080 <https://doi.org/10.1016/j.jesp.2020.104080>
- L. Ritók, N. (2010). *Művészeti nevelés és hátrányos helyzet*. [Art education and disadvantage] Downloadable: http://www.tani-tani.info/081_ritok, 25.02.2023.
- Román-Caballero, R., Vadillo, M. A., Trainor, L. & Lupiáñez, J. (2021). Please don't stop the music: A meta-analysis of the cognitive and academic benefits of instrumental musical training in childhood and adolescence. *Educational Research Review*, 35, 100436. <https://doi.org/10.1016/j.edurev.2022.100436>.
- Sántha, K. (2012). Numerikus problémák a kvalitatív megbízhatósági mutatók meghatározásánál. [Numerical problems in the definition of qualitative reliability indicators] *Iskolakultúra*, 22(3), 64-73.

- Sántha, K. (2015). *Beavatkozás nélküli vizsgálatok. [Tests without intervention]* <https://epa.oszk.hu/00000/00035/00115/2007-07-ta-Santha-Beavatkozás.html>
- Sántha, K. (2022). *Kvalitatív tartomelemzés. [Qualitative content analysis]* Eötvös József Könyvkiadó.
- Szűcs, T. (2023). The Transfer Effects of Learning Music and Their Underlying Causes. *Studia Universitatis Babeș-Bolyai Series Musica*, 68(1), 185-202.
- Verein zur Förderung Sistema-inspirierter Musikvermittlung in Europa. (2024). *Sistema Europe*. Systema Europe. <https://www.sistemaeurope.org/>
- Winston, J. L., Jazwinski, B. M., Corey, D. M. & Colombo, P. J. (2022). Music Training, and the Ability of Musicians to Harmonize, Are Associated With Enhanced Planning and Problem-Solving. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.805186>

2. STUDENT'S BURNOUT AND COPING METHODS

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Abstract

The objective of our talk is to present the prevalence of depression and burnout among university students in the post-COVID period. A common topic in the international literature is the assessment of the psychological state of university students and the assessment of risk factors to maintain or improve their quality of life (Oláh, 2015; Brown, 2018; Abrams, 2022; Campbell et al, 2022). Our cross-sectional study was conducted among full-time student teachers. Since this group of students is preparing for a helping profession, it is particularly important what coping resources they possess to overcome the difficulties and professional challenges they face. The aim of our study is to explore the demographic and institutional risk and protective factors of burnout and depression and to facilitate their diagnosis. Method: depression was measured with the abbreviated Beck Depression Questionnaire (Beck&Beck, 1972), burnout was measured with the Maslach Burnout Inventory (1996), and the Psychological Immunocompetence Questionnaire (Oláh, 1997) and the Coping Methods Questionnaire (Folkman&Lazarus, 1980) were also completed. According to the results of our pilot research, the studied student population (N: 46) shows symptoms of burnout, their psychological immune system is underperforming in certain components compared to the expected results, and 76% of the students struggle with mild and moderate depression. The results of our descriptive statistical study indicate that our students need a definite psychoeducational intervention to maintain their well-being and their future professional efficiency.

Keywords: *burnout, university students, institutional risk and protective factors, psychoeducation*

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Introduction

Nowadays, teacher training is of particular importance in Hungary in view of the ageing of teachers and the low number of applications for teacher training, as well as the high rate of drop-out during training and after obtaining a diploma. Through comprehensive innovation, our universities aim to increase their professional competitiveness and to demonstrate significant scientific and practical results on the international stage. However, the success of the project will depend on the quality of the human resources and the mental hygiene of the university student groups. Starting careers and professional success of young professionals are linked to the dimensions of individual well-being, therefore, in order to succeed, it is necessary to raise awareness and develop students' emotional and mental resources.

Stress and coping methods

Selye's (1966) classification of stress types allows us to speak of eustress and distress. Both types of motivation are immediate. Among other things, eustress helps us to cope with challenges, to escape dangerous situations, by acting as a stimulant and energizer. Distress is caused by uncontrollable, excessive stressors when there is no opportunity to use personal competencies effectively or when coping strategies are inadequate. The long-term presence of stressors can lead to physical and psychological illness, through psycho-immuno-neurological processes, to burnout. The common characteristics of stressors, such as uncontrollability, unpredictability, and negative self-image due to the difficulty or impossibility of a solution, are also important factors in workplace stress situations. Work-related stressors can be classified into several groups. These include, from the point of view of the topic, stressors related to the task, such as changes in the work (tools, assessment criteria, changes in work tasks), which undermine the employee's confidence in his/her competence and expertise, and technological changes that require constant learning and adaptation.

The burnout syndrome

Burnout refers to a change in attitude towards work that manifests itself in clinical symptoms of emotional exhaustion, depersonalization, and decreased personal effectiveness. It affects mainly those who work with emotionally saturated human relationships in their work, so it can also affect teachers in addition to doctors, health professionals, pastors, and social workers (Bordás, 2010). At the same time, university students in teacher training, who are also preparing for an assistant career and who spend a significant amount of time during their studies in pedagogical practice institutions, do not receive enough attention. They face a similarly stressful environment in which feelings of professional incompetence can make it even more difficult to maintain emotional balance. University courses and practical training occupy almost all the teaching students' time on a full-time basis. Research on the topic of burnout examines the phenomenon from the individual, interpersonal and organ-management side (Mihálka, Pikó 2018). The individual approach focuses on the examination of personality, with particular reference to the personality traits that predispose to burnout syndrome and to the symptoms of burnout at the individual level. Interpersonal aspects relate to the social environment and the relationship between the assistant and his client. Research on the organisational level focuses on the specifics of the job, job area and organisation (Szigeti, 2021). Examining the causes of burnout syndrome, Malakh-Pines, Aronson and Kafry (1981, in Ónody, 2001) identified three causes of burnout in their study of 4,000 individuals: emotional overload, client-centred orientation, and certain personality traits that influence career orientation. Barth (1990, in Ónody, 2001) found that there are three factors that are similar to and different from the previous ones in the development of burnout. On the one hand, high levels of stress and emotional strain lead to emotional exhaustion; on the other hand, low motivation and job dissatisfaction lead to reduced performance. And finally, the deterioration of workplace relationships, which leads to dehumanization. Helper personality functioning may also be a risk factor for burnout and may lead to Helper syndrome in some cases. Strengthening the psychological immune system may also play an important role in combating burnout. According to Oláh (1996), this system includes elements such as control, optimism, self-esteem, empathy, emotional sensitivity and control, perseverance, and the ability to monitor, mobilize and create a social resource. These personality traits play a role in the

cognitive assessment of a given stress situation, in the selection of coping strategies, and in the exploration of resources to be involved. The coping mechanisms of stressful situations are characteristic features of the functioning of the personality. In the process of coping, we seek to resolve the stressful conflict through cognitive, behavioral, and emotional efforts (Pikó, 2010). There are three factors involved in coping with stress (Csíkszentmihályi, 2001):

- available external support, especially the social network,
- individual psychological resources (e.g. intelligence, education, other relevant personality traits), and
- coping strategies to cope with stress.

Coping mechanisms are grouped by the authors according to several criteria, but most experts agree that coping strategies are generally used in a mixed way. Lazarus and Launier (1978) distinguish between emotion-focused and problem-focused coping mechanisms. In the former case, the goal is to reduce the negative emotional state associated with the stressful situation, and thus to move on to a focused strategy of problem solving, in which the goal is to eliminate the stressor or avoid the threatening stimulus. Lazarus and Folkman (1986) identified eight additional strategies within forms of struggle, including confrontation, withdrawal, regulation of emotions and behavior, seeking social support, taking responsibility, problem-solving planning, avoidance-escape, and seeking positive meaning.

Studies involving university students on the subject of burnout

There are quite a few studies in the international literature that deal with the phenomenon of burnout measured among university students. Interest in the phenomenon has been growing since the 1980s, and research involving university students has become widespread since the 1990s (Garden 1991; Balogun et al. 1995, 1996; Jacobs&Dodd 2003; Dyrbye et al. 2006; Hazag et al. 2010; Bresó et al. 2011). The incidence of burnout in international studies for adults is 20 to 22% (Major et al. 2006), and similar rates are found among students (Dyrbye et al. 2006; Hazag, Major 2008). In the domestic context, a Boda Tímea review (2020) shows that the number of students enrolled in teacher training in 2020 decreased by 50% compared to the previous year, while the number of drop-outs also increased significantly. Another problem is that young people who graduate from university do not even start their teaching activities after their studies, they change careers. Research has shown that poor mental health is a risk factor for viral diseases among university students. We've all experienced an increase in the number of factors in our environment that are prone to burnout, in addition to stress and overwork. Boda (2020) shows that the well-being experienced by the students in teacher training that she has studied is lower than expected, despite the fact that they are young, energetic individuals facing important life tasks. They typically lack the skills to deal with stress, are tired, and irritable.

Methods

Our study

According to the definition of student burnout, the authors distinguish three dimensions: exhaustion due to the demands of study; cynicism and distant attitudes towards studies; feelings of incompetence, decreased efficiency and performance as a student (Maslach, 1996). Following Maslach, the MBI-Student Survey (MBI-SS) was also developed, which shows appropriate psychometric characteristics in a variety of environments. The

characterisation of the three dimensions listed and examined is as follows: Emotional exhaustion refers to a chronic state of physical and psychological exhaustion.

The main sources of emotional exhaustion are work overload and personal conflicts, emotional recharging without replenishment, and low motivation to face everyday difficulties (Maslach, 1998; Celik&Oral, 2014). Cynicism (depersonalization) refers to a negative feeling or overly distant reaction to other people and often refers to a loss of idealism. This component represents the interpersonal dimension of burnout (Maslach, 1998). Decreased personal performance is associated with a sense of competence and a sense of efficiency. There is a growing sense of inadequacy about one's own personal abilities. This component represents the self-assessment dimension of burnout (Maslach, 1998). Using the Psychological Immunocompetence Questionnaire (Oláh, 2005), students' competencies in support of maintaining mental health are reviewed, and a group psychological immunity pattern is mapped. We compare the characteristics of this group with the results of teachers' students in a previous study, and we compare their scores with the standard average. The use of the Beck Depression Questionnaire (Beck&Beck, 1972; Kopp&Fóris, 1995; Rózsa et al, 2003) examines the symptomatic components of depression. These include social withdrawal, indecisiveness, sleep disturbance, fatigue, excessive worry about physical symptoms, inability to work, pessimism, lack of joy, and self-blame. We used an abbreviated version of the Conflict Resolution Questionnaire developed by Lazarus and Folkman to map students' coping strategies. Coping strategies refer to the efforts people make to cope with stressful life events (Lazarus&Folkman, 1984). The most common distinction in the literature is between problem-solving and emotion-based coping strategies. Research indicates that both types of strategies are used with stressful life situations, but the relative proportion of these is dependent on individual dispositions (Rózsa et al, 2003).

The research took place in December 2021 among special education teacher students in a day-school, corresponding to the topic of an university course. Participation was on a voluntary basis, with student consent, by filling out a paper-based test, taking into account anonymity. N:45 person; average age: 21.2 years; Gender: 100% female

Results

Mainly in our descriptive statistical analysis, for which we used the SPSS V27 Statistical Program and MS Excel. The results of the examination procedures are set out below. Our data from the Psychological Immunocompetence Questionnaire, by subsystems, compared to the standard average, is shown in Figure 1.

Results from the three subsystems summarizing 16 markers of the psychological immune system showed that the test group's results relative to the standard average are significantly lagging behind the Self-Regulatory subsystem. The categories that make up the self-regulatory subsystem are: synchronization, endurance, impulse control, emotional control, and irritability control.

The 16 markers are detailed, and the characteristics of the test group (Figure 2) indicate a significant lag in synchronisation compared to the standard average. Synchronicity is the capacity of the individual to vibrate with changes in the environment when he or she is in tune, able to concentrate his psychic energies fully on the activity of his intention, ability to control attention and cognitive functioning (Oláh, 2005). There's also a lack of emotional control. Emotional control enables us to transform the dominance of negative emotions caused by

failures and threats into constructive behavior. In the area of control of irritability, the test group also shows weak characteristics, i.e. the ability to exercise rational control over emotions such as tempers, anger, and to use anger in a constructive way falls short of the standard average (Oláh, 2005). Among the components of the mobiliser-executor-creator subsystem, the characteristic data on social creativity is also missing from both the average and the average of the group of teacher-students matched as a control (Figure 3). The dimension of social creativity involves the ability to explore the capacities of others in the process of co-thinking (Oláh, 2005). In the same subsystem, we find the social mobilization capacity, in which the test group shows a lower value than the average of the matched group. This ability enables us to persuade others and to be active and successful in establishing relationships (Oláh, 2005). Among the dimensions of the Approach-Monitoring subsystem, the test group shows weaker characteristics in the areas of challenge-resilience and positive thinking compared to the average of the matched group. Challenge and resilience are the openness, the ability to respond adequately to change, with which we support individual development and show openness to the new. Positive thinking is success orientation. In the Figure 3 we review the differences between the results of our sample and the results of a 2016 survey of teachers' students (Kocsis, 2016) and optimism about the future, the tendency to anticipate and anticipate positive changes (Oláh, 2005).

The comparative results of the groups show no significant differences, only in a few dimensions. The results of the study group show a small negative difference in the dimensions of positive thinking, resilience, social mobilization, social creativity, emotional and irritability control. In the synchronisation dimension, there is a significant lag, i.e. the ability to follow changes in the environment is more difficult when monitoring the activity performed. Therapist students scored remarkably high on the endurance and impulse control dimensions. We'll get to that later. In the following figure (Figure 4), the results relative to the standard average are shown in more detail for the test group, in a subsystem-by-subsystem overview. There are clearly areas where some members of the study group produced above-average scores, but those with poor immunocompetence are very far from the standard „poor” average in the negative direction. The Self-Regulatory Subsystem also shows an extreme value (see Figure 1 above).

A summary of the psychological immune system function of the study group is shown in Figure 5. From this, we can conclude that 38% of the students examined are weak, 27% are moderate, and only slightly more than a third have a strong psychological immune system. The results of the MBI Student Study (MBI-SS) are shown in Table 1. N:46 head; average age: 21.2 years.

With appropriate Cronbach- α values, we can see the results achieved by the study group in Figures 6-9. In the figures, we can see the degree of burnout and the characteristics of its dimensions. Among the students surveyed, high levels of burnout are 37 percent, high levels of inefficiency are 28 percent, high levels of exhaustion are 56 percent, and high levels of cynicism are 35 percent, which puts them into the vulnerable category. For the decrease in efficiency, the graph indicates that there was not a single student who did not feel at least a moderate decrease in efficiency.

In our country, the Beck Depression Questionnaire is successfully used as a measurement tool among both normative and clinical patient groups (Gonda&Rózsa, 2020). The results of the Beck Depression Questionnaire students are shown in Figure 10. N: 46

people; average age: 21.2 years. We found that clinically significant depression was present in 22 percent of the students, and only 2 percent were in the normal range.

Discussion

In a qualitative, small-sample pilot study of the study group only, we examined the mental state and emotional exhaustion of special education teacher students. We can see that their psychological immune system, specifically the self-regulatory subsystem, has values that are below the standard average, and 38% of the group falls into the category of having a weak psychological immune system. In terms of burnout, 37% had a high burnout level and 56% had a high exhaustion level. The majority of the students involved in depression, and 22% of them have clinically significant levels of depression. Our answer to our research questions is that because our students need psychological support, university studies should include training that is much more person-centered, reinforcing the dimensions of self-knowledge, teaching stress management techniques and conflict resolution strategies. Based on our results, we can expect more strengths from our students that we can build on when designing prevention and intervention programs. Such as endurance, impulse control, self-esteem and self-efficacy, in which the study group achieved higher scores than the control population in the Psychological Immunocompetence Questionnaire (Figure 3). It is worth considering whether the above characteristics may represent post-traumatic growth following the COVID-19 pandemic, given that post-traumatic growth is development induced by trauma processing (Tedeschi & Calhoun, 1996Pron). In this case, we have the opportunity to positively frame the psychic experiences of the past period.

Intervention options for students to deal with emotional exhaustion In the treatment of emotional exhaustion, it is worthwhile to teach students to use techniques that help to relieve stress. Various relaxation methods, such as breathing exercises, autogenic training, progressive relaxation, and visualization exercises, which reduce stress and anxiety levels, are suitable for this purpose and are therefore suitable for the prevention and intervention of emotional exhaustion (Davis et al., 2021). In addition, it may be helpful to teach mindfulness practices to help you experience mindfulness. In addition to stress-relieving techniques, it is necessary to strengthen basic personality functions to avoid emotional exhaustion in the long run. To this end, it is worthwhile to aim at improving the functions of self-control, helping to develop emotional expression and self-validation (Margitics, 2005), for which a self-awareness group organized for students, led by a psychologist, individual psychological counseling or therapy provides an appropriate framework. It is also worthwhile to teach learning techniques to students after assessing learning styles, as McManus and colleagues (2004) found in their longitudinal studies that learning styles can predict the ability to cope with stress and burnout. Based on their results, those with an immersive learning style were less at risk for emotional exhaustion and burnout than those with a superficial learning style.

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Figures

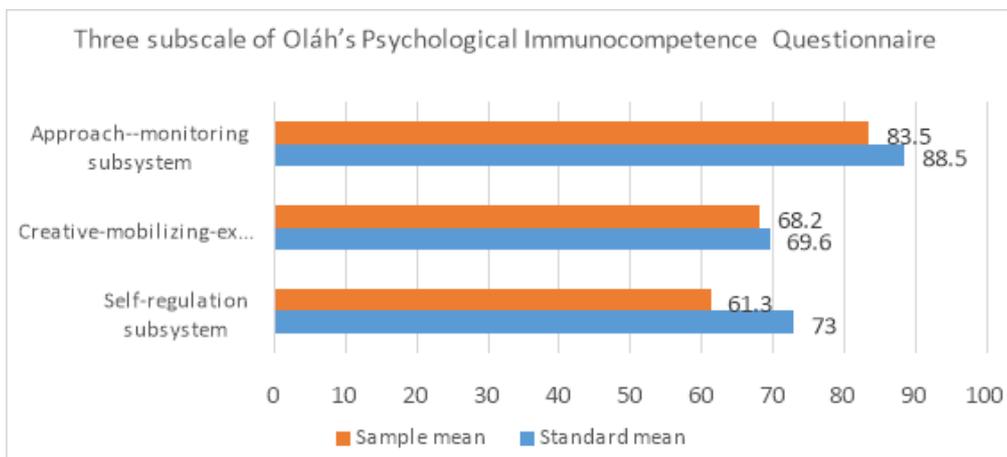


Figure 1.

Comparison of the mean of the test group with the standard mean, by subsystem

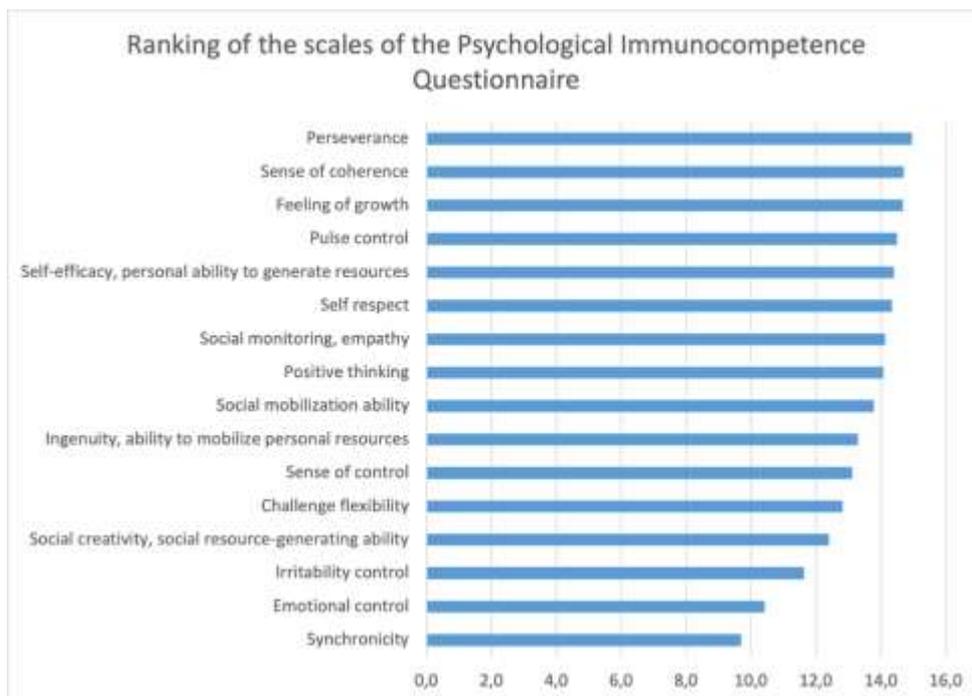


Figure 2.

Presentation of the 16 markers for the
test group

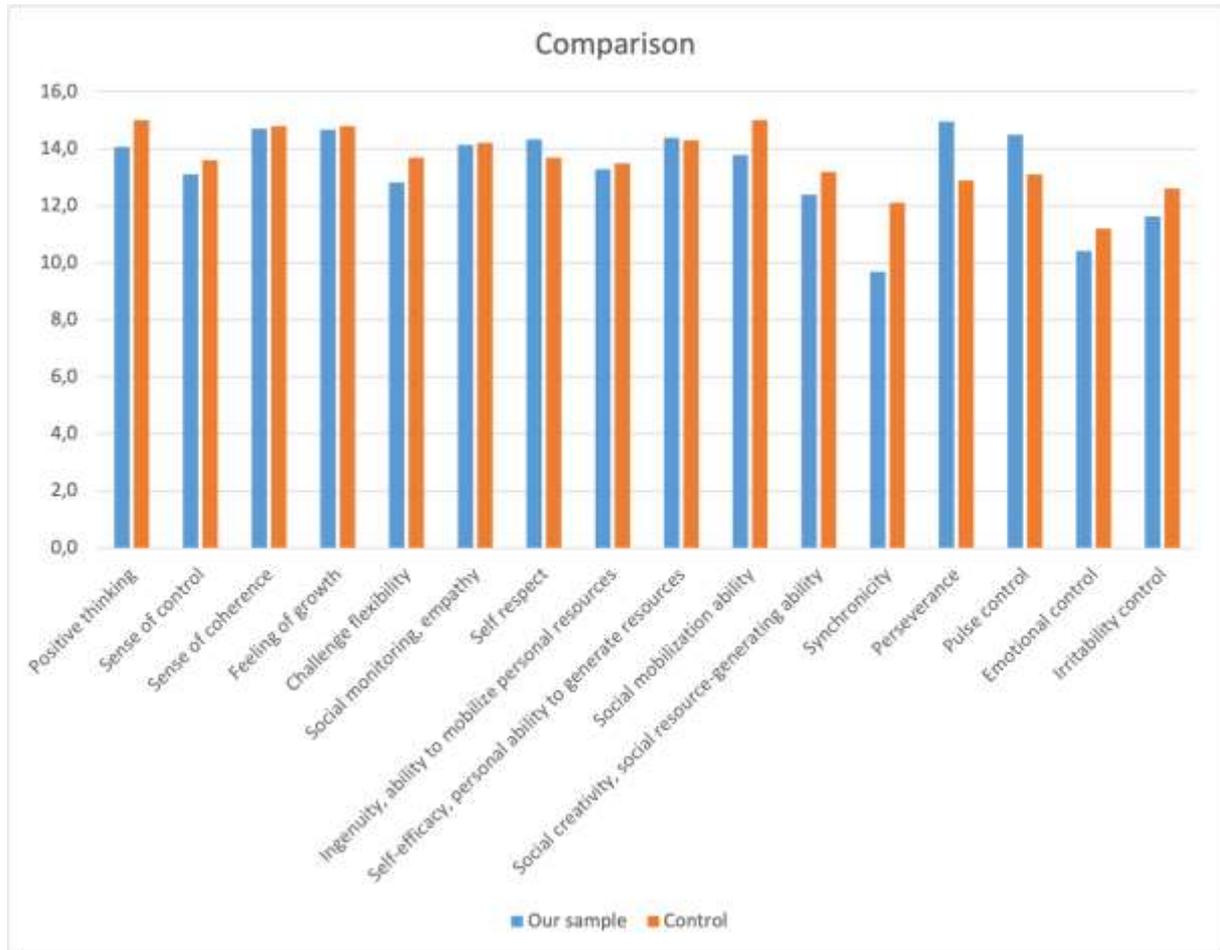


Figure 3.
Comparison of the results of our study group with the results of the 2016 survey of teachers' students

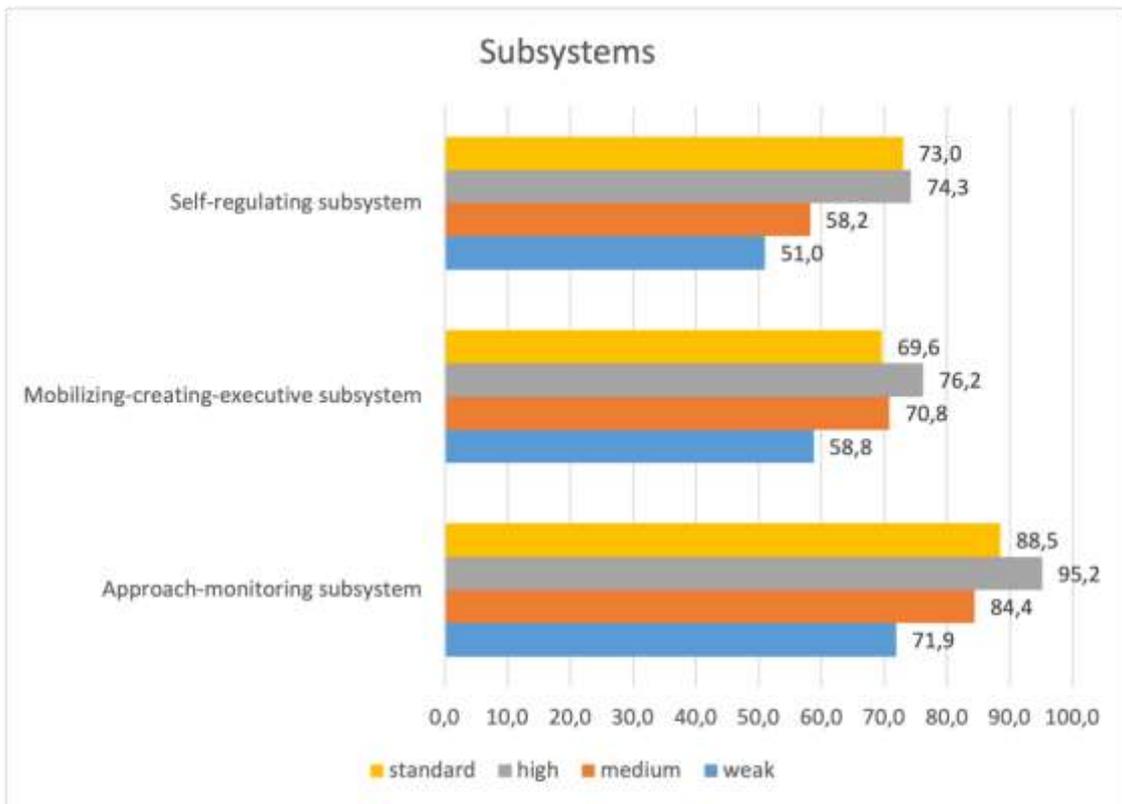


Figure 4.
Characteristics of the Psychological Immunocompetence Questionnaire subsystems compared to the standard average in the test group

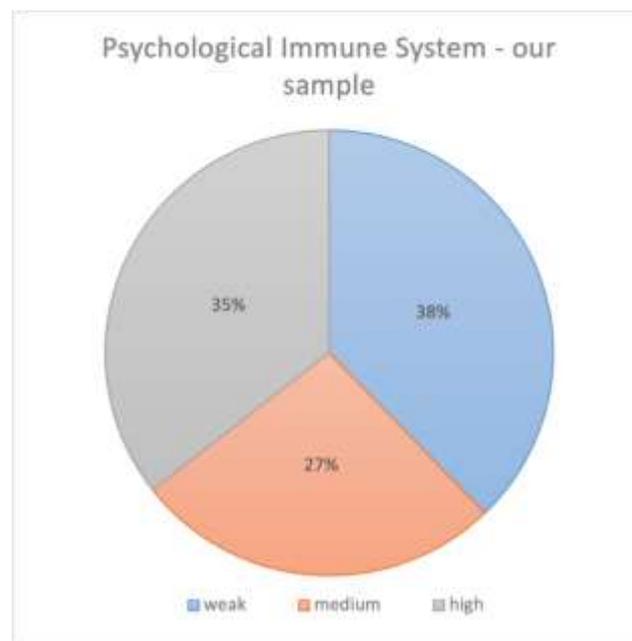


Figure 5.
Functional characteristics of the Psychological Immune System of the study group

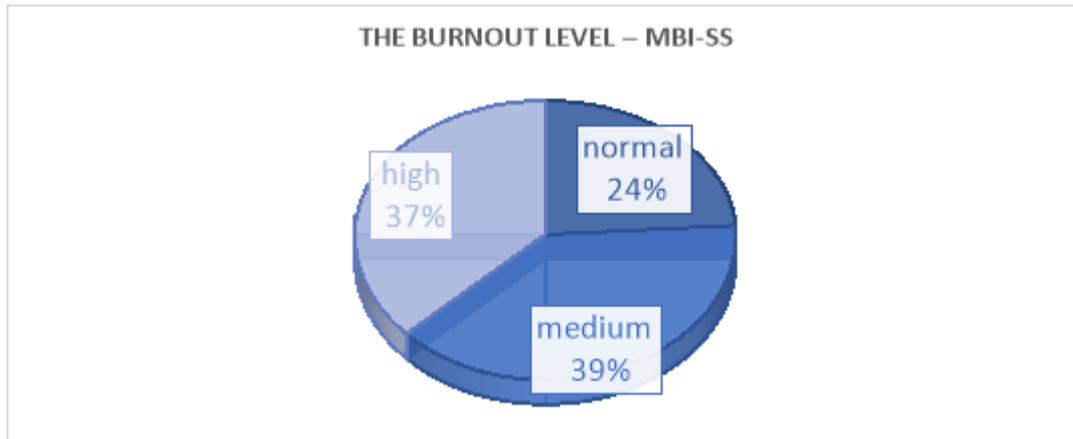


Figure 6.
The level of Burnout in the study population

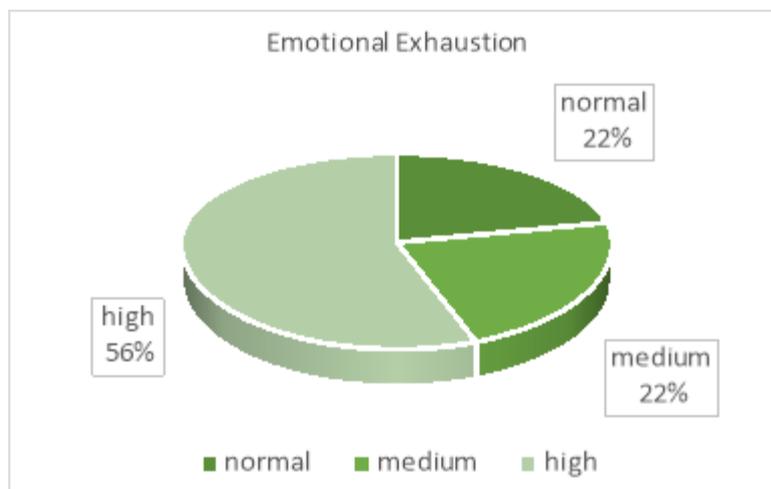


Figure 7.
The level of Emotional Exhaustion in the study population

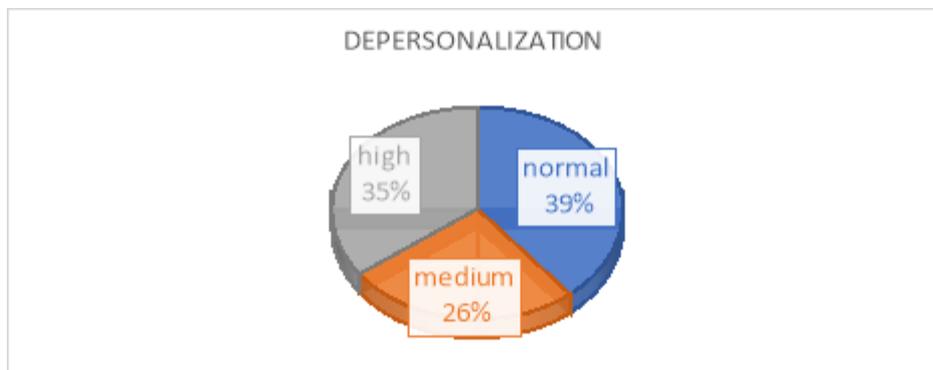


Figure 8.
The level of Depersonalization in the study population

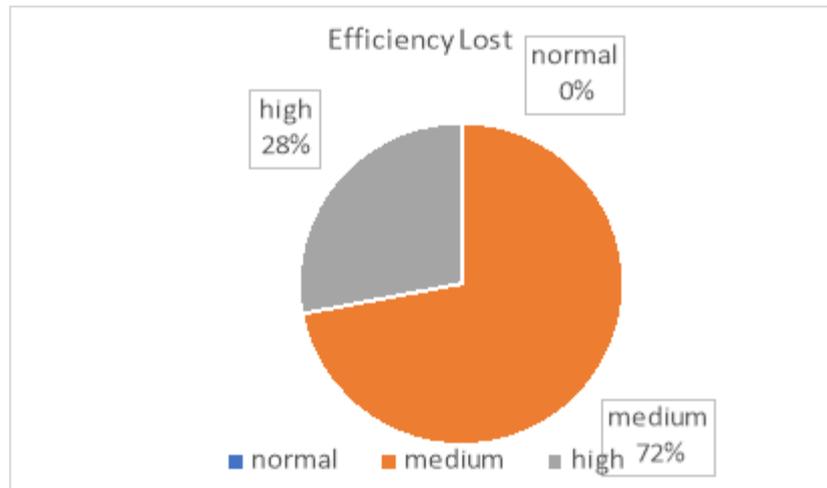


Figure 9.
The level of Efficiency Lost in the study population

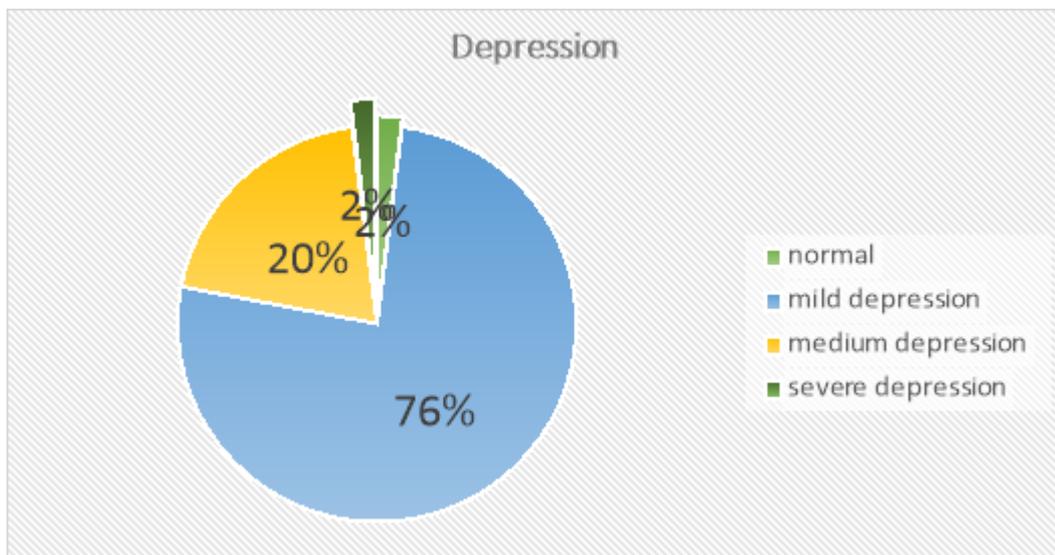


Figure 10.
Level of Depression in the study group

| | N | Cronbach-alfa | Min | Max | Mean | Deviation |
|-------------------------|----|---------------|-----|-----|------|-----------|
| Emotional Exhaustion | 46 | 0,79 | 5 | 25 | 14 | 5,4 |
| Depersonalization | 46 | 0,82 | 0 | 24 | 8 | 5,4 |
| Personal Accomplishment | 46 | 0,79 | 2 | 22 | 12,8 | 5,3 |

Table 1.: Descriptive statistics of burnout in the studied teacher-student group (MBI-SS)

References

- Abrams, Z. (2022). Student mental health in crisis. campuses are rethinking their approach. *Monitor on Psychology*, 53(7), 60. <https://www.apa.org/monitor/2022/10/mental-health-campus-care> (2023.10.29.)
- Balogun, J. A., Helgemoe, S., Pellegrini, E., Hoerberlein, T. (1995). Test-retest reliability of a psychometric instrument designed measure physical therapy student's burnout. *Perceptual and Motor Skills*, 81(2), 667–672.
- Beck, A.T., Beck R.W. (1972). Shortened version of BDI. *Postgraduate Medicine*, 52(6), 81–85.
- Boda T. (2020). Attitude change in higher education: an examination of general well-being among students of the Faculty of Education at János Neumann University. *Gradus* 8(1), 58–64. <https://doi.org/10.47833/2021.1.ART.002>
- Bordás A. (2010). Burnout syndrome in foreign and domestic literature. *Educatio*, 19 (4), 666–672. https://epa.oszk.hu/01500/01551/00054/pdf/educatio_EPA01551_2010-4_Kutkozben3.pdf (2023.10.30.)
- Breso, E., Schaufeli, W. B., Salanova, M. (2011). Can a self-efficacy-based intervention decrease burnout, increase engagement, and enhance performance? A quasi-experimental study. *Higher Education*, 61(4), 339–355.
- Brown, J.S.L. (2018). Student mental health: some answers and more questions. *Journal of Mental Health*, 27(3), 193–196. <https://doi.org/10.1080/09638237.2018.1470319>
- Campbell, F., Blank, L., Cantrell, A., Baxter, S., Blackmore, Ch., Dixon, J., Goyder, E. (2022). Factors that influence mental health of university and college students in the UK: a systematic review. *BMC Public Health* 22 (1778) <https://doi.org/10.1186/s12889-022-13943-x>
- Celik, G. T., Oral, E. L.(2014). Burnout Levels and Personality Traits – The Case of Turkish Architectural Students. *Creative Education*, 4(2), 124–131. <http://dx.doi.org/10.4236/ce.2013.42018>
- Csíkszentmihályi, M. (2001). *Flow: the psychology of flow, the perfect experience*. Akadémiai Kiadó.
- Davis, M., McKay, M., Eshelman, E.R. (2021). *Stress reduction and relaxation methods*. Park Könyvkiadó Kft.
- Dyrbye, L. N., Thomas, M. R., Huntington, J. L., Lawson, K. L., Novotnx, P. J., Sloan, J. A., Shanafelt, T. D. (2006). *Personal life events and medical school burnout: a multicenter study*. *Academic Medicine*, 81(4), 374–384.

- https://journals.lww.com/academicmedicine/fulltext/2006/04000/personal_life_events_and_medical_student_burnout_.10.a (2023.10.30.)
- Folkman, S., Lazarus, R.S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health And Social Behavior*, 21(3), 219-239.
- Garden, A.M. (1991). Relationship between burnout and performance. *Psychological Reports*, 68(3), 963–977. <https://doi.org/10.2466/pr0.1991.68.3.963>
- Gonda, X., Rózsa, S. (2020). *Diagnostic questionnaires and symptom rating scales*. <http://real.mtak.hu/114431/7/2.2.2.pdf> (2023.10.28.)
- Hazag A., Major J. (2008). The phenomenon of student burnout, the mental health of medical professionals. *Mentálhigiéné és Pszichoszomatika* 9(4), 305–322. <http://real.mtak.hu/58227/1/mental.9.2008.4.2.pdf> (2023.10.27.)
- Hazag A. Major J., Ádám Sz. (2010). Measuring the burnout of students. Validation of the student version of the Maslach burning test (MBI-SS) on a domestic sample. *Mentálhigiéné és Pszichoszomatika* 11.(2), 151—168. <http://real.mtak.hu/58271/1/mental.11.2010.2.4.pdf> (2023.10.27.)
- Jacobs, S., R., Dodd, D.K. (2003). Student burnout as a function of personality, social support, and work- load. *Journal of College Student Development*, 44(3), 291–303. https://www.researchgate.net/publication/236728312_Student_Burnout_as_a_Function_of_Personality_Social_Support_and_Workload (2023.10.27.)
- Kocsis, J. N. (2016). Correlations of current levels of psychological immunocompetence with value preferences among students-to-be teachers. In: Karlovitz, J. (ed.). *Learning and growing*. <https://www.irisro.org/pedagogia2016konfketet/13KocsisJuditNora.pdf> (2023.10.26.)
- Kopp, M., Fóris, N. (1995). *Cognitive behavioral therapy for anxiety*. Végeken Kiadó.
- Lazarus, R. S., Launier, R. (1978). Stress-related transactions between person and environment. In Pervin, L. A., Lewis, M. (ed.): *Perspectives in Interactional Psychology*. Plenum Press, 287–327.
- Lazarus, R. S., and Folkman, S.(1984). *Stress, Appraisal, and Coping*. Springer.
- Lazarus, R. S., Folkman, S. (1986). Cognitive theories of stress and the issue of circularity. In M. H. Appley, R. Trumbull (ed.), *Dynamics of stress: Physiological, psychological, and social perspectives*. Plenum Press, 63–80.
- Major J., Rész K., Hulesch B., Túry F. (2006). The phenomenon of burnout in the medical profession. *Lege Artis Medicinae*, 16(4), 367–373.
- Margitics, F. (2005). Background factors of depressive experience processing in college students. *Mentálhigiéné és Pszichoszomatika*, 6(3), 197–230.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach burnout inventory manual* (3rd ed.) Consulting Psychologists Press.
- Maslach, C., & Goldberg, J. (1998). Prevention of burnout: New perspectives. *Applied & Preventive Psychology*, 7(1), 63–74. [https://doi.org/10.1016/S0962-1849\(98\)80022-X](https://doi.org/10.1016/S0962-1849(98)80022-X)
- McManus, I. C., Keeling, A., Paice, E.: (2004): Stress, burnout and doctors' attitudes to work are determined by personality and learning style: A twelve year longitudinal study of UK medical graduates. *Medical Education*, 2., 873—880. <https://bmcmmedicine.biomedcentral.com/articles/10.1186/1741-7015-2-29> (2023.10.28.)
- Mihálka, M., Pikó, B. (2018). Educators' satisfaction with life and its relationship to burnout and indicators of psychosomatic health. *Mentálhigiéné és Pszichoszomatika* 19(2), 140–157. <https://doi.org/10.1556/0406.19.2018.006>

- Oláh, A. (1996). *The personality factors of coping. The psychological immune system and how it's measured*. Manuscript
- Oláh, A. (1997). Psychological Immunocompetence Questionnaire. In: Perczel-Forintos, D., Kiss Zs., Ajtay Gy. (2005). *Questionnaires, assessment scales in clinical psychology*. National Institute of Psychiatry and Neurology, 131-138.
- Oláh A. (2005). *Emotions, coping and optimal experience*. Trefort Kiadó
- Ónody, S. (2001). The origin of burnout symptoms and their possible solutions. *Új Pedagógiai Szemle*, 51(5), 80–85. <https://epa.oszk.hu/00000/00035/00049/2001-05-ta-Onody-Kiegesi.html> (2023.10.28.)
- Pikó, B. (ed.) (2010). *In search of protective factors. Prevention of harmful addictions and health promotion during adolescence*. L'Harmattan
- Prince, J.P. (2015). University student counseling and mental health in the United States: Trends and challenges. *Mental Health & Prevention*, 3(1–2), 5–10. <https://doi.org/10.1016/j.mhp.2015.03.001>
- Rózsa S., Réthelyi J., Stauder A., Susánszky É., Mészáros E., Skrabski Á., Kopp M. (2003). Health status of the middle-aged Hungarian population: methodology of the Hungarostudy 2002 national representative survey and descriptive characteristics of the sample. *Psychiatria Hungarica*, 18 (2), 83–94.
- Selye J. (1966). *Our lives and stress*. Akadémiai Kiadó.
- Szigeti M. V. (2021). Burnout Prevention with Psychoeducation in Teachers. In: Carmo, Mafalda (2021 ed.). *Education and New Developments 2021*. World Institute for Advanced Research and Science. 205–209. http://end-educationconference.org/wpcontent/uploads/2021/07/END-2021_Book-of-Proceedings.pdf (2023.10.28.)
- Tedeschi, R.G., & Calhoun, L.G. (1996). The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress*, 9(3), 455–471.

3. TEACHERS' PERSPECTIVES OF CHALLENGES WITHIN THE UKRAINIAN EDUCATIONAL SYSTEM

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Abstract

The study examines teachers' perspectives on educational challenges in contemporary Ukraine. Online education has changed over the past three years from a novel experience that sparked some debate to a well-established approach to arranging the teaching process used by all educational institutions in Ukraine. Continued school closures only exacerbate learning losses in Ukraine.

The study explored one main question using an open-ended survey. What is the most significant problem currently affecting teachers in Ukraine? The questionnaire was distributed to 86 practising teachers in Ukraine in 2022. This main query was intended to elicit educators' opinions and to provide further context. The question was left open to promote critical thinking and explore possible answers that needed to be considered by the researchers or discovered in the literature study. The open-ended question was qualitatively analyzed to discover categories and themes. The findings comprised four categories and six themes. Teachers reported the following difficulties: adapting teaching to each student due to distance study, deterioration of student learning outcomes, large class sizes, difficult adaptive teaching, motivating students, managing the social and emotional problems of students, and meeting society's increasingly unrealistic expectations. Teachers regarded their challenges as a result of resource constraints

rather than deficiencies in their academic abilities. Therefore, we concluded from this study that teacher involvement in decision-making initiatives regarding educational challenges at the national level is necessary.

Keywords: *Ukraine, educational challenges, teacher perspectives, online distance education, learning losses*

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Introduction

Achieving sustainable development, a robust economy, and overall societal and individual well-being is vital for future prosperity, all strongly linked to state policies in education and science. Effective policy coordination, strategic management decisions, and long-term investments are essential to attain these objectives. The Ukrainian education system, aligned with the European framework, includes diverse educational establishments such as preschools, secondary and vocational schools, universities, postgraduate programs, doctoral studies, extracurricular learning, and self-directed education. To align with global and European standards, Ukraine must undergo substantial transformations in its political, economic, and social domains. Consequently, there have been numerous reforms in the education sector over recent years, aiming to meet international benchmarks.

According to the United Nations Development Programme's (UNDP) Human Development Report, Ukraine has made slow but consistent progress in development over the past few years. Despite the Russian invasion, Ukraine's Human Development Index (HDI) for 2023 is 0.77, placing the country in the high human development category and ranking it 77th out of 189 countries and territories (HDI, 2023). PISA 2018 results indicate that in reading literacy, the primary focus of the assessment, 15-year-olds in Ukraine received a score of 466 points, while the average score among OECD countries was 487 points, with a difference of 33 points (with the girls' average being 30 points higher than the boys'). The mathematical aptitude of 15-year-olds is approximately 453 points on average (OECD, 2018).

In contrast, the average performance of OECD countries is 489 points, showing a non-statistically significant difference of 7 points (with boys scoring 5 points higher than girls). On the other hand, Ukrainian students' average score is 469 points in science, which is only 2 points lower than the average score of OECD countries, with girls scoring 2 points higher than boys. In Ukraine, 14% of the variance in reading performance can be explained by socio-economic status, which is slightly higher than the OECD average of 12%. The gap between the reading scores of advantaged and disadvantaged students is 90 points on average, only one point higher than the average gap in OECD countries. Nevertheless, 12% of disadvantaged students in Ukraine can still maintain academic resilience, slightly higher than the OECD average of 11% (OECD, 2018).

Despite some progress, Ukraine still falls behind most OECD countries in several areas. It is noteworthy, however, that Ukraine performs better than anticipated, given its low level of funding, the ongoing COVID-19 pandemic, and the Russian invasion. The war in Ukraine has caused over six million Ukrainians to flee to neighbouring countries. Among them are roughly 665,000 students (16% of the total enrolled students) and over 25,000 educators (6% of the total educators in the country). Additionally, another 8 million Ukrainians have been displaced

internally. Children, women, and older individuals make up the majority of refugees and internally displaced persons (IDPs), with over 74% of IDPs having children in their households. Displacement has significantly impacted the delivery of education services, with educational facilities suffering damage and destruction. The war in Ukraine has forcibly displaced over 12 million people, including 4.6 million children, both inside and outside the country (World Bank, 2022).

Prior to the outbreak of the pandemic, Ukraine was performing on par with its neighbouring countries in Eastern Europe and even surpassing them in terms of the resilience of its students in the face of academic challenges. However, the Russian invasion has profoundly impacted Ukraine's educational landscape, with estimates indicating that learning outcomes have now fallen below those of the worst-performing countries in Europe. School closures, which have continued due to the ongoing Covid-19 crisis, have further exacerbated the situation. In Ukraine, schools have been closed or disrupted for 31 weeks, or nearly eight months, resulting in an estimated loss of around 20 Programme for International Student Assessment (PISA) points, based on OECD averages of learning per year. In addition, the war has added another two months to this figure. Due to the prolonged closures and the ongoing conflict, there is a concern that Ukraine may incur cumulative learning losses equivalent to more than a year's worth of education. According to HLO estimates, the prolonged closure of schools could significantly decline academic achievement. The projected drop in scores ranges from 481 to approximately 451 points, placing the student performance below that of Europe's poorest-performing countries, Armenia and Moldova. The consequences of this situation could have wide-ranging effects, potentially leading to students experiencing annual income losses exceeding 10% in the future (World Bank, 2023).

Distance education has been widely discussed worldwide due to its prevalence during the COVID-19 pandemic. However, its effectiveness in the Ukrainian context, coinciding with a large-scale Russian invasion in 2022, is still under investigation. The impact of active military actions on the development of the educational system remains unclear, as European countries have not faced such a severe challenge in the 21st century.

The educational sector in Ukraine faces significant hurdles due to the redistribution of secondary education budgets. This lack of sufficient funding results in low salaries for teachers, making it tough to attract and keep competent educators. With limited financial resources, large class sizes make it difficult to personalize learning, which harms teachers and students. The use of education subventions as a policy tool is relatively new in Ukraine, with an appropriate formula being introduced two years after the decentralization process began in 2015. Despite the challenges, there have been significant achievements, such as establishing standard class sizes, increased closure of small rural schools, predictability for local government budgetary decisions, a connection between education reforms and additional budget allocation, and establishing grants for policy purposes (Cabinet of Ministry, 2021). Despite the progress made in recent years, the Ukrainian education system still needs to overcome numerous obstacles. These include a need to recognise the formula as a valid requirement for education in the national budget, inadequacies in the normative class size measuring tool, an outdated teacher compensation system, incongruous education legislation, and the devastating repercussions of Russian aggression and occupation, which include the destruction of school facilities and the mass migration of students and teachers. As a result, a comprehensive education system

transformation is underway to guarantee high-quality learning at all stages, from early childhood education to higher and adult education.

Motivating students is a complex process that demands a multifaceted approach. This approach involves highlighting the significance of education, creating an immersive and stimulating learning environment, and cultivating positive relationships between teachers and pupils. Crowded classrooms present a significant obstacle to individualized attention, decreasing student involvement and motivation. The diminishing status of teachers is a cause for concern, as societal shifts and impractical expectations have led to a loss of morale and high turnover rates. The absence of recognition and appreciation for the profession discourages capable individuals from pursuing a career in education. Furthermore, imposing additional responsibilities and higher teacher expectations can discourage potential educators. The combination of these factors results in a need for more talent, leading to larger class sizes, reduced quality of instruction, and fewer opportunities for students.

The evident problem lies in the Ukrainian education system's inability to effectively address the modern needs of individual society and adapt to economic and global shifts. The array of external and internal problems has resulted in many educational challenges that significantly impact the quality of education.

Literature review

The impact of class size differences on educational outcomes has been a subject of intense debate, widely covered in media and research. Much of the discussion revolves around how class size correlates with academic performance, with limited insights into the classroom dynamics that might drive any observed effects (Anderson, 2000; Finn & Achilles, 1999; Grissmer, 1999).

Studies examining pupil-to-teacher ratios have indicated that smaller class sizes may lead teachers to shift from group teaching to more personalized, one-on-one instruction (Betts & Shkolnik, 1999). Anderson (2000) presented a comprehensive framework detailing potential factors that connect class size to student achievement. Key aspects related to teaching include:

- enhanced understanding of individual students,
- increased instructional time,
- elevated student involvement, and
- a deeper dive into content material in smaller class settings (Anderson, 2000).

Nevertheless, based on their study, Finn, Pannozzo, and Achilles (2003) determined that the impact of class size in elementary grades primarily pertains to student engagement rather than direct effects on teaching methods. However, smaller classes can positively influence teachers' interpersonal approaches.

The drive for achievement catalyzes action and provides direction towards realizing goals, making it an influential factor in academic achievement. Numerous studies, such as those conducted by Robbins et al. (2004), Hattie (2009), Plante et al. (2013), and Wigfield et al. (2016), have confirmed this notion. However, achievement motivation is not a singular concept but encompasses several distinct components, such as motivational beliefs, task values, goals, and achievement motives. Research conducted by Wigfield and Cambria (2010) and Wigfield et al. (2016) support this.

The closure of schools and the resulting social isolation had detrimental effects on students' psychological and emotional health. Concurrently, families were tasked with stepping into the educator role while navigating the pandemic's economic repercussions (Dorn et al., 2021). Similarly, educators and school administrators nationwide confronted unprecedented instruction challenges during these times. They had to acquaint themselves with emerging technologies and cultivate the expertise to attend to students' emotional and social needs alongside their academic requirements (Decker & Beltran, 2021; Zieher et al., 2021).

The unprecedented challenges and trauma arising from that distinctive year made the importance of emphasizing social-emotional learning (SEL) evident to educators (Michalec et al., 2021). Despite the hurdles of virtual teaching, teachers prioritized forging solid relationships with students, demonstrated empathy and resilience, and amplified connections with families and the broader community, aiming for a comprehensive support system for every student (Reddig & Vanlone, 2022; Yang, 2021). The framework for SEL-centered instruction revolves around five primary competencies:

- Self-awareness,
- Self-management,
- Social awareness,
- Relationship-building skills, and
- Responsible decision-making.

Social-emotional learning focuses on several key elements, including creating a secure learning environment in the classroom, establishing trust with students, and positively reinforcing the identities and cultures of students. Recent research has also emphasized the significance of SEL in promoting various skills, such as perspective-taking, emotion management, caring and concern, relationship development, and higher-order thinking skills. Furthermore, SEL highlights the importance of soft skills and encourages active engagement and participation by students to facilitate their learning. An integral aspect of implementing SEL routines is teachers' social-emotional competence and well-being, especially given the additional stressors and challenges they may face, such as personal trauma and loss or the challenges of teaching during a pandemic (Reddig & Vanlone, 2022; Schonert-Reichl, 2021; Corcoran & O'Flaherty, 2022). In order to navigate feelings of burnout, frustration, and fatigue, it is crucial to consider and provide support for teachers' social and emotional competencies (Corcoran & O'Flaherty, 2022). In the current climate, where teachers may experience high levels of stress and burnout, it is equally vital to acknowledge the significance of balance and self-care for teachers (Yang, 2021).

Teaching is a multifaceted profession that affects students' academic success, socioemotional growth and ability for self-directed learning (Bardach et al., 2021). One significant motivator for educators in their vital role is how they perceive public opinions about their profession. Research by Heffernan et al. (2019) pinpointed a gap between teachers' perception of public sentiment about their role and the actual views of the public. Interestingly, the general public held a more appreciative and respectful stance towards teachers than the educators believed.

It is evident from multiple studies that the portrayal of teachers in the media can often lean towards negative representations (Shine, 2020; Thapliyal & Fischetti, 2017; Willis et al., 2021). Frequent media narratives around schools and educators tend to push the notion that issues in education are primarily due to subpar teaching quality (Mockler, 2022). Such

portrayals can inevitably take a toll on educators. Shine (2021), for instance, delved into teachers' perspectives on the typical media depiction of their profession, revealing that a significant 80% perceived it negatively and considered it a contributing factor to potentially quitting the profession.

Cruikshank and MacDonald (2017) conducted a study on gratitude, which produced markedly different results. They emphasized that acknowledging and valuing the hard work of teachers was essential to their professional growth and longevity. The study found that acts of gratitude and respect from people with whom teachers interacted regularly, such as students, parents, and colleagues, were instrumental in generating feelings of appreciation. In Allen et al.'s (2020) recent research, it was discovered that teachers are highly regarded and trusted. However, the study also revealed that overworked teachers must feel the appreciation and trust they deserve.

International surveys and policy-related reports have identified several challenges facing education in Ukraine. This paper examines these challenges from the teachers' perspective to answer the question: What do educators in Ukraine consider the most influential factor affecting student outcomes?

Methods

Participants

This study's sample comprised 86 teachers actively teaching in Ukraine in 2022. Out of the 86 participants, were 15 male and 71 female teachers. The distribution of their teaching experience was as follows:

- 18% had 0-2 years of teaching experience.
- 22% have been teaching for 3-6 years.
- 18% had 7-10 years of experience.
- 6% have taught for 11-15 years.
- The remaining 50% had 16 or more years of teaching experience.
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Research question and data collection

In this study, a key question was explored using an open-ended questionnaire. Based on the guidance of Creswell (2007), the question was framed in the broadest way possible related to the research issue. Participants were asked: "What is the most significant problem currently affecting teachers in Ukraine?" This inquiry aimed to understand teachers' perspectives and to gain deeper insights. The open-ended nature of the question had several purposes:

- to stimulate critical thinking;
- to gather unbiased and varied opinions; and
- to uncover potential viewpoints that researchers might not have previously considered or identified in existing literature.

Creswell (2007) emphasized the value of such a question as it allows researchers to genuinely hear participants without imposing the "expert researcher" lens, preventing predisposed assumptions. By employing this approach, judgments and assumptions were withheld until the derived data could offer a substantial base for examination and association with other research findings.

Careful attention was given to word choice, clarity, and intent to ensure accurate translation from Ukrainian to English, considering the complexities and nuances that words carry within a language. Participants had the option to answer the question in either language.

The data collection phase spanned from May 2022 to December 2022. The dissemination method of the questionnaire needed to be more consistent across schools. In some instances, school principals took charge of the voluntary completion, while in others, a contact teacher would address the entire school or specific departments to fill out the survey. A commendable response rate of 60 per cent was reached.

Data analysis

Braun and Clarke's thematic analysis process was utilized as a guide to analyze the answers to the open-ended question. This was chosen because it emphasizes the importance of meaning and comprehension in analysis. Braun and Clarke explain how this method is used to report participants' experiences, understandings, and reality without being restricted to themes supported by predetermined theories that may be irrelevant. The analysis started with an open coding classification process. Following constant comparison and reconceptualization, a pattern coding method, categorization, was used to examine the codes and identify categories based on relationships. Then, patterns among these categories were sought to identify themes.

Results

In the current state of the Ukrainian educational system, teachers were tasked with recognizing and discussing the various challenges and perspectives. The answers to this open-ended question underwent qualitative analysis to determine distinct themes and categories. The results of this analysis revealed six themes and four categories, which are detailed in Table 1. Teachers attributed their difficulties to time constraints, limited resources, challenging behaviour, and societal factors rather than a lack of academic proficiency.

| |
|---|
| <p><i>Category 1: Temporal challenges</i> <i>Theme 1: Distance study</i> <i>Theme 2 War</i></p> |
| <p><i>Category 2: Instructional challenges</i> <i>Theme 3: Due to limited financial resources, class sizes are large; consequently, adaptive teaching is difficult.</i></p> |
| <p><i>Category 3: Behavioral challenges</i> <i>Theme 4: Motivating students is challenging due to their low work ethic and limited connection to real-life applications.</i> <i>Theme 5: Teachers are challenged with managing students' increasing social and emotional problems affecting the learning environment.</i></p> |
| <p><i>Category 4: Societal challenges</i> <i>Theme 6: Societal changes have lowered the status of teachers while producing increased unrealistic expectations; consequently, this is affecting the recruitment of competent teachers.</i></p> |

Category 1

Potential challenges that teachers in Ukraine report regarding current issues, such as distance study and the ongoing war in the country. It is important to note that these challenges vary depending on teachers' specific circumstances and individual experiences.

Theme 1

The prolonged distance learning during the COVID-19 pandemic and the war has posed challenges for teachers in Ukraine. Some common issues were reported: Lack of infrastructure (40%): Not all students and teachers had access to reliable internet connection and necessary technological resources, and distractions such as issues with energy supply made it challenging to facilitate online classes effectively. *“The shift to online learning has been a significant adjustment for both students and teachers. It has been challenging to recreate the same classroom interaction and engagement level in a virtual setting.”* Limited engagement (30%): Remote learning results in reduced student engagement and interaction, as well as challenges in monitoring students' progress and providing immediate feedback. *“Adapting assessments for online learning has been a creative process. Finding alternative ways to assess student understanding and learning outcomes has been essential to ensure fair evaluations.”* Technical difficulties (35%): Teachers encounter technical issues related to video conferencing platforms, online tools, or learning management systems, which can disrupt the teaching and learning process. *“One of the biggest challenges has been ensuring all students have access to the necessary technology and internet connection. It is important to find solutions to bridge the digital divide and provide equal opportunities for all students.”* *“Collaboration among teachers has become crucial during online learning. Sharing resources, lesson plans, and strategies have been beneficial in navigating this new teaching landscape.”* Adaptation to online teaching (35%): Traditional teaching methods translate differently to online environments, requiring teachers to acquire new skills and adapt their instructional strategies. *“I have had to learn new technologies and online tools to deliver my lessons effectively. It was a steep learning curve, but now I feel more comfortable using these digital resources.”* *“Although there are challenges, online learning has also presented opportunities for innovation and creativity in teaching. Exploring new instructional approaches and utilizing multimedia resources have enhanced the learning experience for students.”*

Theme 2

Ukraine has been experiencing an ongoing war, and this situation presents additional challenges for teachers, including certainly the first stated issue regarding safety concerns (90%): Teachers working in conflict-affected areas face risks to their safety and wellbeing, which impact their ability to carry out their teaching responsibilities. *“The war has profoundly impacted our students and their families. It is heartbreaking to witness the toll it takes on their emotional well-being and their ability to focus on their education.”* *“Ensuring the safety of our students and ourselves has become a primary concern. We must be constantly aware of the security situation and take necessary precautions to protect everyone involved in the learning process.”*

Many teachers stated concerns about the disrupted education system (75%): The war led to the destruction of educational infrastructure, displacement of students and teachers, and disruptions to the normal functioning of schools, making it challenging to provide quality education. *“Many students have been forced to flee their homes, leading to displacement and*

interrupted education. As teachers, we strive to create a sense of stability and support for these students, helping them cope with the trauma they have experienced.” “Access to education becomes even more critical during times of conflict. We work tirelessly to ensure that education reaches all students, regardless of their location or circumstances, and to minimize the educational disparities caused by the war.” “Collaboration among teachers, communities, and NGOs is vital in providing comprehensive support to students affected by the war. By working together, we can offer a more holistic approach to education and address the diverse needs of our students.”

Most teachers reported trauma and emotional impact (85%): Students and teachers living in Ukraine experience trauma and psychological distress, requiring additional support and resources to address their mental health needs. *“Teachers often find themselves in challenging situations, balancing the need to educate and support students while dealing with the emotional toll of the war. Self-care and seeking support from colleagues and mental health resources are crucial.”*

Some stated curriculum adaptations (45%): Teachers must modify their curriculum to address the specific challenges and experiences of students affected by the war, incorporating themes of peacebuilding, conflict resolution, and tolerance.

“Curriculum adaptations are crucial when addressing the challenges and experiences of students affected by war. By incorporating themes of peacebuilding, conflict resolution, and tolerance into the curriculum, teachers can provide valuable tools and knowledge to help students navigate the complexities of their environment.”

To overcome these challenges, teachers in Ukraine might benefit from professional development programs focusing on distance learning methodologies, trauma-informed teaching strategies, and strategies to promote inclusivity and support students affected by the conflict. Additionally, providing adequate resources, infrastructure, and support systems can mitigate the impact of these present challenges on teachers and students.

Category 2

Theme 3

Teachers reported various instructional challenges, and one significant issue is the impact of limited financial resources, leading to large class sizes. Here are some perspectives from teachers: Several teachers (45%) noted the “economy”. *“With limited financial resources, we often have large class sizes, which makes adaptive teaching quite challenging. It becomes more work to provide individualized attention and support to each student.”*

Individualized attention (35%): Large class sizes make it difficult for teachers to provide individualized attention to each student. Addressing specific learning needs, providing timely feedback, and offering personalized support becomes challenging. *“Creating a conducive learning environment where every student can actively engage in discussions and receive personalized feedback can be challenging in large classes. It requires innovative strategies to ensure everyone's participation.”* Some teachers remarked: *“With a limited number of teachers available, workload increases significantly, especially when faced with large classes. Providing quality instruction while managing administrative tasks and assessments becomes a balancing act.”* Some teachers reported issues with engagement and participation (45%). *“Large classes limit opportunities for active student engagement and participation. It can be*



more challenging to facilitate meaningful class discussions, encourage student interactions, and ensure everyone's voice is heard”.

Assessment and feedback (63%): Providing timely and detailed feedback on assignments and assessments can be time-consuming for teachers with large class sizes. Giving each student the necessary attention and constructive feedback to improve their learning becomes more complicated. The issues of personal connection were also reported: *“Establishing a personal connection with each student can be challenging in large classes. Building relationships and understanding students' individual strengths, weaknesses, and interests become more difficult, potentially affecting the quality of teacher-student interactions.”* A few comments concerned the benefits of large classes (20%): *“Despite the challenges, large classes can also foster collaboration among students. Encouraging peer learning and group activities can help mitigate some difficulties associated with limited resources and large class sizes.”*

Teachers reported issues with teacher workload (75%): Large class sizes often increase teacher workload. Marking assignments, preparing lesson materials, and providing individualized support require significant time and effort, leading to potential stress and burnout. *“In large classes, maintaining discipline and managing student behaviour can be more challenging...”* There were comments on diverse needs (45%). *“Large class sizes result in a wider range of learning abilities and diverse student needs. It is crucial to differentiate instruction and employ various teaching strategies to accommodate the individual needs of each student.”* While it is challenging, teachers in Ukraine have shown resilience and dedication in providing quality education despite limited resources. Collaboration among teachers, sharing best practices, and seeking support from school administration make a significant difference.

These comments reflect the instructional challenges teachers in Ukraine face due to large class sizes resulting from limited financial resources. However, teachers often find innovative ways to overcome these challenges and provide quality education to their students, relying on their expertise, creativity, and collaboration with colleagues and the broader education community.

Category 3

Theme 4

Teachers in Ukraine encounter various behavioural challenges in the classroom. Teacher perspectives regarding motivating students and managing social and emotional problems: Motivating students is challenging due to their low work ethic and limited connection to real-life applications (54%). Teachers asserted that students cannot see the use of education. *“Motivating students can be a constant struggle, especially when they lack a strong work ethic or fail to see the relevance of the content to their real lives. Making lessons more engaging and demonstrating practical applications can help improve motivation.”*

Some teachers stated: *“It is important to establish clear expectations and goals for students, highlighting the benefits and relevance of the knowledge and skills they acquire.”* *“Connecting the content to real-life examples and demonstrating its value can inspire them to be more motivated.”* Teachers expressed considerable concern about students' motivation (75%). *“Building positive relationships with students and understanding their interests and*

aspirations can help tailor instruction to their needs. We can increase their motivation by incorporating their interests and showing how the material aligns with their goals.”

Theme 5

Teachers are challenged with managing students' increasing social and emotional problems affecting the learning environment.

The reported answers concerning emotional student problems (55%): *“As teachers, we increasingly deal with students facing social and emotional challenges. Creating a supportive and empathetic classroom environment where students feel safe expressing their emotions and seeking help when needed is essential.” “Addressing students' social and emotional wellbeing should be integrated into the curriculum. Incorporating mindfulness activities, teaching coping strategies, and fostering open dialogue can help students manage their emotions and create a positive learning environment.”* Some teachers stated the possible solutions (45%): *“Collaborating with school counsellors, administrators, and parents provides valuable support in addressing students' social and emotional needs. By working together, we can develop appropriate interventions and ensure students receive the necessary support.” “Teachers must prioritize self-care and seek professional development opportunities for social-emotional learning. Enhancing our understanding of these issues equips us with effective strategies to support our students effectively.” “Implementing restorative practices and conflict resolution strategies can help students develop better social skills and resolve conflicts constructively. Creating a respectful and inclusive classroom environment is key to addressing social and emotional challenges.”* There were comments concerning possible solutions to motivate students: *“Recognizing and celebrating students' achievements and efforts can contribute to building their self-esteem and motivation. By fostering a positive and supportive classroom culture, we help mitigate some of the social and emotional problems that affect the learning environment.”* Addressing behavioural challenges requires a multifaceted approach that involves individualized instruction, building positive relationships, and providing social-emotional support. Teachers can create a learning environment that fosters motivation, resilience, and emotional well-being by understanding students' unique circumstances and needs.

Category 4

Theme 6

Societal changes have lowered the status of teachers while producing increased unrealistic expectations; consequently, this is affecting the recruitment of competent teachers. Many teachers believe that the public perception of teachers has changed in Ukraine. First, some teachers' (47%) perceptions were that there is *“a status decline, which can have a negative impact on the recruitment of competent individuals into the teaching profession. This shift in perception discourages talented individuals from pursuing teaching as a career.”* In support of this, some teachers (47%) identified unrealistic expectations as the cause of this recruitment issue: *“Unrealistic expectations placed on teachers, such as the demand for immediate and significant academic progress, can create immense pressure and lead to burnout and dissatisfaction among educators, making it challenging to attract and retain highly skilled teachers.”* Interestingly, one teacher wrote: *“The increasing emphasis on*

standardized testing and the pressure to achieve high scores can overshadow the broader goals of education. This narrow focus deters prospective teachers who value holistic learning and personal growth in students.”

Unfortunately, many teachers (55%) believed this societal challenge was compromising the quality of education for students. *“Teachers often face societal challenges, including lack of respect, criticism, and blame for various issues in the education system. This negative perception discourages potential educators from joining the profession, impacting the recruitment of competent teachers.”*

Some teachers reported (50%): *“The increasing workload and administrative burdens placed on teachers also deter individuals from entering the profession. Balancing administrative tasks with actual teaching responsibilities is overwhelming and discourages individuals from pursuing a teaching career.”* Most (85%) of teachers stated they were fulfilling their professional responsibilities by engaging in pedagogically sound practices (e.g., lesson planning, collaborating, reflecting, researching). *“Investments in the teaching profession, such as competitive salaries, professional development opportunities, and resources, can make the field more attractive to potential teachers. Providing a supportive work environment and recognizing the contributions of educators can help improve recruitment efforts.”* *“Collaboration between educational institutions, policymakers, and the community is essential to address societal challenges impacting the teaching profession. By working together, it is possible to create a positive narrative around teaching and actively recruit and retain competent educators.”*

By acknowledging the societal challenges teachers face and taking steps to address them, it is possible to enhance the perception of the teaching profession, attract highly skilled individuals, and ultimately improve the quality of education for students. To address these challenges, society must recognize and appreciate teachers' vital role in shaping the future. It is crucial to elevate the status of teachers and create an environment that fosters respect, support, and professional growth.

Discussion

The implementation of distance learning in Ukrainian education has met various challenges. Limited access to technology and internet connectivity, particularly in areas affected by the conflict, leads to difficulties in conducting online classes. Inadequate training and resources for teachers also contribute to the challenge. Moreover, the ongoing war in Ukraine challenges teachers and students alike, as the displacement of students and teachers disrupts the continuity of education. Additionally, the destruction of educational infrastructure, such as schools and universities, has a negative impact on the learning environment. Safety concerns and psychological trauma experienced by students and teachers also have detrimental effects on their educational experiences. These challenges were highlighted in the Cedos review titled “War & Education: How a Year of Full-scale Invasion Affected Ukrainian Schools” (Cedos, 2023,p). Ukraine's constrained financial situation has resulted in classrooms with a high student count. Such large class sizes pose challenges for teachers, impeding their ability to offer instruction adapted to each student's unique needs. This observation aligns with Anderson's 2020 study, which delved into the interplay between class size, student performance, and in-class dynamics (Anderson, 2000). Equipping classrooms with the

necessary resources and infrastructure can bolster teaching methodologies and foster better student participation. This perspective aligns with findings from the OECD study titled “Improving Education Outcomes for Students Who Have Experienced Trauma and Adversity” (OECD, 2020).

Teachers have identified a notable dip in student motivation. Insights from educators suggest that this decline is more attributable to students' decisions than any deficiency in motivational teaching techniques. A potential misalignment between the academic content and its real-world relevance might diminish students' enthusiasm. Outdated educational methodologies and curricula could be the culprits behind this issue. This sentiment aligns with the research conducted by Chingos, Russ, and Whitehurst (Chingos et al., 2012).

Furthermore, Ukrainian teachers are confronting the uphill task of addressing students' escalating social and emotional issues. Poverty, unstable family environments, and mental health challenges can cast a shadow on the academic ambience. These challenges mirror Choi's (2018) and Viac & Fraser (2020) findings. The research titled “Emotional Wellbeing of Children and Adolescents: Recent Trends and Relevant Factors” and “Teachers' Wellbeing – A Framework for Data Collection and Analysis delves deep into trauma-associated elements, including stress, personal security concerns, bullying, physical discomfort, and the broader spectrum of emotional wellbeing.

Various societal challenges and unrealistic expectations have negatively impacted the status of teachers in Ukraine. These expectations, which are placed on teachers by parents, policymakers, and society, can create immense pressure and stress. The decline in the status of the teaching profession may also adversely affect the recruitment of qualified teachers. McCallum and Price (2016) argue that the well-being of both educators and learners is a responsibility shared by individuals, collectives, and communities. This highlights the complexity of addressing employee well-being, which must be approached holistically. McCallum and Price advocate for a collaborative effort between schools, sectors, relevant authorities, and professional associations to prioritize and address teacher wellbeing throughout the teacher preparation, induction, mentoring, and professional learning processes (McCallum & Price, 2012).

The challenges in Ukrainian education stated in the study can be attributed to a range of factors, including limited resources, inadequate infrastructure, societal changes, the impact of war, and the overall economic situation in the country. Addressing these challenges requires investments in technology and infrastructure, teacher training and support, curriculum reform, and efforts to enhance the status and recognition of teachers in Ukrainian society.

Conclusion

To summarize, the goal of Ukraine's endeavour to integrate into Europe and the rest of the world requires substantial transformations within its educational realm. In order to meet international benchmarks and foster the growth of human resources for sustainable economic prosperity and personal welfare, the nation has introduced a series of reforms. These reforms address multiple facets of education, encompassing early childhood education, establishing a new Ukrainian school, vocational training, higher education, and science and innovation. Ukraine has witnessed advancements in human development, as demonstrated by notable improvements in life expectancy and education indicators.

Despite the obstacles faced, educators in Ukraine have exhibited remarkable perseverance and commitment to delivering high-quality education. To surmount these challenges, teachers must engage in collaborative efforts, exchange best practices, and seek assistance from school administrators. Additionally, it is essential to tackle the issues of insufficient funding, large class sizes, lack of motivation, and societal attitudes to enhance Ukraine's education system. It is advisable to conduct further investigations to understand these obstacles comprehensively. These inquiries aim to explore the interconnectedness of various factors and collect valuable insights from educators on overcoming them. By acknowledging and actively addressing these challenges, Ukraine can advance its pursuit of educational excellence and achieve seamless integration into the European and global society.

Limitations of study and recommendations for future research

It is essential to note that the study's findings are not intended to represent the entire national teaching workforce but are centred on a limited sample of 86 teachers. Nonetheless, this qualitative and interpretive small-scale study provides valuable insights by acknowledging the social context in which teachers operate, considering national and local factors.

To further explore these challenges in future research, it is advisable to conduct more in-depth investigations. This can be done through individual interviews and focus group discussions with educators. These qualitative inquiries can explore the implications of current, instructional, student-related, and societal challenges in greater depth. Additionally, teachers' suggestions for overcoming these challenges could be elicited.

Furthermore, conducting quantitative analyses to establish correlations between these four categories of challenges would be beneficial. This could shed light on the causal relationships among these challenges, particularly how lower-quality instruction impacts student motivation and behaviour. Such research could provide a more comprehensive understanding of the interplay between these factors and offer insights into potential strategies for improvement.

References

- Achilles, C. A. (1999). *Let us put kids first, finally: Getting the class size right*. Corwin Press.
- Allen, K., Grove, C., May, F. S., & Gamble, N. (2020). "I would not be who I am today without these incredible teachers": A social media analysis of the #thank your teacher campaign: World Teachers Day Report 2020. Monash University. Retrieved from https://www.monash.edu/__data/assets/pdf_file/0007/2352859/Monash-Education-World-Teachers-Day-Report-2020.pdf
- Anderson, L. W. (2000). Why should reduced class size increase student achievement? In M. C. Wang & J. D. Finn (Eds.), *How small classes help teachers do their best* (pp. 3–24). Temple University Center for Research in Human Development.
- Angrist, N., Djankov, S., Goldberg, P.K., et al. (2021). Measuring human capital using global learning data. *Nature*, 592(7852), 403–408. <https://doi.org/10.1038/s41586-021-03323-7>
- Ariffin, K., Halim, N. A., & Darus, N. A. (2020). Discovering students' strategies in learning English online. *Asian Journal of University Education (AJUE)*, 17(1), 261–268.

- Bardach, L., & Klassen, R. M. (2021). Teacher motivation and student outcomes: Searching for the signal. *Educational Psychologist*, 56(4), 283–297. <https://doi.org/10.1080/00461520.2021.1991799>
- Betts, J. R., & Shkolnik, J. L. (1999). The effects of ability grouping on student achievement and resource allocation in secondary schools. *Economics of Education Review*, 19(1), 1-15.
- Bhatnagar, R., & Many, J. (2022). Striving to use culturally responsive pedagogy online: Perceptions of novice teachers in high-needs schools during COVID-19. *Journal of Online Learning Research*, 8(2), 181-202.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77–101.
- Cabinet of Ministers of Ukraine. (2021). Resolution on amendments to the formula for distributing educational subventions between local budgets. https://decentralization.gov.ua/en/news/16636#_Toc130889047
- Corcoran, R. P., & O'Flaherty, J. (2022). Social and emotional learning in teacher preparation: Pre-service teacher wellbeing. *Teaching and Teacher Education*, 110-128. <https://doi.org/10.1016/j.tate.2021.103563>
- Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Sage.
- Cruickshank, V., & MacDonald, A. (2017). Good teachers grow: Disrupting negative depictions of teachers through relational a/r/tographic inquiry. *Australian Art Education*, 38(2), 319–338.
- Datnow, A. (2020). The role of teachers in educational reform: A 20-year perspective. *Journal of Educational Change*, 21(1), 109–113.
- Decker, J. C., & Beltran, V. (2021). Preservice teachers in distance learning: Mitigating the impact on social and emotional learning. *International Journal of Online Pedagogy and Course Design*, 11(3), 49-61.
- Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2021). *COVID-19 and education: The lingering effects of unfinished learning*. McKinsey & Company.
- Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2021). COVID-19 and education: The lingering effects of unfinished learning. Retrieved from <https://www.echs-nm.com/wp-content/uploads/2021/10/covid-19-and-education-the-lingering-effects-of-unfinished-learning-v3.pdf>
- Education subvention in the system of public finance in Ukraine.
- Finn, J. D., Pannozzo, G. M., & Achilles, C. M. (2003). The “Why’s” of Class Size: Student Behavior in Small Classes. *Review of Educational Research*, 73(3), 321-368. <https://doi.org/10.3102/00346543073003321>
- Grissmer, D. (1999). Class size effects: Assessing the evidence, its policy implications, and future research agendas. *Educational Evaluation and Policy Analysis*, 21(2), 231–248.
- Hattie, J. A. C. (2009). *Visible learning: A synthesis of 800+ meta-analyses on achievement*. Routledge.
- Heffernan, A., Longmuir, F., Bright, D., & Kim, M. (2019). *Perceptions of teachers and teaching in Australia*. Monash University. <https://www.monash.edu/thank-your-teacher/docs/Perceptions-of-Teachers-and-Teaching-in-Australia-report-Nov-2019.pdf>

- Human Development Index. (2023). Retrieved from <https://wisevoter.com/country-rankings/hdi-by-country/>
- Human Development Report. (2019). *Human Development Report: Overview*. Retrieved from <https://www.undp.org/ukraine/press-releases/ukraine-ranks-mid-table-undp%E2%80%99s-2019-human-development-report>
- Katz, D., Mahfouz, J., & Romas, S. (2020). Creating a foundation of well-being for teachers and students starts with the SEL curriculum in teacher education programs. *Northwest Journal of Teacher Education*, 15(2).
- Kidman, R., Margolis, R., Smith-Greenaway, E., & Verdery, A. M. (2021). Estimates and projections of COVID-19 and parental death in the US. *JAMA Pediatrics*, 175(7), 745-746.
- Longmuir, F., Heffernan, A., & Bright, B. (2020). New research shows we trust and appreciate our teachers – but overworked teachers are not feeling it. Australian Association for Research in Education. <https://www.aare.edu.au/blog/?p=5186>
- McCallum, F., & Price, D. (2012). Keeping teacher wellbeing on the agenda. *Professional Educator*, 11(2), 4.
- McCallum, F., & Price, D. (2016). *Nurturing well-being development in education*. Routledge.
- Michalec, P., & Wilson, J. L. (2022). Truth Hidden in Plain Sight: How Social–Emotional Learning Empowers Novice Teachers’ Culturally Responsive Pedagogy in Title I Schools. *Journal of Education*, 202(4), 496-506. <https://doi.org/10.1177/0022057421991866>
- Ministry of Education and Science. (2023). Remote platforms for learning, self-development, receiving assistance, and verifying information. Retrieved from <https://mon.gov.ua/ua/news/distancijni-platformi-dlya-navchannya-samorozvitku-ta-otrimannya-dopomogi-j-perevirenoyi-informaciyi?fbclid=IwAR3-LAt6Fr5tKC8bMyqMw3Rupuhb82-OgWE5Cb13CcxjFEwGCprUx150S5A>
- Mockler, N. (2022). What do we mean when we talk about teacher quality? *EduResearch Matters*. Retrieved from <https://www.aare.edu.au/blog/?p=13105>
- OECD. (2018). *Assessment and analytical framework*. Retrieved from https://www.oecd-ilibrary.org/education/pisa-2018-assessment-and-analytical-framework_b25efab8-en
- Organization for Economic Co-operation and Development (OECD). (2020). *Volume II: Teachers and school leaders as valued professionals*. OECD Publishing. https://www.oecd.org/education/talis/TALIS2018_CN_AUS_Vol_II.pdf
- Plante, I., O’Keefe, P. A., & Théorêt, M. (2013). The relation between achievement goal and expectancy-value theories in predicting achievement-related outcomes: A test of four theoretical conceptions. *Motivation and Emotion*, 37, 65–78. <https://doi.org/10.1007/s11031-012-9282-9>
- Reddig, N., & VanLone, J. (2022). Pre-service teacher preparation in trauma-informed pedagogy: A review of state competencies. *Leadership and Policy in Schools*, 3, 1-12.
- Robbins, S. B., Lauver, K., Le, H., Davis, D., Langley, R., & Carlstrom, A. (2004). Do psychosocial and study skill factors predict college outcomes? A meta-analysis. *Psychological Bulletin*, 130, 261–288. <https://doi.org/10.1037/0033-2909.130.2.261>
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54–67. <https://doi.org/10.1006/ceps.1999.1020>

- Schonert-Reichl, K. A. (2017). Social and emotional learning and teachers. *The Future of Children*, 137-155. Retrieved from https://www.jstor.org/stable/44219025?seq=1#metadata_info_tab_contents
- Shine, K. (2021). 8 out of 10 teachers think education news is negative and demoralizing. Some have even left because of it. *The Conversation*. Retrieved from <https://theconversation.com/8-out-of-10-teachers-think-education-news-is-negative-and-demoralising-some-have-even-left-because-of-it-162610>
- Smith, J. M. (2020). Practice what you preach: Culturally responsive pedagogy during Covid-19. *Issues in Teacher Education*, 29(1), 23–34.
- Thapliyal, N., & Fischetti, J. (2017). The myth of teachers as superheroes (and other bad messages) peddled by hit TV series. Australian Association for Research in Education. Retrieved from <https://www.aare.edu.au/blog/?tag=media-representation-of-teachers>
- UNESCO. (2023). Ensuring teaching and learning continues in Ukraine. Retrieved from <https://www.unesco.org/en/emergencies/education/ukraine>
- Wargadinata, W., Maimunah, I., Dewi, E., & Rofiq, Z. (2020). Student's responses on learning in the early COVID-19 pandemic. *Journal of Education and Teacher Training*, 73(3), 321-368.
- Whitehurst, G. J. (2002). Strengthen teacher quality. Remarks presented at the White House Conference on Preparing Tomorrow's Teachers. <http://www2.ed.gov/admins/tchrqual/learn/preparingteachersconference/whitehurst.html>
- Wigfield, A., & Cambria, J. (2010). Students' achievement values, goal orientations, and interest: Definitions, development, and relations to achievement outcomes. *Developmental Review*, pp. 30, 1–35. <https://doi.org/10.1016/j.dr.2009.12.001>
- Wigfield, A., Tonks, S., & Klauda, S. L. (2016). Expectancy-value theory. In K. R. Wentzel & D. B. Miele (Eds.), *Handbook of Motivation in School* (2nd ed., pp. 55–74). Routledge.
- Willis, A., Thiele, C., Dwyer, R., Grainger, P., & Simon, S. (2021). The pressing need to raise the status of the teaching profession: The launch story of the teachers of Australia social media campaign. *Australian Journal of Teacher Education*, 46(2), 1–14. <https://dx.doi.org/10.14221/ajte.2021v46n2.2>
- World Bank. (2022). Education: Impact of the War in Ukraine. Retrieved from <https://documents1.worldbank.org/curated/en/099945306202211104/pdf/P1775870809f1d04d0844c0e7042abf0eb5.pdf>
- Yang, C. (2021). Online teaching self-efficacy, social–emotional learning (SEL) competencies, and compassion fatigue among educators during the COVID-19 pandemic. *School Psychology Review*, 50(4), 505–518.
- Zieher, A.K., Cipriano, C., Meyer, J. L., & Strambler, M. J. (2021). Educators' implementation and use of social and emotional learning early in the COVID-19 pandemic. *School Psychology*, 36(5), 388-398.

ENVIRONMENTAL, HEALTH AND SUSTAINABILITY EDUCATION

1. ETHICS IN CREATIVITY AND INNOVATION PRACTICES AMONG TEACHERS IN MALAYSIA

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Abstract

Background & Aim

Creativity is defined as the production of novel, useful ideas, or solutions to problems, whereas innovation focuses on the usefulness of the ideas and solutions. The purpose of this research is to analyze the extent of ethical consideration in creativity and innovation activities by examining teachers' beliefs, attitudes, and intentions toward ethics in their creative and innovation practices in the classroom.

Methods

A questionnaire was delivered to 255 Malaysian secondary school teachers as part of this study's quantitative approach. Descriptive statistical analyses were performed on the collected data.

Results

According to the findings of the studies, respondents' beliefs, attitudes, and intentions regarding ethics in creative and innovative activities were poor except on environmental and curriculum matters.

Conclusions

It is vital to incorporate ethical values into the creativity and innovation process to create a community of teachers who go above and beyond to achieve global citizenship goals. Furthermore, the research can help to prepare the teaching community and create environments that foster responsible teachers for the world's well-being via teaching activities.

Keywords: *Teachers, Ethics, Creativity, Innovation*

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Introduction

The integration of creativity and innovation within the realm of education is closely intertwined with the establishment of a dynamic and captivating learning environment, which effectively equips students with the necessary skills to confront future difficulties. By integrating these methodologies, instructors have the potential to facilitate the cultivation of students' abilities and perspectives essential for success in a rapidly changing global landscape.

According to Amabile (2018), creativity can be defined as the process of generating novel and unique ideas, whereas innovation refers to the practical implementation and actualization of these ideas in a manner that is both meaningful and applicable. Creativity serves as the first catalyst, while innovation is the subsequent process that converts imaginative



concepts into concrete results. Creativity and innovation are vital factors for the progression and progress across diverse domains, encompassing art, science, business, and technology.

In the context of education, the cultivation of creativity and innovation among educators is crucial in promoting a dynamic and captivating educational setting. Creativity and innovation among pupils can be nurtured through promoting experimentation among teachers. At the same time, allowing teachers the discretion to develop their course material and select instructional approaches can foster creativity (Henriksen et al., 2021). By having the freedom to design their classes, teachers can customize their education to cater to the distinct requirements and preferences of their pupils.

Another crucial factor that fosters creativity and innovation among teachers is the promotion of collaborative efforts, facilitating the interchange of ideas and creative practices. Collaborative planning sessions, professional learning groups, and the exchange of best practices have the potential to foster creativity and spur innovation (Sawyer, 2019).

While we are focusing on cultivating and infusing creativity and innovative skills among the teachers there is a pivotal issue that must be considered when an individual is involved in the creativity and innovation process. McLaren (1993) emphasized that creativity has a "dark side" that must be carefully managed to avoid any negative consequences from innovations based on CI skills. This "dark side" of creativity emerged in the early years when Alfred Noble's invention of dynamite (McLaren, 1993) was supposed to be used in the mining sector but was recklessly used in war to kill mankind. This is also evident in many technological innovations that have deviated from their original purpose and become societal problems. Thus, ethics must come hand in hand with creativity and innovation to make the creative outputs more meaningful and serve a good purpose in education.

Ethics is crucial in defining how the consequences of creativity through inventions benefit all living beings in this biosphere (Gino & Ariely, 2012). Without a proper ethical foundation, creative thinking can lead to innovations that have negative consequences.

Ethics are of paramount importance in the context of education, as they serve to uphold the principles of integrity, fairness, and responsibility among teachers in their professional endeavors (Runco & Nemiro, 2018). As educators increasingly adopt novel methodologies within the educational setting, it becomes imperative to carefully contemplate the ethical ramifications associated with new pedagogical strategies. Ethics are of paramount importance in the realm of education, as they serve to uphold the principles of integrity, fairness, and responsibility among teachers in their professional endeavors. As educators increasingly adopt novel pedagogical methods within the educational setting, it becomes imperative to carefully examine the ethical ramifications associated with these instructional approaches.

Ethics serve as a moral framework that teachers rely upon to navigate their actions and make judgments that prioritize the well-being and educational needs of their students. Ethical practices play a crucial role in cultivating trust, fostering respect, and promoting fairness within the educational community (Runco & Nemiro, 2018). To foster a secure and all-encompassing educational setting that facilitates the comprehensive growth of students, educators must adhere to ethical principles.

The implementation of novel practices in education may give rise to ethical dilemmas for teachers. The obstacles encompass concerns about privacy and data protection in the context of technology usage, guaranteeing equitable access to resources for all students, and upholding academic integrity in evaluation methodologies (Maxwell & Schwimmer, 2016).

Furthermore, it is vital for educators to carefully contemplate the possible unforeseen ramifications of their inventive methodologies and guarantee their adherence to established educational policies and guidelines.

In Malaysia, the majority of teachers are involved in creativity and innovative processes in inventing educational resources for their students in classrooms. Ethical values are vital in creative and innovative teaching inventions as the teachers can contribute to positive learning experiences, empower students, and foster a responsible and compassionate educational environment – aligned with global citizenship values.

However, to what extent the teachers have the ethical consideration when involved in creative and innovative processes is still not well explored. Thus, in this study, the researcher will be investigating the beliefs, attitudes and intentions towards ethics in the creativity and innovation process among the teachers in Malaysia.

The outcomes of the study could serve as the cornerstone for educators and related stakeholders to improve the current paradigm of creativity and innovation activities among teachers with proper ethical consideration. This will ensure the outcome of the creative and innovative process will be benefitting the students and society at large.

Methodology

The study was based on Azjen and Fishbein's value expectancy model (Azjen & Fishbein, 1980), which states that an individual's beliefs cause the formation of attitudes, which influence the individual's views and intentions to act on specific topics.

Perloff (2016) has highlighted the importance of an individual's learned information on their beliefs and objectives. According to Wyer and Albarracin (2005), belief has a significant impact on an individual's values, mental state, and opinions. Additionally, intention is described as a mental state that motivates an individual's actions. Flowerree (2017) posited that there exists a strong interconnection between belief and intention, wherein an individual's belief system plays a crucial role in shaping their intentions and subsequent actions (p. 18). Belief and intention possess agential characteristics, as indicated by the value expectancy model, which highlights the importance of belief in an individual's intention to engage in action (Azjen & Fishbein, 1980).

Therefore, an individual's beliefs and intentions about ethical matters are influenced by the knowledge acquired in an ethics classroom. Furthermore, within the realm of ethics, the element of belief and intention assumes a crucial part in shaping an individual's traits and approach to ethical matters.

The questionnaire survey items utilized in this study were obtained from the research conducted by Leiserowitz et al. (2005). The survey items employed by Leiserowitz et al. to assess the degree of belief, attitude, and intention about sustainable development. Therefore, to align with the requirements of the study, the survey items within the questionnaire were adjusted to emphasize the ethical consideration in the creativity and innovation process among the teachers.

The questionnaire was divided into 3 parts: Measuring a) Beliefs, b) Attitudes and c) Intentions. Five-point Likert Scale used – 1 represents Strong Disagree and 5 represents Strong Agree.

A questionnaire was delivered to 255 Malaysian secondary school teachers as part of this study's quantitative approach utilizing a stratified sampling method. The main criteria of

the selection were (i) the sample should have more than 5 years of teaching experience and (ii) the teachers should be involved actively in creative and innovation activities.

All the items of the questionnaire were validated by three educational experts who have more than 10 years of experience. A pilot study was conducted among 30 teachers in Malaysia who were not part of the real study which was chosen using the same criteria as the real study samples. The pilot study was carried out to determine the reliability of the items in the questionnaire. The pilot study revealed that the Cronbach Alpha value for Part A: Beliefs was 0.745; Part B: Attitude was 0.772 and Part C: Intention was 0.801. These values which are more than 0.700 showed that all the parts of the questionnaire are reliable.

Results and Discussion

The survey results were analyzed using SPSS, which stands for Statistical Package for Social Science. This software was utilized for doing descriptive analysis. All participants in the study provided complete responses to all items in the questionnaire, resulting in a 100% response rate. The Shapiro-Wilk test indicates the data exhibited a normal distribution. The Cronbach Alpha values for the reliability coefficients of Part A: Beliefs, Part B: Attitude, and Part C: Intention were determined to be 0.745, 0.751, and 0.788, respectively, indicating that they were reliable.

Table 1 shows the mean score (M) and standard deviation (SD) of the responses obtained from the participants in this research investigation.

Table 1
Mean Scores and Standard Deviation

| Part A: Belief | | |
|------------------|--|------------------------------------|
| No | Items | Mean (M) / Standard Deviation (SD) |
| A1 | I feel obliged to make sure my inventions do not cause any harm to the environment. | 3.77/0.175 |
| A2 | I feel it is necessary to bring inclusivity for all students when utilizing my creativity and innovative skills. | 2.31/0.055 |
| A3 | I think I should be responsible for respecting the Intellectual Property rights in my creative outputs. | 2.24/0.012 |
| A4 | I believe the inventions of my educational resources must be accessible to all students regardless of their backgrounds. | 2.78/0.196 |
| A5 | I always make sure that my inventions adhere to the ethical values. | 2.57/0.125 |
| Part B: Attitude | | |
| B1 | I am aware of the ethical values in creative and innovative outputs. | 2.43/0.130 |
| B2 | I am sensitive to the environmental impact that may be caused via my inventions. | 3.85/0.011 |
| B3 | I am aware of other's ideas and inventions rights when creating my educational resources. | 2.41/0.114 |

| | | |
|---------------------------|--|------------|
| B4 | I am conscious that every innovation that I make should be accessible to all students. | 2.23/0.103 |
| B5 | I am confident that my inventions adhere to ethical values. | 2.41/0.091 |
| Part C: Intentions | | |
| C1 | I prefer to create educational resources that consider all the needs of my students in the classrooms. | 2.81/0.122 |
| C2 | I intend to produce innovations that are designed with the learning objectives and curriculum. | 4.22/0.017 |
| C3 | I prefer to innovate educational resources that adhere to ethical principles. | 2.50/0.053 |
| C4 | I prefer to share my innovation's concept with other peers in the school. | 2.31/0.120 |
| C5 | I strive to create innovations for teaching and learning that promote equality. | 2.55/0.023 |

Referring to Table 1; it is clear that the respondents of the study have had low mean scores in their beliefs, attitudes, and intentions towards ethics in the creative and innovative process except on environmental Issues and inventions that follow the learning objectives and curriculum.

It is vital to incorporate ethical values into the creativity and innovation process to create a community of teachers who strive to create innovations in education that adhere to ethics and serve the well-being of society.

The incorporation of ethical issues into creative practices yields substantial impacts on learners, colleagues, and the general education system. The implementation of ethical practices within educational settings cultivates a conducive learning atmosphere, which in turn facilitates the establishment of trust and respect among teachers and students (Geletu, 2022). Fair and inclusive educational experiences are advantageous for students as they guarantee equal opportunity for achieving achievement (Tatto, 2021). The adoption of ethical practices by colleagues fosters a culture characterized by honesty and professionalism. The incorporation of ethical considerations in creative and innovative practices play a pivotal role in enhancing the quality of education by ensuring adherence to high standards of excellence and accountability.

To uphold ethical principles while fostering innovation, educators are expected to:

- a. Prior to implementing their creative practices, it is crucial for individuals to carefully consider and analyze the potential ethical consequences that may arise from these practices.
- b. It is imperative to obtain informed consent from both students and parents before utilizing technology or disclosing student work.
- c. It is imperative to guarantee equitable access to resources and opportunities for every student, considering variables such as socioeconomic status or exceptional educational requirements (Malone, 2020).
- d. To foster academic integrity, it is crucial to effectively communicate expectations and offer suitable advice throughout the evaluation process.
- e. Engage in regular professional development activities to remain informed about contemporary ethical norms and optimal approaches in creative pedagogical techniques.

Conclusion

The findings of the study clearly showed that the beliefs, attitudes, and intentions towards ethics in creative and innovative processes among Malaysian teachers are still low except in the environmental issue and adhering to the learning objectives and curriculum.

Ethical considerations play a crucial role in the implementation of novel practices within the teaching profession. Through the adherence to ethical principles, educators establish a secure and all-encompassing educational setting, guaranteeing impartiality, reverence, and equitable prospects for every student. Through successfully navigating the many ethical dilemmas that arise within the educational context and steadfastly upholding their moral principles, educators play a significant role in enhancing the overall quality of the education system. In doing so, they cultivate a culture characterized by excellence and a strong sense of responsibility.

References

- Amabile, T. M. (2018). *Creativity in context: Update to the social psychology of creativity*. New York, Routledge.
- Azjen, I. & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- First Century. New York: Routledge.
- Flowerree, A.K. (2017). Agency of Belief and Intention. *Synthese*. Vol. 194, no. 8, pp. 2763-2784.
- Geletu, G. M. (2022). The effects of teachers' professional and pedagogical competencies on implementing cooperative learning and enhancing students' learning engagement and outcomes in science: Practices and changes. *Cogent Education*, 9(1), 2153434.
- Gino, F., & Ariely, D. (2012). The dark side of creativity: original thinkers can be more dishonest. *Journal of personality and social psychology*, 102(3), 445.
- Henriksen, D., Creely, E., Henderson, M., & Mishra, P. (2021). Creativity and technology in teaching and learning: a literature review of the uneasy space of implementation. *Educational Technology Research and Development*, 1-18.
- Leiserowitz, A.A., Kates, R.W., Parris, T.M. (2005). *Do Global Attitudes and Behaviors Support*
- Malone, D. M. (2020). Ethics education in teacher preparation: a case for stakeholder responsibility. *Ethics and Education*, 15(1), 77-97.
- Maxwell, B., & Schwimmer, M. (2016). Professional ethics education for future teachers: A narrative review of the scholarly writings. *Journal of Moral Education*, 45(3), 354-371.
- McLaren, R. B. (1993). The dark side of creativity. *Creativity Research Journal*, 6, 137-144.
- Motivational Influences. In: Albarracin, D., Johndon, B.T., Zanna, M.P. (Eds). *The Handbook of Attitudes*. New York: Psychology Press, pp. 273-322.
- Perloff, R.M. (2016). *The Dynamics of Persuasion: Communication and Attitudes in the Twenty-*
- Runco, M. A., & Nemiro, J. (2018). Creativity in the moral domain: Integration and implications. in *Festschrift for Howard E. Gruber* (pp. 91-105). Routledge.
- Sawyer, K. (2019). *The creative classroom: Innovative teaching for 21st-century learners*. Teachers College Press.

Sustainable Development? Environment: Science and Policy for Sustainable Development. Vol. 47, no. 9, pp. 22-38.

Tatto, M. T. (2021). Professionalism in teaching and the role of teacher education. *European Journal of Teacher Education*, 44(1), 20-44.

Wyer, R.S., Albarracin, D. (2005). Belief Formation, Organization, and Change: Cognitive and Motivational Influences. In: Albarracin, D., Johndon, B.T., Zanna, M.P. (Eds). *The Handbook of Attitudes*. New York: Psychology Press, pp. 273-322.

HIGHER EDUCATION AND TEACHER EDUCATION

1. SELF-REGULATORY SKILLS AND THE ROLE OF PART-TIME WORKING IN STUDENT TEACHERS

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Abstract

Background and aims

The teacher shortage is a common problem internationally (den Brok et al., 2017; Sutchter et al., 2019) – and also in Switzerland. To counter this problem, student teachers are encouraged to work as teachers during their studies. Public concerns were raised about whether teacher students are sufficiently prepared for teaching. We investigate whether part-time working students differ from non-working student teachers in self-regulated learning (SRL) skills which might help them jump-start their professional development. We hypothesize that student teachers with a particular skill set self-select into part-time work.

Methods

108 students filled out an online questionnaire on metacognitive self-regulation and 68 on time management and effort regulation. All scales stem from the Motivated Strategies for Learning Questionnaire (MSLQ, Pintrich et al., 1991). We used confirmatory factor analysis to validate the scales. Further, multiple-indicator-multiple-causes (MIMIC) models were used to analyse the effects of working status and two control variables (age and institute of study) on the three latent SRL constructs.

Results

Working status is a significant and the most consistent predictor for all three SRL scales. The model fit for metacognitive self-regulation was problematic but good for time management and effort regulation.

Conclusions

The concern of whether the part-time working student teachers are sufficiently prepared for their jobs might be mitigated by the argument that those students who choose to work part-time have higher self-regulated learning skills and might thus acquire faster the necessary professional skills that it takes to become good teachers.

Keywords: *Self-regulation; learning habits; working part-time; teacher education.*

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Introduction

At present, as the start of each school year approaches, reports about the teacher shortage have become increasingly ubiquitous. Even in high-income countries such as the Netherlands (Paudal, 2022), France, Germany, the UK (Albert et al., 2022), Japan (Takahama & Ujioka, 2022), and the United States (Natanson, 2022), newspapers regularly feature articles addressing the scarcity of educators. Switzerland is no exception to this trend, with projections indicating a deficit of 9,000 to 13,000 teachers by 2031 (Davis Plüss, 2022). Switzerland addresses the problems arising in the short run mainly by two measures. First, by employing people without a teacher diploma and, second, by letting student teachers teach while they are still pursuing their teacher diploma (Davis Plüss, 2022). In this article, we will focus on the part-time working student teachers. The aforementioned measures inevitably raise the question of the job preparedness of those newly employed teachers. Teaching preparedness is a concept difficult to grasp and measure. Generally, beginning teachers are expected to demonstrate the same competencies as experienced teachers (Mohamed et al. 2017), even though it is also undisputed that beginning teachers must acquire new competencies during their first years, during the so-called ‘induction phase’ (Reynolds 1992). Mohamed et al. (2017) constructed an international teacher competency framework, which describes the expected competencies of experienced and new teachers. This framework encompasses the domains of knowledge and instructional expertise, pedagogical expertise, coping with students’ diversity, collaboration with colleagues, parents, and community, professional development attitude, and the development of an ethical stand. However, none of these aspects can be fully covered in a teacher education program. In fact, most of them need to be advanced during real-life experiences or are only applicable when in a teaching position. This is also why many beginning teachers call their first year a ‘reality shock’ (Vonk, 1995) – because their teaching experiences differ starkly from what they were prepared for. Thus, Vonk (1995) developed a framework for beginning teachers’ professional development, where the professional development is a product of developments in a personal (e.g., self-concept and ideas about good practice), knowledge and skills (e.g., pedagogical content, classroom management, and teaching skills), and an ecological dimension (e.g., new responsibilities). In this paper, instead of trying to measure teaching preparedness in part-time working and non-working student teachers, we chose to analyse whether part-time working students differ in their dispositions for professional development from their non-working counterparts.

A prerequisite for durable learning is having self-regulated learning habits. The vast literature on self-regulated learning supports the claim that self-regulated learners are more

successful at learning and acquiring skills (for academic skills: Jansen et al., 2019; Panadero, 2017; for physical skills: Cleary et al., 2006). Combining the need for professional development and findings of better learning performance of self-regulated learners, our primary aim was to analyse whether a discernible pattern exists in students choosing to work part-time while pursuing their studies. Suppose we were to find that those who work part-time exhibit stronger self-regulated learning skills than their non-working counterparts, it might imply a deliberate selection process in favor of part-time employment from better-prepared students. Therefore, our research question is whether part-time working student teachers show higher self-regulated learning habits than student teachers not working part-time.

However, self-regulated learning is an umbrella term that encompasses behavioral, cognitive, metacognitive, affective, and motivational aspects of learning (Boekaerts, 1999; Pintrich, 1995; Zimmerman, 1986) and we need to specify which aspects we deem important for our context. In their meta-analysis, Credé and Phillips (2011) find that general learning strategies (like metacognitive self-regulation, time management, and effort regulation) are more strongly related to academic performance than specific learning strategies (like elaboration, rehearsal, organization, help-seeking, or peer learning). We assume that time management (TM), effort regulation (ER), and metacognitive self-regulation (MSR) are also critical for successful learning in teacher education and developing new skills while working as a teacher. Teacher students who work part-time need high TM skills because they must square the schedules from their work and their studies, juggling e.g., school lessons, preparation phases, parent and school meetings in school, lectures and seminars, studying, and assignments at university. ER can be seen as a motivational aspect of self-regulation (Pintrich, 1999). It is of utmost importance because everything needs to be done, even those things that the student teachers dislike. Finally, MSR is key for successful individual learning during the studies of the student teachers. Students with higher MSR skills plan, monitor, and regulate their learning process, which is a way of studying more strategically and efficiently (Weinstein et al., 2011).

Methods

Sample and data collection

Data were gathered from a Swiss University of Teacher Education using an online questionnaire. The data collection phase lasted from October 2022 until March 2023. The questionnaire contained several scales related to learning attitudes and strategies. The students could choose to fill out different sections of the questionnaire. All three scales presented here are from the Motivated Strategies for Learning Questionnaire (MSLQ, Pintrich et al. 1991), one of the most often used self-assessment questionnaires for learning strategies. Due to the free choice, we have a different sample size for MSR (section of [meta-]cognition) and for TM and ER (section of resources, sections according to Pintrich, 1995). Of the 108 students who filled out the MSR scale, 94 are women and 14 are men. The age range spans from 18 to 60 years (mean 29.7, standard deviation 10.3). Fifty-two student teachers are from the Institute of Special Education and 56 are from either the Institute of Primary or Lower Secondary Education. Forty-five teacher students of this sample work part-time. The TM and ER scales were filled out by 68 student teachers, of which 58 are women and 10 are men. The age range is between 19 and 60 years (mean 32.1, standard deviation 11.1). Forty student teachers are

from the Institute of Special Education and 28 are from either the Institute of Primary or Lower Secondary Education. In this sample, 40 student teachers work part-time.

Measures

Our dependent variables are composed of the questionnaire scores. We used our own German translation of the three MSLQ scales metacognitive self-regulation (original example item: “Before I study new course material thoroughly, I often skim it to see how it is organized”), effort regulation (original example item: “I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do”), and time and study environment (original example item: “I make sure I keep up with the weekly readings and assignments for this course”). The items were translated into German by the first author, a native German speaker. Another researcher who is unfamiliar with this project and bilingual in English and German translated the German version back to English. The second author of this article, a native English speaker, compared the original and back-translated versions. The two versions were deemed substantially equivalent. The scale for time and study environment was shortened to contain only the six items on time management, i.e., the two items on study environment were disregarded because – from a logical perspective – they do not fit in a unidimensional scale with time management. The items could be rated on a 7-point Likert scale with labelled extreme points (1 is “not at all me” and 7 is “totally me”).

Prior to starting the online questionnaire, the student teachers filled out a questionnaire on their sociodemographic background, which represent the independent variables in our study. They could indicate whether they studied full-time, part-time, or whether they work in parallel to their studies as a teacher. For our analyses, we compare students working part-time with students not working part-time. Students not working part-time mainly study full-time (73% for MSR and 68% for TM and ER). Additionally, the student teachers provided information on their age, gender, and institute. At this University of Teacher Education, four different institutes exist: the Institute for Primary Education, the Institute for Lower Secondary Education, the Institute for Special Education, and the Institute for Upper Secondary Education. For reasons concerning the curricula, the four participants from the Institute for Upper Secondary Education were excluded from the sample of MSR (there were no participants in the TM and ER sample from Upper Secondary Education). Further, students from Primary and Lower Secondary Education were grouped together and compared to students from the Institute of Special Education. The teacher diplomas for Primary and Lower Secondary Education are self-contained study degrees, and either one of them is a prerequisite to start the teacher diploma for Special Education. Thus, being willing to invest more time into training after a teacher diploma was already achieved might also indicate higher motivation and study skills for students in the Special Education program. This also means that these people are more experienced students since they have already completed a program. Therefore, this dichotomized variable was used as a control variable. Furthermore, age was used as a control variable. Non-traditional student teachers who are willing to start their studies later in life might also display a characteristic pattern of skills and motivation that should be controlled. Gender was disregarded for the analyses, as the gender distribution in the two samples is too unequal. Therefore, no statement can be made about whether men and women differ in their self-

regulated learning. Still, even though the gender distribution in our sample is a little bit too much in favor of women, it replicates the general gender distribution of Swiss teachers.

Data analysis

Despite the MSLQ being one of the most often-used questionnaires for assessing learning strategies in college students, its validation has been questioned (Chen & Smith, 2017), particularly the scale for MSR (Dunn et al., 2012). Thus, using simple sum scores of the scales might be problematic and we therefore decided to use the latent scores of the concepts of interest, as there, measurement errors are considered. In the first step, confirmatory factor analyses (CFA) were performed using the R-package lavaan (Rosseel, 2012). CFA solutions were judged referring to the cut-off values from Hu and Bentler (1999), i.e., close to 0.95 for CFI, close to 0.08 for SRMR, and close to 0.06 for RMSEA. Additionally, a non-significant p-value for the χ^2 -value with an alpha level of 0.05 was deemed a good global fit. The χ^2 -test measures the discrepancies between the sample and the fitted covariance matrices (Hu & Bentler, 1999). The factor solutions were modified to reach a good model fit (items with factor loading below 0.3 were excluded and error terms were covaried if theoretically justifiable). Once factors with good model fit were found, we estimated for each latent variable multiple indicators multiple causes (MIMIC) models, by including the independent variables working status, institute of study, and age as causes for the latent variable. A MIMIC model is defined as a latent factor that is indicated by some observed variables (the CFA structure) and that is predicted (caused) by some exogenous variables (the independent variables). Non-significant causes were excluded, and the MIMIC model was rerun with the remaining significant predictors. In the results section, we only report the model fits of the final CFA solutions and present the final MIMIC models. As the items of all scales were multivariately skewed (using the Mardia test from R-package psych, Revelle, 2022), we used the Satorra-Bentler correction (Kline, 2016) for model estimation.

Results

Table 1 presents the descriptive statistics of the dependent factors. These statistics were calculated including only the items from the final factor solutions. For MSR, there were ten items remaining, for TM all six items and for ER all four items were used. Student teachers rate themselves generally rather high in their self-regulatory learning skills (see mean values). Also, MSR, TM, and ER show moderate to strong factor correlations (between 0.49 for MSR and TM to 0.74 for TM and ER). The reliability of the three factors is good, ranging from 0.75 to 0.80.

In the CFAs, we reached a satisfying to good model fit for all three factors. The fit indices are presented in Table 2. For the factor of MSR, we excluded two items that had factor loadings of less than 0.3. Two pairs of error terms were correlated. These correlations can theoretically be justified: two items are about making up questions or asking yourself questions for better understanding, and two items are about determining which concepts you do not understand yet and setting goals for studying.

Table 1

Descriptive statistics of the dependent variables

| | Correlations | | | n | Mean | SD | Min | Max | Cronbach's |
|------------------|-------------------|------|------|-----|------|------|------|------|------------|
| | MSR | TM | ER | | | | | | |
| MSR ^a | 1.00 | – | – | 108 | 4.30 | 0.88 | 2.10 | 6.30 | 0.75 |
| TM ^b | 0.49 ^d | 1.00 | – | 68 | 5.54 | 0.96 | 3.00 | 7.00 | 0.77 |
| ER ^c | 0.60 ^d | 0.74 | 1.00 | 68 | 5.14 | 1.24 | 2.00 | 7.00 | 0.80 |

^a MSR: metacognitive self-regulation; ^b TM: time management; ^c ER: effort regulation; ^d These correlations were calculated in a simultaneous confirmatory factor analysis with the 59 student teachers who filled out both questionnaire sections. For the correlation of TM and ER, the full sample of 68 student teachers was used.

Table 2

Fit indices for confirmatory factor analyses of the three dependent variables

| Factor | 2 | df | p | CFI | RMSEA | SRMR |
|------------------|------|----|-------|-------|-------|-------|
| MSR ^a | 46.7 | 33 | 0.057 | 0.923 | 0.061 | 0.063 |
| TM ^b | 11.9 | 8 | 0.157 | 0.959 | 0.090 | 0.054 |
| ER ^c | 0.8 | 1 | 0.374 | 1.000 | 0.000 | 0.016 |

^a MSR: metacognitive self-regulation; ^b TM: time management; ^c ER: effort regulation.

Table 3

Fit indices for the final MIMIC models

| Factor | Predictors | 2 | df | p | CFI | RMSEA | SRMR |
|------------------|------------------------|------|----|-------|-------|-------|-------|
| MSR ^a | WPT ^d , age | 90.6 | 51 | 0.001 | 0.835 | 0.083 | 0.076 |
| TM ^b | WPT ^d | 14.6 | 13 | 0.332 | 0.985 | 0.044 | 0.054 |
| ER ^c | WPT ^d | 5.4 | 4 | 0.245 | 0.986 | 0.073 | 0.055 |

^a MSR: metacognitive self-regulation; ^b TM: time management; ^c ER: effort regulation; ^d WPT: working part-time.

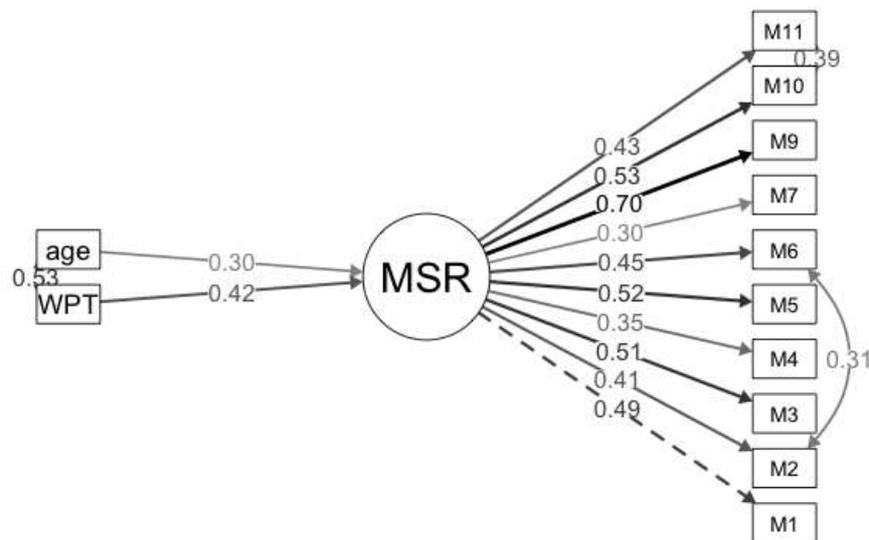
In both cases, the correlation of error terms was introduced for an item from the planning phase that is substantively related to an item from the monitoring phase. For the factor of TM, no items had to be excluded. However, one pair of error terms was correlated due to a lower item correlation than expected (see Figure 2). The two items are substantively very similar; however, one item is positively and the other negatively formulated. The reverse coding of the negatively formulated item might have led to this lower-than-expected item correlation. For the factor of ER, again no items were excluded, and one pair of error terms was correlated. This factor consists of two positively formulated items and two negatively formulated items. We had a good model fit without any modifications except for the RMSEA value, which was 0.165. The modification consisted of correlating the error terms of the two positively formulated items.

The model fit for the MIMIC models stayed good for ER, became even better for TM, and became substantially worse for MSR (p-value of and CFI). The MIMIC model fits are presented in Table 3. All three factors are positively predicted by the working part-time (WPT)

status, i.e., student teachers who work part-time score significantly higher in the latent variables of MSR, TM, and ER. For MSR, additionally, age is positively related to the latent variable, meaning that older students score higher in MSR. The MIMIC model takes into account the positive correlation of 0.53 between age and working status. Thus, age and working status are predictors of MSR independently of each other.

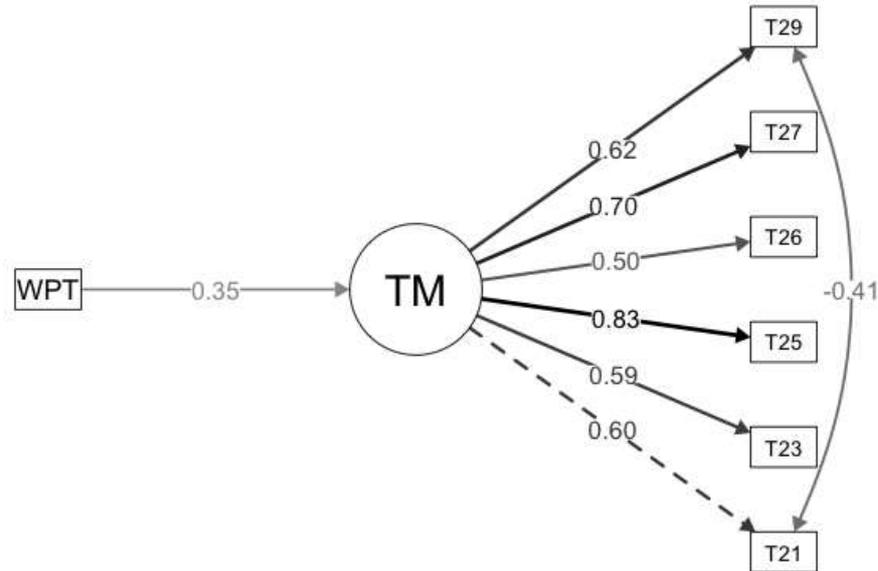
For TM, on their own, institute and working part-time are predictive of the latent variable. However, taken together, they are not significant anymore ($p_{WPT} = 0.16$, $p_{Inst} = 0.2$). This is due to the high correlation between the two variables; students from the Institute of Special Education are also more likely to work part-time. Analysed separately, the effect of working part-time is almost double as strong (standardized beta of 0.35) as the effect of the institute (standardized beta of 0.20).

Figure 1
MIMIC model for the factor metacognitive self-regulation



Note. WPT: working part-time; MSR: metacognitive self-regulation; M1 to M11: indicator variables. See the appendix for individual item formulations.

Figure 2
MIMIC model for the factor time management



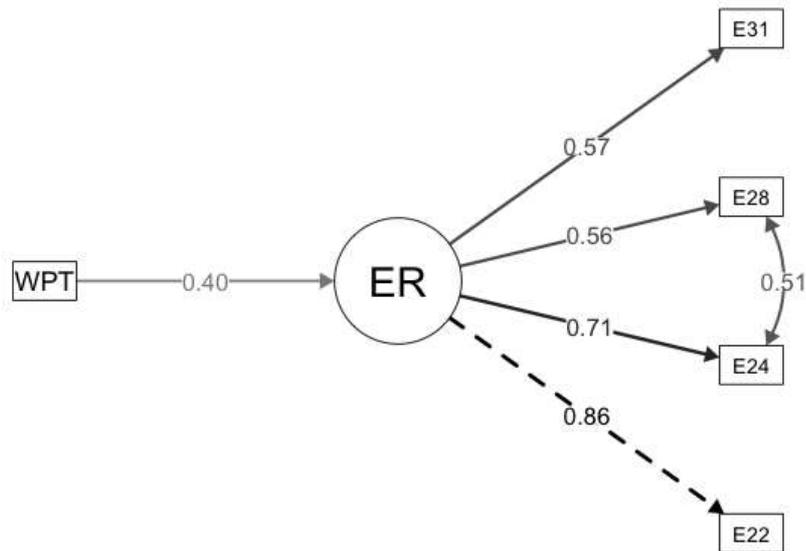
Note. WPT: working part-time; TM: time management; T21 to T29: indicator variables. See the appendix for individual item formulations.

For ER, WPT is the only predictive exogenous variable, whether we look at the control variables separately or all together. Figures 1 to 3 show the MIMIC models, displaying the effect strengths from the exogenous variables on the latent variable, and the factor loadings from the latent variable to the indicator variables.

Discussion

This paper aims to inform on two grounds: on a substantive and on a methodological one. From a substantive point of view, there is a teacher shortage in Switzerland and new ways of teacher recruitment are being implemented. In the public debate, the issue has been raised of whether those new teachers are sufficiently prepared for their jobs. Therefore, we analysed whether part-time working student teachers differ from non-working student teachers. From a methodological point of view, the existing instruments to assess self-regulated learning in college students – despite their frequent use – stand on psychometrically shaky grounds (see Tock & Moxley, 2017; Chen & Smith, 2017 for the MSLQ; Chacko & Huba, 1991 for the Learning and Study Strategies Inventory; or Harrison & Vallin, 2018 for the Metacognitive Awareness Inventory [MAI]). Therefore, we also analysed the factor structure of the used dependent variables.

Figure 3
MIMIC model for the factor effort regulation



Note. WPT: working part-time; ER: effort regulation; E22 to E31: indicator variables. See the appendix for individual item formulations.

We find that part-time working student teachers score significantly higher on self-regulated learning skills than non-working student teachers. Working status was the most predictive exogenous variable for all three measures of self-regulated learning – metacognitive self-regulation, time management, and effort regulation. The other control variables, i.e., age and institute, were not consistently linked to self-regulated learning aspects. That is, in addition to the working status as a significant variable, older students also score significantly higher on MSR than younger students. And for time management, if we control simultaneously for the institute in which the students study, then the working status is not a significant predictor anymore. However, if analysed separately, the effect of working status is almost double as strong as the effect for the institute of study. These control variables were selected to account for potential intercorrelations among age, institute of study, and working status. Notably, age and institute of study are correlated to each other, as students at the Institute of Special Education tend to be older due to the prerequisite of holding a diploma in Primary or Lower Secondary Education. Additionally, students at the Institute of Special Education already have a teacher diploma and thus are more likely to already hold a teaching position while pursuing their studies. Also, all three variables might be related to higher self-regulated learning skills – but for different reasons. Students from the Institute of Special Education show persistence in their study career, which is related to effort regulation. The effect of age might be created due

to a selection bias as only older people with certain learning characteristics decide to return to university (remember, our sample includes students who are up to 60 years old). As for working status, it might be that only students with good self-regulated learning skills can afford to work part-time. Overall, our results support the claim that working part-time is the primary factor associated with higher scores in self-regulated learning aspects, and not age or institute. The concern of whether the part-time working student teachers are sufficiently prepared for their jobs might be mitigated by the argument that those students who choose to work part-time have higher self-regulated learning skills and might thus acquire the necessary professional skills that it takes to become good teachers faster. Thus, student teachers who work part-time might be a viable short-term solution to the problem of teacher shortage, as the student teachers who will work part-time are a selection of all current student teachers based on their good self-regulated learning skills and they can start their professional development more concretely early on in their teacher career. It is, of course, not a long-term solution for teacher shortage as those student teachers would go into the teaching profession anyway, and what is needed are more teachers (or a way of how a teacher can teach more students in a student-centred fashion).

However, with our study design, we cannot clarify causality. In fact, due to our cross-sectional data, we cannot differentiate whether working student teachers have higher self-regulatory skills a priori, and therefore can engage in working and studying at the same time, or whether working student teachers acquire the self-regulatory skills at work. Of course, also student teachers who are not working part-time have practical experiences during their studies (practical experiences take up to one fourth of study time in Swiss teacher education programs). However, there might be a difference in the intensity or the sense of responsibility during regular work and during practical experiences in schools during the studies. Accepting the claim that it is not just about preparedness because even students who finished the full teacher education program face a ‘reality shock’ when they enter the teaching profession, but about the prerequisites for professional development; then this second interpretation would even more strongly mitigate the public concerns, as it would show that once student teachers enter the workforce, they adapt to their behavioral demands and show more self-regulated learning habits, which in turn will help them in their professional development. Also, with this latter interpretation, our results might even extend to people entering the teaching profession who do not have a teacher diploma and who are not (yet) in a formal teacher education program. However, this can only be a speculation as we do not have any data on this subsample of newly employed teachers. Very importantly, the point we make is not that people should simply start working as teachers and they will develop the necessary skills to be good teachers on the go. Rather, what we argue is that we cannot exclude that student teachers developed their self-regulatory learning habits on the job. We regard formal formation in a teacher education program as essential for good teaching. Furthermore, to address public concerns and to get a better picture of the current situation, research should include new teachers who teach without a teacher diploma. However, this subsample might be more difficult to track compared to student teachers who are still attending university.

This study also dealt with the psychometric validation of the scales used. Regarding the criticized scale of MSR (Chen & Smith 2017, Dunn et al. 2012), we find in our study a very

bad model fit using all 12 original indicator variables ($\chi^2 = 102.3$, $df = 54$, $p < .001$, CFI 0.747, RMSEA = 0.092, SRMR = 0.086). Thus, with our sample, this scale does not work as originally proposed by Pintrich et al. (1991). In fact, Duncan and McKeachie (2005) report that the MSR of the MSLQ should capture the three metacognitive subscales of planning, monitoring, and regulation. However, not even in the original study could they find these factors, which is why all 12 items are packed together as one factor. But 12 is a rather high number of items to capture a unidimensional construct. In our data, two variables (M8 and M12, see appendix for content) had almost no correlation with most of the other ten items and were thus excluded. Still, further modifications were necessary to reach a good model fit. Modifying the model bears the danger of overfitting – i.e., exploiting peculiarities of the data from a sample that might not generalize to other samples with the same indicator variables. For this reason, it must be clearly stated that the factor assessed here in the final model might be different from and not strictly comparable with the factors assessed with the full MSR scale in other studies. Nevertheless, the results are still valid for our sample and for the indicator variables used in our final model. Furthermore, thanks to the factor loadings produced through the CFA, we know which items are most characteristic of the assessed MSR factor and which items play only a minor role. Thus, thinking through a topic and deciding what to learn from it rather than just reading the materials over when studying (the content of item M9) is the strongest indicator of MSR, with a factor loading of 0.7. This means that our MSR factor explains about 50% of the variance in the responses for this item (which is the square of the factor loading). We also see that the MSR factor only explains between 9% (for M7) and 28% (for M10) of the other items' response variances, which is very low (Bandalos, 2018). In sum, we find that working status and age predict scores of an MSR factor that is constituted by generally low-loading indicator variables. For further studies including metacognitive self-regulation or a similar construct, it is advisable to rework the factor structure, for example, by reducing the number of items, rephrasing some of the items, and/or splitting the factor into various aspects of metacognitive self-regulation (cf. Tock & Moxley, 2017; or different aspects like in the MAI, however, this factor structure could also not yet be confirmed, see Harrison & Vallin, 2018).

Regarding the other two factors – time management and effort regulation – the psychometric validation worked much better. For TM, we already made a substantively important selection of items prior to analysis, as, from a logical point of view, the study environment (i.e., whether you have a fixed study place and whether you can work in a concentrated manner while at your study place) is independent of time management. Both factors, TM and ER, work well in the CFA and in the MIMIC model. Supporting the construct validity of TM, the highest loading item is “I make sure I keep up with the weekly readings and assignments for this course”, which should also be the core of a time management factor in an academic context. Furthermore, we find that the three latent variables are moderately to strongly correlated with each other, indicating that they might belong to some overarching second-order factor, such as good general learning strategies or requirements.

In conclusion, despite some psychometric issues especially with the MSR factor, the fact that the other two factors could be analysed reliably and that we found working status to be an important factor for all three correlated factors seems to paint an empirically sound picture that better self-regulated learning skills are positively related with working part-time as a teacher. The direction of causality remains open, but either way, our results should mitigate

the public concerns about inadequate teaching preparedness of part-time working student teachers.

References

Albert, E., Weider, T., Hivert, A-F., Bonnel, O., & Morin, V. (2022, September 1). Teacher shortages; A common problem throughout Europe's schools. *Le Monde*.

https://www.lemonde.fr/en/international/article/2022/09/01/teacher-shortages-a-common-problem-throughout-europe-s-schools_5995460_4.html

Bandalos, D. L. (2018). *Measurement theory and applications for the social sciences*. The Guilford Press.

Boekaerts, M. (1999). Self-regulated learning: Where we are today. *International Journal of Educational Research*, 31, 445–457. [https://doi.org/10.1016/S0883-0355\(99\)00014-2](https://doi.org/10.1016/S0883-0355(99)00014-2)

Chacko, S. B. & Huba, M. E. (1991). Validation of the Learning and Study Strategies Inventory with a sample of students in nursing. *NACADA Journal*, 11(2), 5–13.

<https://doi.org/10.12930/0271-9517-11.2.5>

Chen, C. & Smith, S. M. (2017). Multiple iterations of MSLQ validation: A contemporary assessment. *Issues in Information Systems*, 18(3), 149–160.

https://doi.org/10.48009/3_iis_2017_149-160

Cleary, T. J., Zimmerman, B. J., & Keating, T. (2006). Training physical education students to self-regulate during Basketball free throw practice. *Research Quarterly for Exercise and Sport*, 77(2), 251–262. <https://doi.org/10.1080/02701367.2006.10599358>

Credé, M. & Phillips, L. A. (2011). A meta-analytic review of the Motivated Strategies for Learning Questionnaire. *Learning and Individual Differences*, 21, 337–346.

<https://doi.org/10.1016/j.lindif.2011.03.002>

Den Brok, P., Wubbels, T., & van Tartwijk, J. (2017). Exploring beginning teachers' attrition in the Netherlands, *Teachers and Teaching*, 23(8), 881–895.

<https://doi.org/10.1080/13540602.2017.1360859>

Duncan, T. G. & McKeachie, W. J. (2005). The making of the Motivated Strategies for Learning Questionnaire. *Educational Psychologist*, 40(2), 117-128.

https://doi.org/10.1207/s15326985ep4002_6

Dunn, K. E., Lo, W.-J., Mulvenon, S. W., & Sutcliffe, R. (2012). Revisiting the Motivated Strategies for Learning Questionnaire: A theoretical and statistical reevaluation of the metacognitive self-regulation and effort regulation subscales. *Educational and Psychological Measurement*, 72(2), 312–331. <https://doi.org/10.1177/0013164411413461>

Davis Plüss, J. (2022, October 14). Switzerland faces acute shortage of teachers over next decade. *Swissinfo.ch*. <https://www.swissinfo.ch/eng/business/switzerland-faces-acute-shortage-of-teachers-over-next-decade/47978778>

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>

Harrison, G. M. & Vallin, L. M. (2018). Evaluating the metacognitive awareness inventory using empirical factor-structure evidence. *Metacognition and Learning*, 13(1), 15–38. <https://doi.org/10.1007/s11409-017-9176-z>

Jansen, R. S., van Leeuwen, A., Janssen, J., Jak, S., & Kester, L. (2019). Self-regulated learning partially mediates the effect of self-regulated learning interventions on achievement in higher education: A meta-analysis. *Educational Research Review*, 28, 1–20. <https://doi.org/10.1016/j.edurev.2019.100292>

Kline, R. B. (2016). *Principles and practice of structural equation modeling*. The Guilford Press.

Mohamed, Z., Valcke, M., & De Wever, B. (2017). Are they ready to teach? Student teachers' readiness for the job with reference to teacher competence frameworks. *Journal of Education for Teaching*, 43(2), 151–170. <https://doi.org/10.1080/02607476.2016.1257509>

Natanson, H. (2022, August 4). 'Never seen it this bad': America faces catastrophic teacher shortage. *Washington Post*. <https://www.washingtonpost.com/education/2022/08/03/school-teacher-shortage/>

Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. *Frontiers in Psychology*, 8. <https://doi.org/10.3389/fpsyg.2017.00422>

Paudal. (2022, August 28). Even after the summer holidays, many classes are without a teacher. <https://www.paudal.com/2023/08/28/even-after-the-summer-holidays-many-classes-are-without-a-teacher-economy/>

Pintrich, P. R. (1995). Understanding self-regulated learning. *New Directions for Teaching and Learning*, 63, 3–12. <https://doi.org/10.1002/tl.37219956304>

Pintrich, P. R. 1999. The role of motivation in prompting and sustaining self-regulated learning. *International Journal of Educational Research*, 31, 459–470. [https://doi.org/10.1016/S0883-0355\(99\)00015-4](https://doi.org/10.1016/S0883-0355(99)00015-4)

Pintrich, P. R., Smith, D. A. F., García, T., & McKeachie, W. J. (1991). A manual for the use of the motivated strategies for learning questionnaire (MSLQ). Ann Arbor, MI: University of Michigan.

Revelle, W. (2022). psych: Procedures for personality and psychological research (Version 2.2.3) [Statistical software]. Northwestern University, Evanston, Illinois, USA.
<https://CRAN.R-project.org/package=psych>

Reynolds, A. (1992). What is competent beginning teaching? A review of the literature. *Review of Educational Research*, 62(1), 1–35. <https://doi.org/10.3102/00346543062001001>

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, 27(35), 1–36. <http://dx.doi.org/10.14507/epaa.27.3696>

Takahama, Y. & Ujioka, M. (2022, May 29). Public schools in Japan suffering from record teacher shortage. *Asahi Shimbun*. <https://www.asahi.com/ajw/articles/14620602>

Tock, J. L. & Moxley, J. H. (2017). A comprehensive reanalysis of the metacognitive self-regulation scale from the MSLQ. *Metacognition and Learning*, 12, 79–111.
<https://doi.org/10.1007/s11409-016-9161-y>

Vonk, J. H. C. (1995). Conceptualizing novice teachers' professional development : A base for supervisory interventions. Paper presented at the Annual Meeting of the American Educational Research Association, 1–16.

Weinstein, C. E., Acee, T. W., & Jung, J.H. (2011). Self-regulation and learning strategies. *New Directions for Teaching and Learning*, 126, 45–53. <https://doi.org/10.1002/tl.443>

Zimmerman, B. J. 1986. Becoming a self-regulated learner; which are the key subprocesses? *Contemporary Educational Psychology*, 11(4), 307–313. [https://doi.org/10.1016/0361-476X\(86\)90027-5](https://doi.org/10.1016/0361-476X(86)90027-5)

Appendix

The German items of the following questionnaire were answered on a 7-point Likert scale.

| Item code | Item in English | Item in German |
|-----------|--|---|
| M1 | During class time I often miss important points because I'm thinking of other things. (reversed) | Während der Lehrveranstaltung verpasse ich häufig wichtige Punkte, weil ich an andere Sachen denke. |



| | | |
|-----|---|--|
| M2 | When reading for this course, I make up questions to help focus my reading. | Wenn ich etwas für diese Lehrveranstaltung lese, denke ich mir Fragen aus, die mir helfen, zielgerichtet zu lesen. |
| M3 | When I become confused about something I'm reading for this class, I go back and try to figure it out. | Wenn mich beim Lesen für diese Lehrveranstaltung etwas verwirrt, dann gehe ich zurück und versuche es zu verstehen. |
| M4 | If course materials are difficult to understand, I change the way I read the material. | Wenn der Lernstoff schwer zu verstehen ist, ändere ich die Art und Weise wie ich lese. |
| M5 | Before I study new course material thoroughly, I often skim it to see how it is organized. | Bevor ich neues Lehrmaterial gründlich studiere, überfliege ich es oft, um zu sehen, wie es aufgebaut ist. |
| M6 | I ask myself questions to make sure I understand the material I have been studying in this class. | Ich stelle mir selbst Fragen, um sicherzugehen, dass ich den Stoff, den ich in dieser Lehrveranstaltung gelernt habe, verstanden habe. |
| M7 | I try to change the way I study in order to fit the course requirements and instructor's teaching style. | Ich versuche, meine Lernweise an die Anforderungen der Lehrveranstaltung und den Unterrichtsstil des Dozenten/der Dozentin anzupassen. |
| M8 | I often find that I have been reading for class but don't know what it was all about. (reversed) | Ich stelle oft fest, dass ich etwas für die Lehrveranstaltung gelesen habe, aber nicht mehr weiss, worum es dabei ging. |
| M9 | I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying. | Ich versuche, ein Thema durchzudenken und zu entscheiden, was ich daraus lernen soll, anstatt es beim Lernen nur durchzulesen. |
| M10 | When studying for this course I try to determine which concepts I don't understand well. | Beim Lernen für diese Lehrveranstaltung versuche ich festzustellen, welche Konzepte ich nicht gut verstehe. |
| M11 | When I study for this class, I set goals for myself in order to direct my activities in each study period. | Wenn ich für diese Lehrveranstaltung lerne, setze ich mir Ziele, um meine Aktivitäten in jeder Lernphase zu steuern. |
| M12 | If I get confused taking notes in class, I make sure I sort it out afterwards. | Wenn ich beim Notizenmachen in der Lehrveranstaltung durcheinander komme, schaue ich, dass ich es hinterher in Ordnung bringe. |
| T21 | I make good use of my study time for this course. | Ich nutze meine Studienzeit für diese Lehrveranstaltung gut. |
| T23 | I find it hard to stick to a study schedule. (reversed) | Es fällt mir schwer, einen Lernplan einzuhalten. |
| T25 | I make sure I keep up with the weekly readings and assignments for this course. | Ich achte darauf, dass ich mit der Wochenlektüre und den wöchentlichen Aufgaben für diese Lehrveranstaltung mitkomme. |

| | | |
|-----|--|--|
| T26 | I attend class regularly. | Ich nehme regelmässig an der Lehrveranstaltung teil. |
| T27 | I often find that I don't spend very much time on this course because of other activities. (reversed) | Ich stelle oft fest, dass ich wegen anderer Aktivitäten nicht sehr viel Zeit für diese Lehrveranstaltung aufwende. |
| T29 | I rarely find time to review my notes or lecture materials before an exam. (reversed) | Ich finde selten Zeit, meine Notizen oder die Lektüre vor einer Prüfung durchzusehen. |
| E22 | I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do. (reversed) | Wenn ich für diese Lehrveranstaltung lerne, fühle ich mich häufig so faul oder gelangweilt, dass ich abbreche, bevor ich das, was ich vorhatte, zu Ende gebracht habe. |
| E24 | Even when course materials are dull and uninteresting, I manage to keep working until I finish. | Selbst wenn der Lernstoff langweilig und uninteressant ist, schaffe ich es, den Stoff durchzuarbeiten. |
| E28 | I work hard to do well in this class even if I don't like what we are doing. | Ich arbeite hart, um in dieser Lehrveranstaltung gut abzuschneiden, selbst wenn ich nicht mag, was wir tun. |
| E31 | When course work is difficult, I either give up or only study the easy parts. (reversed) | Wenn die Aufgaben schwierig sind, gebe ich auf oder lerne nur die leichten Teile. |

2. THE DYNAMICS OF INSTITUTIONAL TEACHER PROFESSIONAL DEVELOPMENT AT THE UNIVERSITY OF GDAŃSK: TEACHING IDENTITY AND TEACHING SKILLS IN FOCUS

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Abstract

Teacher Professional Development in the academic context can be discussed from three perspectives. The first one is focused on pre-service teachers (i.e., students), who are educated to teach subject disciplines. They are being tutored by academic teachers, so the second perspective is the one of regular scholars who both do research and teach. There is finally the third perspective: of teacher educators who provide space for other academics to develop their competencies and compose didactic identities as educators of students.

The following article aims to present the complex mechanics of developing the institutional space for the last two groups to interact professionally at the University of Gdańsk. First, to present its gradual solidification within the public HE institution since April 2021, when the interfaculty unit called the University of Gdańsk Centre for the Development of Teaching and Tutoring (CDDiT UG) was appointed. This shall be done qualitatively, with an autoethnographic approach, as the author represents the member of the Team and observes the processes from inside.

The second part of the article is devoted to the presentation of quantitative research results collected of using a questionnaire in June 2023 distributed among the participants of teacher training (TT) courses delivered by the Team of CDDiT UG. The results point to various aspects of the same process of professionalizing academic teaching, this time from the perspective of TT training recipients. The discussion hopefully sheds some new light on the phenomenon of institutionally ordained professional development of teachers in Higher Education institutions in Poland.

Keywords: *teacher education, Teacher Professional Development, academic teaching, subjectivation, teaching identity in HE institution*

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Introduction

Staff policy in higher education (HE) institutions apparently relates solely to the relationship between government intervention and the administration of a university. As Antonowicz (2005) notices, except for the fact that human resource management (HR) in public universities has always been politicized in line with the dominant political paradigm of central or decentralized state governance, it has contributed to three major spheres of academic institutional policies: recruitment strategies, scientific promotion of scholars and legal, as well

as economic position of academics. Consequently, the type of staff policy directly affects the level of well-being of the academic teachers and scholars, resulting in their professional performance and level of scientific and didactic achievements.

All these areas of academic staff policy management make direct use of adequate strategies dependent on either the tradition (i.e., models of academic “self-governance”) or institutional principles that apply to building career paths of the scholars in agreement with state regulations given at a given time. These, in turn, affect academic teachers’ satisfaction and identification with their workplace, both - to my mind as the author - being concomitant with high-quality academic performance in research and teaching. This all constitutes a framework for the introduction of institutional change.

This paper discusses the example of such an institutional change, the example of which is the appointment of a new organizational unit in the university, aimed at raising the quality of academic teaching. It has initiated an almost organic process of construing new power relations, action styles, governmentality, and subjectivation processes.

The development of the University of Gdańsk *Centre for the Development of Teaching and Tutoring* (later referred to as CDDiT UG) as a group of academic teachers and researchers of education dates to the years 2013/2014. The formal unit, although appointed in 2021, has evolved from the previous bottom-up initiative around building a team of certified tutors in diverse didactic and research projects (Jendza & Karpińska-Musiał, 2022). This timeline allows us to assume that members of the present Team have faced various challenges and, in this process, have developed a unique, sustainable mode of cooperation leading to a processual professionalization of their (and of other academics through courses delivered) position in the institution. This process has also been marked by the specific ways of team building and setting grounds for cooperation, trust, and shared expertise.

Below I will present, in the first part, a subjective analysis of this process as seen by myself as a member of the Team, who holds the position of deputy Head of the Unit. For this, a conceptual framework will be developed, based on some concepts of Michel Foucault’s critical approach (Olssen, 2009). I argue that some of them allow us to filter the phenomena occurring in the process of solidifying the social and professional structure of the unit, resonating with the actions, tasks, and missions its members undertake and identify with. Secondly, empirical research based on the quantitative analysis of a questionnaire will constitute grounds for discussion. This part will reflect the perspectives of Teacher Training (TT) course participants on the same process of institutionalization of Teacher Professional Development (TPD) at the University of Gdańsk.

Methods

A critical look at the processual social change within an institution and the CDDiT UG team will be made with the use of an auto-ethnographic approach (Kępa, 2014; Ellis, 2009; Chang, 2008; Kubinowski, 2011; Ellis & Bochner, 2011; Kacperczyk, 2014). Autoethnography allows for an extremely specific, hybrid way of obtaining data for research, as well as defines the active, subjective, and meta-analytical participation of the author/researcher himself in this process. He becomes the author, but also the object of self-examination. According to Kacperczyk, the specificity of this research methodology consists in, among others: "recognizing that when trying to explain complex social phenomena, it is necessary to take into

account the personal reference of individual participants in collective life. Such a belief is associated with emphasizing the special position of the researcher in the process of generating and analyzing data" (Kacperczyk, 2014, p.33).

Due to the institutional embedding of this subjectivist method, I use in this case an analytical type of autoethnography (Canagarajah, 2012; Anderson, 2006). I call for some concepts and theories in Foucauldian thought, and subsequently add some analysis of the situation as possibly viewed with the filters of this conceptual framework. Each time I add preliminary conclusions that stem from partial analysis of the situation.

The second part of the paper is based on the quantitative questionnaire, aimed at observing tendencies in self-evaluation of the CDDiT courses' participants on their own self-efficacy beliefs and processual expertise development. This is a type of secondary research, as it is based on the teachers' opinions on their self-development. It is also of a diagnostic, exploratory nature and is supposed to reflect upon the needs and beliefs of academic teachers in the process of institutional change. This section is closed with brief general conclusions and a short list of potential questions for further discussion and research.

Conceptual framework and results of a qualitative analysis: solidifying a new organizational unit within a university

Governmentality and self-regulation

The concept of "governmentality", as coined by Michel Foucault (Olssen, 2009), sheds light on a new understanding of power; much wider than only classically related to the hierarchical, top-down power of the state (or institution) over its people. The French philosopher extended the meaning of power to include the forms of social control in institutions as well as control over forms of knowledge. Especially in education, we are of the opinion that knowledge is power, and it can manifest itself both positively and negatively (mechanics of promotion, assessment, examining, etc.). But in this positive sense, through the production/co-construction of knowledge, certain discourses are being developed and internalized by individuals, which, in the long run, enables them to govern not only others but also themselves.

In the case of the CDDiT, the institutional formalization of the Unit seems to be the outcome of two phenomena detectable in the University of Gdańsk across the recent decade. The first is knowledge co-creation by a group of people engaged voluntarily in specific social practices at the institution. It was a reversal of Foucauldian exercising power by the very institution of the university over its members. Secondly, we have observed the ripening of a certain discourse within academia: that of self/development and professional success, talent development, and teaching aligned to learning, all of which are nested in the paradigms of personalization and humanistic ideals. These prerequisites, as a result, call for a self-regulated individual, which may illustrate the embodiment of a subjectivized individual who rather exercises power over himself more than is being subjected to the power of others. Although it may also be viewed as the outcome of the neoliberal policies, it is justified to claim that in the process of appointing (rather than summoning) the CDDiT members, which was conducted by the Head, such a profile of an individual was selected, and a matching person was invited.

Preliminary conclusion: at least seemingly Foucault's theory of the structuring of power and grounds for self-regulation have not found much reflection in the process of the CDDiT formation. But this is more complex in fact. As I try to show further in a critical discussion, the mechanics of relationships and of governing principles in the team seem **to match** the definition of Foucault's govern-mentality more than it shows on the surface. Both in the sense of being reflected in the way we work, as well as corroborating the Foucauldian assumptions.

A tricky idea of self-development and well-being?

Let me refer to the category again. The *govern-mentality* suggests - although it is a false language game only - that governing relates closely to mentality. It is only a metaphorical language twist, but it still carries some meaning. Even if mostly for *self-governing*. Foucault described the definition of governmentality as a set of procedures, tactics, analyses, and methods of acting which when applied to a society/group of people, should result in their well-being. The goal of those in power is to make a "happy and stable society" using certain devices. To use those devices to make individuals **feel happy** and live in a "better society", even if they believe that this is only their private choice. In this type of secret/hidden power, as Foucault claimed, lies the perversity of governing, performed by political economy as a particular type of knowledge. This knowledge is being performed and governing exercised using extensive bureaucracy.

In the case of the CDDiT, we also develop mechanisms of "bettering" the social and praxeological domain of didactics. We offer tools, actions, etc. (courses, webinars) to make academicians more self-regulated, stronger, better, feeling more professional. We include the postulates of professional well-being in our tutorials and materials, also in the course programs. As educational leaders, we support other teachers with our expertise to turn them into more *self-regulated*, happy teachers who base their profession on expertise. Do we then only create a fake, mischievous educational reality in the aura of empowerment and self-development, or do we support its **authentic** growth? And how do WE grow in this process? The answers might be hidden in the word "institutionally". Let me try to dive deeper into this phenomenon by reference to a few other categories taken from Foucault's thought.

Preliminary conclusion: I dare to claim that what happens in the learning process of the CDDiT team goes against the fake and in the direction of the authentic.

Subjectivation and self-technologies

Self-technologies as a concept developed by Foucauldian followers are supposed to mean the practices and strategies used by individuals to expose their own ethical self-understanding. In other words, they are schemes which they apply to *self-present* themselves in their institutions. And for this auto presentation, they like to operate with the concept of **expertise**. Expertise seems to be a key category used discursively by individuals to denote their attitude to external power. They can either consider themselves self-regulated and distanced from devices of external power (e.g., extended bureaucracy), or dominated by it, and a determining factor in this "game" in is expertise.

Expertise is synonymized with authority and this type of authority originates from scientifically based knowledge. Thus, feeling like an expert helps one to define the dynamics of self-technology choices and their type. As Nikolas Rose (1996, p.156) remarks, "Expertise is given a special role in the formulation of governance programs and in technologies that seek to produce the desired effects"[45]. Expertise works through the logic of choice, enabling the transformation of how individuals constitute themselves. It is done through "the inculcation of desires for self-development that expertise itself can guide and through claims to the ability to relieve the anxieties generated when reality does not reach its image." (Rose, 1996, p. 88)

In the case of the CDDiT, we believe in our (gradually developed) expertise, we feel experts and use scientific knowledge as a tool of power which enables us to develop governance programs for university academic staff. We expose our experience and knowledge to the public domain, thus inducing this process of *subjectivation both* for ourselves and for the others: our academic teachers who decide to learn as individuals. At the same time, all our team members seem to have this sort of multiple networks of own professional and social roles beyond our commitment at the institution which intertwine and overlap. Performing them could perfectly well be called a *self-technology* application.

Preliminary conclusion: the category of *self-technology* is valid and two-sided in our case: team experts, thanks to their constantly growing expertise as educational leaders undergo **authentic self-subjectivation**. At the same time, they analogically induce the same in the course participants and colleagues in the team. Both groups of subjects are encouraged to apply their self-technologies. This authenticity has a lot to do with **responsibility** and not, as I try to argue below, with Foucauldian *responsibilisation*.

Responsibilisation vs Self-esteem

Why does *responsibilisation* not exactly match the praxeological context of teacher professional development of teacher educators at the University of Gdansk? First, due to its imposter-type characteristics. This construct assumes that neoliberal governance **talks people into feeling responsible** as if this was their right and evidence of freedom, whereas **it is done** to exercise the power of the free market and avoid institutional/state responsibility over an individual. I claim to see *responsibilisation* a bit more literally in the context of our CDDiT team building and relate it rather to self-esteem issues, which I explain below.

Responsibilisation must be thought of, even etymologically, as referring to responsibility. However, the tactics of summoning the concept of *responsibilisation* bear the signs of discursive oddity. They create - purely discursively to my mind - a social and psychological impression of rather de-subjectivation and dis-empowerment, and not what responsibility axiologically and phenomenographically induces. It is true that responsibility as such MAY have diverse grounds, motives, and shades, but deceptive intention - even if only discursive - of making a subject **only theoretically responsible** for their actions (to oneself and others) resembles manipulation. As it can be justified that this is also a way of performing power (social or verbal manipulation is in fact aimed at this), why should it be taken **as the only** (or main) determinant affecting the actions of individuals? Why not assume that they can feel a true, sincere responsibility to themselves and others? Some people, especially experts, even more professionals, **will authentically** be self-regulating, responsible, and caring for

themselves and others BECAUSE they simply trust themselves and each other. This must, however, be concomitant with something the Foucauldian critics called *self-esteem*. In this case a positive self-esteem. *Self-esteem* is also described as a type of technology, as it relates to some specialized knowledge about how to evaluate, estimate, calculate, measure, evaluate, discipline, and judge oneself (Rose, 1996, p. 273). In other words, it is knowledge of how to use our self-technology to manage ourselves to achieve aims that bring satisfaction and empowerment.

In the case of the CDDiT, I claim that Team members DO feel personally fulfilled and CAN have high self-esteem based on their so far experiences, studies, feelings, and emotions. And they ARE professionals who do not have this pressure of being constantly judged and disciplined to get legitimized to the collective criteria of success or failure, as the Foucauldian theory presumes. *Self-esteem* is presented as a technology which leads to a constant self-assessment of whether and if an individual meets the criteria which will free him or her from external assessment. And yes, in this sense we do self-assess ourselves in our Team. We talk, do briefings, authorize course programs, discuss the evaluation sheets provided by our course participants, plan and design the educational initiatives at the university. It might be said that this is being governed by the "forces of the market" represented here by the group of academic teachers who attend our courses. They "buy" (not commercially but cognitively) our services, utensils, clips, or recorded webinars so in a way they are clients, and we are "governed from a distance" by their satisfaction and attendance. But there is one determining factor that allows me to say that the CDDiT Team is not aligned with the market technologies in question: the clients do NOT pay us for their services privately. We as the CDDiT Team are paid by the institution, i.e. the University. The courses are free for the academicians, and they choose the "market goods" of their free will. In line with Foucault's thought they may equally well be said to be governed by institutional rules of professional development and encouraged to use their self-technologies to adapt to the collective, or to give up to the drive of elusive self-development pressure, etc, but whether it is so shall be shown below in research results.

Preliminary conclusion: there is no direct economic connection between services provided by the Team and an individual teacher as a participant in the Teacher Professional Development (later referred as TPD or TT) courses offered by the University of Gdańsk. What consolidates us in the Expert Team are rather: long-term friendship, trust in our expertise, responsibility, proper self-esteem and set - although not exercised or controlled hierarchically - principles of work ethics. Salary is there, but it seems not to be the major factor and is regulated by the institution regardless of the number of participants who attend the courses. Whether the same principles govern the choices and decisions of teachers who attend our training courses, can be at least partially verified through quantitative empirical research. At this point I would like to proceed to the second part of my paper: the one focused on teachers as recipients of expert knowledge and as learners.

Results of a quantitative study: academic teachers as recipients of institutional didactic training

The qualitative analysis of the learning processes within the CDDiT Team, as subjectively presented above, sheds some light on the perspective of how teacher educators learn in an institution. The other perspective in focus is that of recipients of professional development provided by educators: i.e. academic teachers themselves. Hence, below I present the chosen quantitative empirical research results, based on self-evaluation of the TPD course participants on many aspects of professional development: their own self-efficacy beliefs, processual expertise development, or mastering didactic skills and knowledge, just to mention a few.

Research procedure:

An online anonymous questionnaire with 44 closed questions based on the Likert scale (completely disagree – completely agree), and one voluntary open question (free comments) was applied. It was run in June 2023 and the **targeted sample** were all TPD courses participants at the University of Gdańsk in 2022-2023 (300 formally enrolled) (beyond 1000 incl. webinars and online courses). The **response rate was 39%, n=117**. **The research aim was to get a picture of** how the participants felt about the growth of their expertise, their self-efficacy as teachers, their teaching identity evolution (as teachers and scholars), and how they perceived the role of the institutionally initiated TPD at the University of Gdańsk. For analysis, all 44 questions have been grouped into 4 major conceptual categories and 9 sub-categories.

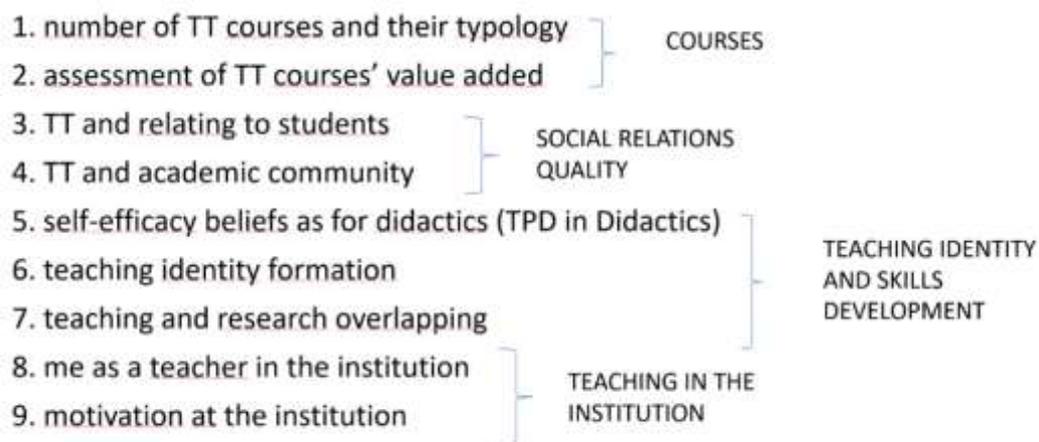


Figure 1: MAJOR CATEGORIES AND 9 SUBCATEGORIES OF DATA ANALYSIS

As for the metrics, the respondents represented diverse scholarly disciplines: life sciences at 33%, social sciences: at 32%, and humanities: at 30%. One-third have been employed at the university for 10-20 years, and a similar quotient for 20-30 years. As for the position held at the university: 41% are assistant professors (PhD, research, and teaching position), and 24% - are assistant professors (PhD, teaching position). Gender representation: 87% of women, 12% of men and 1% did not wish to reveal their gender. 47% of respondents (the majority) attended 1-5 courses in the last 2 years, whereas 38%: 5-10.

Research results:

FIRST MAJOR CATEGORY OF ANALYSIS: COURSES

Subcategory 1: number and typology of TPD courses

38% of respondents claimed to agree that there were enough diverse courses in the offer, and 27% just agreed. Ca 13% did not agree with that (also completely). This latter percentage gives something to consider as to how small, in fact, fraction of participants overall is still willing to have more options at their disposal. Asked about the duration of courses (longer or shorter, one day or several days), a considerable number of academics were not declarative about this issue (22%). Participants learned to prefer shorter courses and webinars due to their logistic flexibility (ca 64%), but still 13% would not agree with this. Almost half do not agree that longer courses are their favorite, even if they focus on reconstructing their approach to didactics and teaching identity. Participants in the definite majority were satisfied with the topics of courses, and 84% agreed as to whether the topics matched their needs. As for courses always meeting their expectations though, still ca 10% disagreed.

Preliminary conclusions: academic teachers know the importance of raising their didactic awareness and developing their didactic skills, but they tend to prefer practical methodological tools and solutions instead of more time-consuming, processual teaching identity transformation.

Subcategory 2: assessment of TPD courses' value added.

Value added was defined twofold: as conscious knowledge growth being part of building expertise and as good practice sharing, thus building a community of good practice. The results showed the following:

A. Knowledge growth as an element of self-development and building expertise.

81% agreed (also completely) that taking the training helped them to expand their professional knowledge and expertise, thus building their roles as experts. A few percent did not agree that training does not add up to this aspect of self-development.

B. Good practice sharing as social and community building element.

On the other hand, around 18% of participants did not agree or had no opinion as to whether sharing and discussing is the top value-added they get in the courses. 83% though, so the majority, agreed that caring and sharing is good for them.

Preliminary conclusions: it can be stated that a definite majority of respondents (over 80%) observed the value added of participation in TPD courses, both in terms of knowledge growth and building a community of practice.

SECOND MAJOR CATEGORY OF ANALYSIS: QUALITY OF SOCIAL RELATIONS

Subcategory 3: TT courses and relating to students.

20% of respondents claimed it was hard to say whether participation in TPD courses helped them to develop better relations with students, but 70% agreed, also completely.. At the same time, only 60%, so comparably many, agreed that training helped them to feel more confident in assessing students and their achievements. Still one-third remains hesitant about the fact that

this participation developed their competence in good assessment. Only slightly beyond half of the respondents (56%) agreed (also completely) that TPD in the form of courses made them feel more competent in communicating cross-culturally with students of diverse backgrounds. Also, even fewer believe (45%) that it helped them to develop the skills of diagnosing students' needs and recognizing their learning styles.

Preliminary conclusion: results within this category provide some clues for the development of TPD programs in the future. Most academic teachers who participated in TPD programs assessed positively their new quality of social relations with students, and more than half felt they raised their competence in assessment. What is still needed is support in developing their skills in contacting students from diverse cultures and training in diagnostic skills needed to align their teaching to learning.

Subcategory 4: TT courses and relating to the academic community.

Only several percent of respondents agree with the statement that “Thanks to training sessions I feel more secure and confident in setting relations with colleagues **at my faculty.**” Similarly, the same quotient does not agree with this, and 34% cannot say. Only slightly more than this hesitant group, ca. 40% will claim that thanks to participating in the training sessions they do feel more comfortable in relating to colleagues, but **from other faculties or institutes than their own.**

Preliminary conclusion: this outcome shows that, academicians do not feel that new acquaintances made during courses reflect better socializing in their institutional settings. If so, this occurs across faculties. This is not surprising considering the diversity of participants who usually recruit from different disciplines, faculties, or institutes at the university.

THIRD CATEGORY OF ANALYSIS: TEACHING IDENTITY AND SKILLS DEVELOPMENT

Subcategory 5. Self-efficacy beliefs (TPD in Didactics) and Subcategory 6. Teaching identity formation

In subcategory nr 5 questions about the change in perception and value judgments as for the role of good academic teaching were formulated. Additionally, respondents were asked about their opinion as to the development of their skills in designing classes and general teaching skills. Perception of professional didactics as an essential element of quality-based education in general has evolved: slightly beyond half of the respondents agreed and agreed that they started to understand and value professional teaching skills, but still one third were hesitant about it. More than 62% agree that courses have made them change significantly in their approach to teaching, with 15% not compliant with that. 75%, so significant majority, feel more confident in designing classes and lectures after participation in TT courses, which shows that methodological and practical aspects are crucial for participants. Also, 80% of respondents confirmed that their teaching skills have improved subjectively.

Subcategory 7. Teaching vs research

Respondents were also asked whether participating in PDT training sessions helps them to improve combining teaching with their scientific research. 42% of respondents DO NOT agree (also completely) with the statement. Only 27% agree with that.

Preliminary conclusion: it could be observed that in respondents' opinion developing teaching expertise does not relate directly to doing research and popularizing its results through didactics. This highlights a well-known controversy: publishing and research achievements are institutionally valued in academia, whereas teaching is not. There seems to be a risky cognitive gap in this situation. Research may not need good teaching (in some disciplines, as in Educational Studies this is the core), but good teaching in many fields requires good research. This correlation needs to be more emphasized in TPD training sessions. This is why the last category of analysis touches upon this issue as well.

FOURTH MAJOR CATEGORY OF ANALYSIS: TEACHING IN THE INSTITUTION

Subcategory 8: Me as a teacher in the institution

There were also questions in the questionnaire which tackled the relationship between taking part in TPD courses and receiving support in redefining the academics' professional career path in general. 38% of respondents have no opinion as to whether didactic training helped them to precise and redefine their professional career path, and a comparable percentage of respondents agree and disagree. This in a way exemplifies that professional development as such is still not a vividly present element of university culture. This also shows in one of the qualitative responses where a respondent remarked: "This question sounds as if I was supposed to get something from my institution. I do not see it as obvious, but rather when I asked for something, I got it."

HE Institution will not be viewed in Poland as a workplace with clearly defined principles for professional development stages supported by institutional counselling. This may be tentatively concluded from some other responses to the question of whether providing space for TPD is an institutional obligation at the university. 82% of respondents agreed, only 1% disagreed completely, 7% could not declare. At the same time 66% of respondents agree (also completely) that the institution **expects** professional development in the teaching area from them, and for 70% taking courses is a way to meet the institutional demands to develop professionally in this field. Slightly less, but still beyond half (65%) believe that courses compensate them for the lack of institutional mentoring about their TPD. A similar quotient agree that they do not receive this sort of professional support, while not even a half (ca. 43%) receives informal support in their career path from significant persons. **ONLY** one-third of the respondents claims that they feel social safety at work, but on the other hand similar fraction of 43% believes that their didactic potentials are properly recognized and capitalized at the university. Many more, however, **75%, so three fourths, agree and agree completely that they miss HR management and system of professional recognition and talent capitalization.** To confirm that this expectation has not been satisfied till today, 71% of research respondents declare they would take the opportunity of receiving academic advising/mentoring if this was offered institutionally by the university.

Subcategory 9: motivation in the institution

50% of research respondents find motivation to work in their institution, but the remaining half either have no opinion (28%) or disagree (22%). At the same time, within the same target group, 66% gets motivated somewhere else, beyond their workplace. 12% only claim not to agree with this.

Preliminary conclusion: university policies concerning Teacher Professional Development seem to be still in the process of development at the University of Gdańsk. Institutional solutions are in progress, but the opinions as to whether the academic teachers should expect or whether they do receive them, are still diversified. On the other hand, teachers present the need space for knowledge and practice sharing, reflecting on their teaching and learning, and the TT courses open this space for them in the institution. Teachers in the majority do have the feeling of their potential being recognized, nevertheless they are also strongly willing to be mentored. Lack of satisfactory mentorship support at the institution reflects in their conclusions about sources of motivation. More respondents find professional motivation beyond their direct work environment, as well as they value socializing across institutes and fields more than within their direct workplace.

Discussion and closing questions

Qualitative analysis and quantitative data collected in the above paper show a complex and diversified picture of:

- The enriching influence of TPD courses run by the CDDiT Expert Team upon forming a *teaching identity* in both subject groups: of teacher educators (mentors, experts) and academic teachers (courses' participants). This institutional impact is thus doubled, although the processes in each case seem to be different in their nature (more identity and expertise-oriented in the case of the Team of educators, whereas more skills-and-methods-oriented in the case of course participants).
- Evolutionary transformation of a HE institution in response to dominating paradigms in education and formal demands for Quality Assurance in the teaching domain: a process that is still in progress and not yet completed but worth further research, but present in the awareness of all the stakeholders in the Polish academia.
- The generally positive impact of TPD courses offered to the academicians on building their academic social relations within the university, especially across disciplines and faculties, although it turns out slightly less influential upon the development of their skills to relate to students (cross-culturally in particular).
- A growing demand for institutional support provided by mentors and teacher educators in the context of Teacher Professional Development, career path and teaching skills included.

Considering the results and analyses collected, some further questions appeared during the qualitative analysis of the questionnaire (also while analyzing the answers to the open questions). For example:

- Why are several hours long, identity-forming courses not prioritized by participants (in favor of shorter webinars), although they valued them in the similar research on preferences in 2022, while ca. 93% of the then respondents claimed to need professional didactic courses of any type? (Jendza & Karpińska-Musiał, 2022)
 - Why is research-based teaching and valuing a reciprocal relation between research and didactics underrepresented among 2023 respondents? This tendency continues, as also in 2022 the quotient of positive opinions of the correlation between doing research and teaching went down by 20% when compared with a decade ago (Jendza & Karpińska-Musiał 2022). How can CDDiT UG unit and others of the type tackle this problem?
 - Should the university provide systemic mentoring and in what dimension and structure?
 - What to do to raise the level of social safety among academicians? Can TT courses also support this deficiency? Can it be done only by internal Experts like the CDDiT Team, or should it be supported by external specialists who deliver professional knowledge and expertise from targeted areas?

Such questions need to be continuously asked to design further institutional change concerning teaching quality, self-technology actions undertaken by subjectivized teachers, as well as institutional policies which are to meet the demands of the academic community not only of the University of Gdańsk, but across other HE institutions in Poland as well.

References:

- Anderson, L. (2006). Analytic Autoethnography. *Journal of Contemporary Ethnography* (35), 373–395.
- Antonowicz, D. (2005). *Uniwersytet przyszłości: wyzwania i modele polityki*. Instytut Spraw Publicznych, Warszawa.
- Canagarajah, S. (2012). Autoethnography in the study of multilingual writers. *Writing Studies Research in Practice: Methods and Methodologies*, 113–124.
- Chang, H. (2008). *Autoethnography as Method*. Taylor & Francis.
- Cruikshank, B. (1996). Revolutions within self-government and self-esteem. In: *Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government*. Andrew Barry, Thomas Osborne & Nikolas Rose (eds.). Chicago, IL: University of Chicago Press, p. 273.
- Ellis, C. & Bochner, A.P. (2011). Autoethnography. An Overview. *Forum Qualitative Social Research* (36), 273–290.
- Jendza, J. & Karpińska-Musiał, B. (2022). Professional identity shifts of academic teachers in response to recent (g)local critical incidents -preliminary research results. *Beyond Philology* 19(2), 73-92.

Kacperczyk, A. (2014). Autoetnografia - technika, metoda, nowy paradygmat? O metodologicznym statusie autoetnografii. *Przegląd Socjologii Jakościowej* (10), 32–74.

Kępa, E. (2014). Autoethnography did not come out of nothing – considerations about continuity and change. *Parezja. Czasopismo Forum Młodych Pedagogów przy Komitecie Nauk Pedagogicznych PAN*, 79–89.

Olssen, M. (2009). Governmentality and Subjectivity: Practices of Self as Arts of Self-Government. *Contexts of Education* 3, 77-93.

Rose, N. (1996). *Inventing Our Selves*. Cambridge: Cambridge University Press.

3. THE SITUATION OF NEW TEACHERS IN HUNGARY: THE EXPERIENCE OF ENGLISH AS A FOREIGN LANGUAGE TEACHER TRAINEES

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Abstract

This paper reports on ongoing research begun in May 2022 exploring the experience of trainee English teachers in Hungary. The first phase focused on 13 trainees who did their teaching practices during the Covid-19 pandemic. One of the findings of that study was that the majority of the trainee teachers did not see a future career in teaching as being feasible primarily because of financial considerations, and this obviously has major implications for the future of public education in Hungary (Prescott-Pickup, 2023).

In the second phase of the research, the aim was to find out how teacher trainees' experiences during their training influence their thinking about themselves as teachers and what factors impact their decision making about their future career paths. The research employed an ethnographic qualitative design, focusing on teacher life stories, with the data collection taking place by means of online in-depth interviews using an interview guide (Patton, 2014). 33 trainees were interviewed between mid-June and the beginning of September. The data analysis, whilst not complete, has yielded several major categories of which two will be discussed in this paper. The initial findings show that while most of the trainees were successful in creating teacher selves, despite facing a number of different challenges, less than half of them intended to teach in public education after obtaining their degree. One reason for this was the level of pay for beginning teachers, but there were several other factors in their decision, including the length and difficulty of the training itself.

Key words: *teacher training; teacher self; teacher life stories; Covid-19; qualitative research*

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Introduction

Arguably the most crucial moment in the development of a teacher is when they first have to take responsibility for a class, when they are the one in sole charge guiding the students and providing the learning opportunities for them. This formative phase is part of every trainee teacher's pre-service training. However, while the development of novice teachers in their first years has been the object of research for many decades (Bouchard & Hull, 1970, Szivak, 1999, Veenman, 1984, Zuljan & Požarnik, 2014), less attention has been paid exclusively to the experience and development of trainee teachers during their period of study in teacher training institutions. Nevertheless, in the current educational climate where teacher shortages are a phenomenon in many countries around the world (Nguyen et al., 2022) and in the majority of countries in Europe (European Commission/EACEA/Eurydice, 2021), there is an obvious

urgency in finding out what is going on during arguably the most important stage of young teachers' lives, their first classroom experiences while completing their initial training.

The present research seeks to explore the experience of trainee teachers in Hungary at a particularly difficult time in the public education system. There has been a serious and growing problem with teacher shortages in many subjects (Juhász, 2021) and a concomitant aging of the teaching workforce (Eurydice, 2023). Moreover, the recent Covid-19 pandemic and the two nationwide lockdowns of public schools in March 2020 and November 2020, laid bare the stark inequalities between different parts of the country in terms of both basic income and employment as well as access to digital technology and the web (Huszi, 2020, UNICEF, 2020). It also revealed that full-time teachers were ill equipped to deal with teaching online and that the general digital literacy of the country lagged behind other EU members (Czifra et al., 2021). This inequality and lack of preparedness was also clearly shown by the experiences of teacher trainees teaching during the lockdowns in schools in different parts of the country in the first phase of the present research (Prescott-Pickup, 2023). In several cases it was the trainees who were helping the full-time teachers to manage the sudden switch to remote learning and to work out how to teach effectively online.

One further important phenomenon affecting the public education system which impacts trainee teachers is the ongoing dispute between full-time teachers and teaching unions with the Hungarian government over pay and working conditions, which has been exacerbated over the summer by the passing of the so-called Status Law by the government, changing the legal status of teachers from public servants to public employees and affecting their rights and working conditions (Magyar Közlöny, 2023, July 6; TASZ, 2023). The trainees in this study were all well aware of this development and many of them commented on the visible effect it was having on the teachers in their schools.

Given the current situation in public education in Hungary, the perspectives of trainee teachers and their reactions to the wider context are of great importance. The present research uses the concept of teacher life stories to examine how trainee teachers regard their long training and their formative experiences during their teaching practices, and how this affects their thinking about their future. This approach was inspired by an earlier study of early career teachers of English as a Foreign Language in Poland during the mid-1990s (Johnston, 1997).

Methods and Procedures

The participants of this study were all recently graduated teacher trainees or trainees in the process of completing their graduation at the end of their six-year training. For most of them their studies began in 2017 and in their fifth and sixth years they had done two teaching practices, a short teaching practice (STP) in their fifth year at a practice school affiliated to the university lasting a few weeks in which they taught 15 classes, and a long teaching practice (LTP) in a non-practice school (usually) lasting a whole academic year in their sixth year. During their training the trainees studied and taught two subjects, one of which was English as a Foreign Language (EFL). The researcher works in the Department of English Language Pedagogy at the university the research was done in, which is why all of the participants were English language trainees. English is also the most common foreign language taught in Hungarian high schools.

The participants were found by writing to the entire cohort of graduating trainee EFL teachers in May 2023. All 132 students doing their final exams were sent an email seeking their agreement to participate in return for the offer of professional help in the future if and when

requested. In addition to this, several other teacher training programmes in Hungary were contacted and a similar email was sent to their graduating students. However, only a single student responded from one of these programmes, so the great majority of the interviewees came from the researcher's own institution.

Altogether, 33 graduating teacher trainees agreed to do an interview. All but one of the interviews was done using Microsoft Teams (the other one was done face to face and recorded on a smartphone). For the interviews done on Teams an automatic transcription was produced as the interview was recorded (each interviewee was asked for permission to make a video recording on Teams). A smartphone recording was also made as a failsafe. The transcriptions were 'cleaned up' to produce an easily readable form and checked for accuracy against the video recording (this work is still ongoing). Altogether, the transcriptions for the 33 interviews come to over 200,000 words and over 27 hours of recordings. The interviews began in the middle of June and continued throughout the summer. The 33rd interview took place on 7 September.

An interview guide (Patton, 2014) was used for the interviews which was divided into five sections: a short introductory part, followed by a question asking them to tell the story of their life as a teacher trainee up until the present time. Further prompts were used to explore aspects of their story if necessary. This was followed up by questions probing various aspects of their training but particularly their short and long teaching practices. The final parts of the interview guide addressed the future intentions of the interviewees and their feelings about the Hungarian education system and the status of teachers within it. The guide was not used rigidly but as a flexible basis for constructing the interviews, but all participants were asked the central question about their life story.

Data analysis is still ongoing and in the first phase of analysis open coding of several interviews was followed by more focused coding and then "themeing the data categorically" to gain a broad understanding of the most strongly emerging themes (Saldaña, 2021, p. 259). Several major categories and many subcategories were formed of which the two most central to the research aims will be discussed in the next section. In the discussion, data extracts are coded by the teacher trainee (TT) and the number of their interview (1-33) as well as the page of the interview transcript.

Results and Discussion

In a short paper such as this it was only possible to explore a small part of the data in any depth, and for this reason I will focus on only two of the main categories which are central to the question of the trainees' view of themselves as teachers and their decision making about their future career. The first category, the formation of a teacher self, addresses this question directly because it explores to what degree the trainee has been able to successfully construct a teacher self (a term taken from the interviews) for themselves and the challenges they have had to face while doing so. The second category, inhibiting factors on trainees' decision making, looks at those factors the trainees talked about which exert a kind of "drag" or inhibiting effect on their decision whether or not to enter the profession that they have trained for. In both cases these categories are complex and involve several subcategories, and to some extent they overlap.

I will deal with each category in turn, but before doing that, it will be helpful to have an overview of what the trainees' intentions were at the time of their graduation regarding their

future career paths. In Table 1 below, the 33 trainees have been categorized into four groups depending on their stated plans at the time of the interviews. The first two groups include those who will actually enter public education as a teacher, even if just for a year or two, and the other two groups include those who will not enter public education but may continue teaching privately (group 3).

Table 1
The future plans of the participants

| Group 1: Will teach in public education for several years (3 or more) | Group 2: Will teach in public education for the next year at least | Group 3: Will not teach in public education but will teach privately | Group 4: Will not do any teaching – will do something else |
|---|--|--|--|
| TT3 | TT1 | TT8 | TT2 |
| TT10 | TT4 | TT13 | TT11 |
| TT30 | TT5 (part time) | TT16 | TT14 |
| | TT6 | TT17 | TT20 |
| | TT7 | TT19 | TT22 |
| | TT9 (part time) | TT21 | TT24 |
| | TT12 (part time) | TT23 | TT26 |
| | TT15 | TT29 | TT28 |
| | TT18 | TT31 | TT32 |
| | TT25 | | |
| | TT27 (part time) | | |
| | TT33 | | |

Note Each teacher trainee (TT) is identified by the order in which they were interviewed.

The formation of a teacher self

What is immediately apparent when looking at the trainees' sense of themselves as teachers is that despite experiencing many challenges and setbacks, in nearly every case the trainees eventually experienced success in their teaching practices and were able to form an effective teacher identity for themselves, at least in one of their subjects if not both. All the participants were able to talk about themselves as teachers in the classroom and explain their core beliefs.

Interestingly, nearly all the trainees spoke about their relationship with their students as being a central point in their teaching philosophy and the strength of this connection was often shown by their students' responses at the end of their teaching practice, with several trainees telling anecdotes about their students giving them presents or asking them not to leave: "They were like begging. They were like crying and I cannot, I cannot do it. So I know that they feel that all of their teachers are leaving" (TT10, p. 19).

The sense of an effective teacher self tended to emerge much more strongly during the LTP, perhaps not surprisingly. Several trainees commented on this:

I got the basics and like the theoretical knowledge from the first five years of my university studies. But then I also gained significant experience during this one year [of

the LTP]. And all of this combined together, I would say is something that has definitely changed my view on teaching, and it has definitely improved my view, and, and the way I'm going to go into teaching (TT1, p.3).

Teacher Trainee 11 spoke of the LTP as being “a huge turning point” (p. 2) for her because she had to teach learners who were younger than she wanted: “I had to start with a group of students who were around the age of 13 and 12, and that was a very good experience. They enjoyed everything that I brought in the class, so that was the turning point” (TT11, p2). Trainee 15 spoke of the experience of doing her LTP in her old high school directing her back to teaching after earlier having thought she would not teach:

I started teaching in my old high school or in my high school. And then I felt that maybe this is the place where I feel like home. I mean, not just the hometown, but also the atmosphere of the school and the colleagues and the whole thing. So, it was another turn point, and it directed me back to the teacher job, or the profession. (TT15, p.3)

For Trainee 25 the LTP was “transitional in that sense that before I really felt like a student still. And today I feel like I'm, I'm ready to be a teacher or I'm already partly on the way to be a real teacher” (p. 1). Sometimes, however, this feeling of making the transition from student to teacher came during the trainees' STP. In the case of Trainee 13, her STP in English came after her practice in her other subject and she had already made a lot of progress: “It was a lot, a lot easier we can say. We knew the system by then. I knew what is expected from me, so it went too, so efficiently and very quickly” (TT13, p. 5).

However, other trainees found it challenging to teach English in the official practice schools mainly because of the familiarity of the pupils there with trainee teachers. Trainee 4 explained this well:

I felt like they were kind of used to having teacher trainees, because of course it's a training school, so it was nothing, nothing real for them. But I did feel that was sometimes a negative thing because they didn't really, I felt like they didn't take me as seriously as if I was going to a school where they don't get a teacher trainee every single semester from every single subject. (TT4, p. 7)

In some cases, trainees were even corrected and received advice from pupils in training schools, something reported by TT2:

The students were, they were like strict. They were strict with me too, and I felt like I wasn't, I couldn't make any mistakes. And once I did, they started correcting me. And I know I, like everyone can make mistakes, but it was really weird to be corrected by the students. (TT2, p.5)

It was no surprise that this experience combined with the often-mentioned fact that the trainees were not much older than their students could cause the trainees to question their role as teachers in their first practice classes: “So, it's like they are bit younger, but I, I don't feel like a teacher, like an older teacher, but... So the age gap is, is weird” (TT2, p. 5).

Another challenge to the formation of a successful teacher self which was experienced by many of the trainees was the realization that their language proficiency was not good enough for them to be teachers of that language, itself perhaps an indication of the existing weaknesses in the public education system. As we have already seen, when trainees started their STP in practice schools, this lack of language proficiency put some of them at risk of having their own



language use critiqued by their students, but the realization that their language level was inadequate occurred much earlier in their studies in several cases:

So yeah, and then I came to [university] and it was a big punch in my face because I realized that I don't know English. [...] I learned it for years, but I missed two years in high school because, I mean, we learned English for three years and then German. (TT24, p. 3)

Trainee 24 was committed to improving her language proficiency and took and passed a C1 exam privately because she wasn't satisfied with the oral online C1 exam at the university (during the Covid-19 lockdown). She saw her struggles as actually helping her to help her students: "I think these weaknesses can help to, so to be like, how can I say, so to help others better. Because I know the difficulties" (TT24, p. 4).

Even for trainee teachers who experienced great success, language proficiency could be a problem. Trainee 33 won an award at the end of her LTP for being an outstanding trainee teacher, but like others when she began her studies at university, she felt she was not good enough: "So I felt like that in these English practice courses, everybody was better in English than me, more fluent, or knew or had more bigger vocabulary" (TT33, p. 3). It was only when she was in her third year that she began to feel more confident:

I think in the third year I really started to improve, and I mean not just because I practiced at home, but I felt like that, that I had a lot of lessons in English. I started to feel that I'm gonna, I'm gonna be good enough, and I'm gonna be fluent enough to be a teacher to teach students, because at the beginning I was really unsure about that. (TT33, p. 3)

In the end, even the trainees who experienced problems with their language proficiency were able to negotiate the challenge and find an effective teacher self during their LTP. In only two cases did trainees mention their language level as the reason for deciding not to be a teacher. Trainee 20 said that "in the end, I decided that I'm not going to be a teacher because I don't think I'm qualified enough to become a teacher in that level of English" (TT20, p. 5). Her case was complicated by having caught Covid twice during her STP and having experienced memory problems. In the case of Trainee 21, while she gave several other reasons for deciding not to go into public education as an English teacher, her own lack of confidence in the language was a key factor. As a teacher of Music, however, she had been successful and was going to teach in a private school: "So basically, I'm going to teach Music. I have some English courses, but I don't really like teaching English because I am, as I said, I am not confident with that" (TT21, p. 7).

Before moving on to the second main category, there is one other trainee who should be mentioned because of his difficulty with creating a successful teacher self. In his case the challenge was not to do with his language proficiency but rather with his attitude to authority. Similarly to several of the other trainees, his mother was a teacher (altogether 11 of the trainees had a parent or a close family member who was a teacher), but his first choice at university had been to do a liberal arts degree and he had only switched to the teaching track after a year because he realized "if you only start literature, that's not gonna give you lots of possibilities" (TT26, p. 5). Although he had been successful in his teaching practices, particularly in his LTP, he struggled to find an identity for himself as an authority figure: "The thing is that I couldn't work with this teacher persona and basically it's been with me all my life. Even in my current job, it's, I cannot, my mind just cannot process authority and differences between people" (TT26, pp. 9-10). And yet he received the highest possible mark in his LTP and his mentors

told him to stay a teacher. This issue of dealing with being an authority figure was mentioned by several of the students but only in his case did it take on such magnitude. At the time of the interview, although he was working in a completely different job in another country, he had just applied for a teaching post in a private school.

Inhibiting factors on trainees' decision making

While the majority of the trainees were eventually successful at creating their teacher selves in the classroom, more than half of them decided not to pursue a career in full-time public education (see Table 1), and this included trainees such as trainee 14, who explained “even though I love teaching and I have become very passionate about it, I would love to experience other fields as well” (TT14, p. 15), and trainee 22, who “really wanted to become an English teacher” (TT22, p. 1) but is “really sorry that I cannot” (p. 1). Some of the teachers will carry on teaching privately alongside other jobs but only three of the trainees plan to be public school teachers beyond the next year or two. And only one single trainee spoke of planning to be a career teacher: “Umm, I know it’s strange, but I’m planning to be a teacher right now. I see like a 99% chance that I will retire from teaching” (TT3, p. 8).

When it came to explaining their decision making, there were several significant inhibiting factors which were mentioned by many of the trainees, even those who planned to continue teaching in public education in the short or medium term. The most obvious one was the insufficient level of pay, which was mentioned by nearly all the trainees. In some cases, trainees were only able to start a teaching job because they had the use of a flat for a year rent free (TT12) or because they had a partner who was earning much more than them (TT7). Trainee 4 was going to continue at her LTP school but was planning to have a family and was unsure if the pay would be enough. Trainees also spoke of the pay as being “really disrespectful” (TT4, p. 15), “a bit disrespectful [...] and also it can be humiliating” (TT26, p. 18), and Trainee 27 went even further: “You can’t even pay rent and they haven’t talked about the other payments that you have to make, like it’s just so disrespectful and disgusting to me” (TT27, p. 18).

However, the question of pay, while significant, was by no means the only inhibiting factor. Another commonly mentioned phenomenon was the length and difficulty of the training and the stress and anxiety associated with it. The following comment sums up the feelings of relief that many trainees expressed after having completed their degree:

I cannot believe that it’s finally over because it has been six years, and I remember when I signed the document that [...] I would finish in 2023 and it was 2017 back then. It just looked so unbelievably, unbelievably far away, and I just wasn’t sure it would ever get here. (TT22, p. 1)

Stories of burnout and fellow students dropping out were mentioned by several of the trainees. Trainee 19 spoke of two thirds of his close friend group experiencing burnout and he said that his own final year “nearly broke me” (p. 13). Trainee 30 was part of a tightly knit group of seven trainees with the same two subjects “and this year only four of us have made it to the end” (TT30, p. 4). Several trainees mentioned experiencing problems with their mental health at particularly difficult junctures in their studies. Trainee 26 and Trainee 30 both spoke about experiencing anxiety and having mental health issues during their training, and Trainee 32

experienced high anxiety levels and low confidence after the pandemic lockdowns: “I’m just, I’m always worrying about something and I think isolation during the pandemic really heightened this anxiety and especially my social anxiety” (TT32, p. 5). She felt it “really influenced my short-term teaching practices” (p. 3).

Two other important factors that significantly affected the trainees’ thinking about their future plans were closely interlinked. One was the current status of the education system, something that was mentioned by all of the trainees to some degree and often in a very negative way: “If I was to use a metaphor, I would say a sinking ship, with huge, huge problems. [...] Changes must come. Honestly. Huge changes” (TT13, p.12); “I don’t think that the educational system is going to change because it’s so broken. It should be built up from the small little bits” (TT20, p. 29); “I feel like teachers are now the violinists on the Titanic like, like it’s sinking and they are still playing the violin” (TT22, p. 9); “Catastrophic, I think. Even if [...] there were some major changes in the positive direction right now, I think it would take [...] a long time until we could experience any positive effects of a better education” (TT25, p. 18). Several trainees (TT13, TT20, TT23, TT24), gave the new status law as a reason for deciding not to enter public education, and Trainee 27 gave it as the reason she was only going to teach part-time in a public school. Even when they have decided to continue as public-school teachers, trainees are well aware of the problems with the system: “I know that it’s kind of hopeless now, but I still, I still feel like I, yeah, I just can’t stop doing this” (TT30, p. 26). Trainee 33 used the same adjective to describe how she felt:

I feel a bit hopeless because I feel like that anything bad can happen from one day to another. So they can make a decision that could affect me really badly and I have no time to even prepare or think about it. (TT33, p. 11)

Connected to the status of the education system, the negative public view of teachers was also something that many teachers mentioned. Trainee 23 put this very strongly: “Teachers are like a doormat to society. No one respects them and it’s visible in all the aspects of teaching” (TT23, p. 8). Teachers being seen as not working hard was also mentioned: “most of the people, especially in Hungary, they believe that teachers are spoiled and because of the summer vacation, which we don’t have actually because everybody works during the summer, obviously because we need the money” (TT29, p. 11). Trainee 31 made much the same point:

...and some parents only see it, ‘Yeah, lucky teachers, they have a whole summer holiday and they don’t have to work and they get paid.’ And they don’t work long hours and, and well, yeah, that’s true that we don’t go to the school at midnight preparing for a lesson for the next day, and this is what they don’t see. (TT31, p. 15)

Parents were also mentioned as both attacking and supporting teachers:

So I think there are two sides, or two groups [...] some parents really support teachers, and they realize their importance, and they know that we need to change this situation. [...] But there is another group, and they can’t realize this problem. They think it’s still good and also the propaganda [...] and they, they hate teachers. They just see teachers who are on vacation in July and who are always crying because they don’t have enough money. (TT24, pp. 15-16)

The trainees were also aware of the way teachers were attacked on social media: “I sometimes read some of the comments on social media about the teachers. And ohh, I can get really angry from time to time” (TT30, p. 27). One other way in which the general negative view of teachers was apparent was in the cases of those trainees whose family or friends tried to dissuade them

from becoming a teacher or expressed incredulity at the idea. In one or two cases it was even their own teachers who attempted to put them off:

When I graduated from primary school, she was like begging me not to be a teacher. She was suggesting other ideas, like, “Please don’t, it’s really hard. It’s, it’s not worth it. Please don’t be a teacher. Please do something else. You have so many opportunities nowadays, please do something else. (TT10, p. 3)

The fact that all of these inhibiting factors were mentioned by so many of the trainees is an indication of the impact which they are having, an impact which means the extremely long and intensive training which is intended to produce novice teachers capable of shaping the future of education in the country is falling woefully short of its aim.

Conclusions

While it has only been possible to discuss a small part of the outcomes of the study, certain conclusions can still be drawn. The fact that out of a representative sample of the cohort of graduating trainees from the biggest teacher training programme in the country, so few graduate teachers are likely to remain in public education beyond a year or two is a reason for great concern, particularly in a country where there is an ever-growing shortage of teachers and where the average age of teachers in many schools is high. Moreover, in order for education systems to be able to exploit new technology effectively, especially in view of the rapid rise of AI and its implications for learning in all areas, it is imperative that there is a constant stream of new teachers. Zancajo et al. (2022) in their report on the response of European education systems to the pandemic, identify teacher development and wellbeing as a key area.

The need for new teachers and the new ideas they bring was graphically underlined by Trainee 4’s account of her LTP mentor’s reaction when observing the very different approach of her trainee to dealing with the pupils’ sometimes high energy levels:

My mentor got it completely and she was very excited about it. And she was like, oh, this is why we need new teachers to take over. Because I’m old and I don’t wanna do this anymore. And you still want to do this. (TT4, p. 11)

Her mentor was one year away from retirement.

If teacher training programmes in Hungary, and perhaps elsewhere, are to be more than just production lines for disaffected trainees, most of whom will not go into teaching or may just pass briefly through the public education system rather than re-energising and transforming it, then radical changes are needed both to the structure of the education system, including how new teachers are trained, but also to the image of teaching as a profession. And that will need to come from the top.

References

Bouchard, J. B., & Hull R. E. (1970). A pilot study of problems and practices in the induction of beginning teachers. New York State University College (ERIC Document Reproduction Service No. ED 040 157).

Czifra, B., Németh, E., Nagy, Z., & Tegzesné Czigler, E. G. (2021). A digitális oktatás tapasztalatainak értékelése [Evaluating the experiences of digital education]. Budapest: Állami Számvevőszék.

European Commission/EACEA/Eurydice, (2021). Teachers in Europe: Careers, development and well-being. Eurydice report. Luxembourg: Publications Office of the European Union. <https://eurydice.eacea.ec.europa.eu/publications/teachers-europe-careers-development-and-well-being>

Eurydice (2023). 9. Magyarország: Pedagógusok és oktatók 9.2 Magyarország: A pedagógusok munkakörülményei [9. Hungary: Teachers and trainers 9.2 Hungary: Working conditions of teachers]. European Commission. <https://eurydice.eacea.ec.europa.eu/hu/national-education-systems/hungary/magyarorszag-pedagogusok-munkakorulmenyei>

Husztai, E. (2020). A digitális egyenlőtlenség vizsgálata a társadalmi kirekesztődés szempontjából. [Examining digital inequality from the point of view of social exclusion]. *Acta Medicinae Et Sociologica*, 11(30), 67–81.

Johnston, B. (1997). Do EFL teachers have careers? *TESOL Quarterly*, 31(4), 681-712. <https://doi.org/10.2307/3587756>

Juhász, D. (2021, January 5). Egyre kevesebb a főállású pedagógus [There are fewer and fewer full-time teachers]. *Népszava* [The People's Voice]. https://nepszava.hu/3104843_egyre-kevesebb-a-foallasu-pedagogus

Magyar Közlöny [Hungarian Gazette], (2023, July 6). 2023. évi LII. törvény A pedagógusok új életpályájáról 4994 [LII of 2023. Act 4994 on the new life path of teachers]. Ministry of Justice. <https://magyarkozlony.hu/dokumentumok/8615f0642888805693ff027c1cee219e6243dcd6/megtekintes>

Nguyen, T. D., Chanh B. L., & Bruno, P. (2022). Is there a national teacher shortage? A systematic examination of reports of teacher shortages in the United States. *EdWorkingPaper*: 22-631. Retrieved from Annenberg Institute at Brown University: <https://doi.org/10.26300/76eq-hj3>

Patton, M. (2014). *Qualitative research and evaluation methods* (4th ed.). SAGE.

Prescott-Pickup, F. J. (2023). The experience of teaching during the Covid-19 pandemic and beyond: the view of new teachers. In Dr A. Dobos (Ed.), *Aktuális kihívások a szak/nyelvoktatásban: A módszertani megújulás lehetőségei*, Tanulmánykötet (pp. 50-58). Budapesti Corvinus Egyetem. https://unipub.lib.uni-corvinus.hu/8092/1/IOK_konferenciakotet_2022.pdf

Saldaña, J. (2021). The coding manual for qualitative researchers (4th ed.). SAGE.

Szivák, J. (1999). A kezdő pedagógus [The beginning teacher]. *Iskolakultúra*, 9 (4), 3-13. http://real.mtak.hu/61705/1/EPA00011_iskolakultura_1999_04_003-013.pdf

TASZ, (2023). Mit kell tudni a státusztörvényről? [What do you need to know about the Status Law?]. The Hungarian Civil Liberties Union. <https://tasz.hu/mit-kell-tudni-a-statusztorvenyrol>

UNICEF, (2020). Digitális oktatás és karantén Budapest egyik legnehezebb területén – a tanárok szemszögéből [Digital education and quarantine in one of the most difficult areas of Budapest - from the teachers' point of view]. <https://unicef.hu/blog/digitalis-oktatas-karanten-wesley-janos-iskola-hos-utca>

Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, 54(2), 143-178. <https://doi.org/10.3102/00346543054002143>

Zancajo, A., Verger, A., & Bolea, P. (2022). Digitilization and beyond: the effects of Covid-19 on post-pandemic educational policy and delivery in Europe. *Policy and Society*, 41(1), 111-128. <https://doi.org/10.1093/polsoc/puab016>

Zuljan, M. V., & Požarnik, B. M. (2014). Induction and early-career support of teachers in Europe. *European Journal of Education*, 49(2), 192-205. <https://www.jstor.org/stable/26609213>

INCLUSION, EQUITY AND DIVERSITY IN TEACHER EDUCATION

1. DISRUPTING THE MASTER NARRATIVE: A METHODOLOGICAL EXPLORATION OF EDUCATIONAL RESEARCH FOR SOCIAL JUSTICE

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Abstract

As researchers, we are often hardly aware of the influence that generally accepted perceptions and beliefs about proper research have on our research practices. Criteria like generalisability and objectivity are rarely questioned, and can be considered part of the methodological master narrative we all live with. This methodological master narrative is very powerful: it excludes both groups of people and forms of knowledge by defining what may pass for scientific research and what may not; what is true and real knowledge and what is not; what the role of the researcher and the so-called participants may be. In this way, dominant methodologies privilege certain ideas, experiences and groups of people while silencing other(s).

Therefore, this paper explores ‘methodological counternarratives’ that seek to do justice to marginalized voices in teacher education. In this exploration, we are informed and inspired by a form of research that explicitly addresses power and power relations: critical autoethnography (CAE). Critical autoethnographers acknowledge the inevitable privileges they experience alongside marginalization, and take responsibility for their subjective gaze through reflexivity. This form of research is expressly aimed at disrupting the dominant narrative and promoting social justice.

After an outline of what can be understood by CAE, this paper describes some concrete examples from our own research practices as a social justice-oriented education research group in which forms of CAE have supported us in the choices we made during the research process. These examples address issues like insider knowledge, stories and storytelling, positionality and commitment, and personal experiences.

Key words / phrases: *Social Justice; Methodology; Critical autoethnography*

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Disrupting the master narrative: a methodological exploration of educational research for social justice

Monique Leijgraaf

Introduction

“It’s lovely, but how are you going to make science out of this?!” The people to whom my colleague Nina Hosseini and I had presented our social justice-focused teacher education and qualitative research looked at us with confusion. They were impressed by the stories we had been telling them, but how do you turn stories into academic papers?

In another project in which I am actively involved and also participate as a researcher, I encountered a similar confusion. With concern, one of the partners in the project asked me about my active participation in the project: wasn't that at odds with my role as a researcher? As a researcher, wasn't I supposed to keep my distance?

In the process of supervising the research activities of our undergraduate students, I noticed that my fellow teacher educators and researchers had various opinions about the narrative voice students can best choose when writing a research article, with some colleagues explicitly advising against using the first person ('I').

These three small examples all reflect certain ideas and assumptions of what constitutes a good research project: good research strives for making generalisable statements instead of telling individual and personal stories; the researcher takes as objective a stance as possible within the situation being researched; and speaks in publications not from a subjective 'I' but from a more objective and distanced third person.

The criteria of generalisability and objectivity expressed in the three examples, could be complemented by other generally accepted criteria for good research, such as reliability, reproducibility and validity (Bochner, 2000; Leijgraaf, 2019). Moreover, as researchers, we are also often faced with established ideas about the form in which our research has to be represented in academic papers: a good academic paper consists of an introduction, literature review, method section, findings and discussion (Tony Adams, personal communication, July 2023).

All these criteria are part of what I would like to call here the methodological master narrative: academia's and society's generally accepted perceptions and beliefs of proper research methods and practices. In this paper, I want to explore ways in which this methodological master narrative can be disrupted in order to do more justice to marginalised voices in teacher education and educational research. More specifically, I want to explore how a disruption of the methodological master narrative in educational research can be inspired and informed by a form of research that explicitly addresses power and power relations: critical autoethnography. This form of research is expressly aimed at disrupting the dominant narrative and promoting social justice (Boylorn & Orbe, 2021). Before turning to critical autoethnography, I will first say something about the term master narrative, counternarratives and my own positionality within social justice-focused educational research.

Master narrative

The term 'master narrative' that I am using here, is derived from the work and thought of Toni Morrison (1931-2019). In an earlier publication (Leijgraaf, 2022), I introduced this term with a reference to Toni Morrison's debut novel *The bluest eye* (first published in 1970). This story is about a black girl named Pecola Breedlove, who discovers that all the world had agreed "that the blue-eyed, yellow-haired, pink-skinned doll was what every girl treasured" (Morrison, 2022, p. 18). Pecola is surrounded by a society that appreciates and privileges blond, blue-eyed children over children who cannot live up to this standard. The downside of this appreciation of whiteness is that Pecola is constantly regarded as 'ugly' because of her dark skin. In an effort to beautify herself, she wishes for blue eyes.

In an interview with Bill Moyers in 1990, Toni Morrison links Pecola's desire for blue eyes with the master narrative:

“MORRISON: She [Pecola Breedlove – ML] surrendered completely to the so-called master narrative.

MOYERS: To?

MORRISON: The master narrative, I mean, the whole notion of what is ugliness, what is worthlessness, what is contempt. She got it from her family, she got it from school, she got it from the movies, she got it everywhere.

MOYERS: The master narrative. What is — that's life?

MORRISON: No, it's white male life. The master narrative is whatever ideological script that is being imposed by the people in authority on everybody else. The master fiction. History. It has a certain point of view. So, when these little girls see that the most prized gift that they can get at Christmastime is this little white doll, that's the master narrative speaking. ‘This is beautiful, this is lovely, and you're not it’”

(Morrison, 1990; 2020, pp. 35-36).

Toni Morrison's choice of words indicates that power plays an important role in the master narrative. She defines the master narrative as an ideological script imposed on society by people who have the power to do so. Now, the impression might arise that this imposition happens very consciously and visibly, but that does not have to be the case. The tricky thing about the master narrative is that the people who live with the master narrative (whether they suffer or benefit from it) are barely aware of the existence of the master narrative and hardly realise the impact the master narrative has on their thinking, feeling and (re)acting. The master narrative is nowhere explicitly written down, but exists in people's minds and beliefs and has deep roots in the past.

By defining what is considered ‘normal’ within a society, the master narrative simultaneously marginalises anyone who diverges from this unspoken norm. The master narrative marginalises and oppresses groups of people on the basis of, for example, sexuality, gender, race, skin colour, disability or illness, socio-economic position, citizenship status, cultural capital, religion, nationality and age. It is important to note that people usually do not experience (dis)advantage on the basis of one of these mutually exclusive factors, but on the basis of an intersection of factors such as these (Truth, 2020; Lorde, 2007; Crenshaw, 1989; hooks, 1994; Wekker, 2016; Collins, 2000; Collins & Bilge, 2020). For instance, Pecola Breedlove experiences disadvantage not only because of her race, but on the basis of an interplay of at least race, colour, class, gender and sexuality. At the same time, it should be noted that the master narrative tells ‘monovocal’ stories about the groups it marginalises: it essentialises and wipes out the complexities and richness of those groups and engenders stereotyping (Montecinos, 1995 in: Solórzano & Yosso, 2016). While it privileges Whites, men, abled people, documented citizens, the upper class, heterosexuals and/or cisgenders by labelling these factors as natural or the norm, it distorts and silences experiences of marginalised groups. The discourse of the master narrative pretends to be neutral and objective, but is full of negative stereotypes about, for example, people of colour, working-class people and/or people living in poverty (Solórzano & Yosso, 2016).

Counternarratives

An important ‘weapon’ within the battle against the master narrative is formed by counternarratives. Within international literature, working with or creating counternarratives is regarded as an important strategy for social justice-oriented teacher education (Hosseini et al., 2021a; 2021b; in preparation). Counternarratives give shape to the voices that are systematically oppressed, suppressed and made invisible (Ellison, 1982) by the master narrative. In Critical Race Theory in particular, counternarratives play an important role (Delgado & Stefancic, 2023): stories of people whose experiences are not often heard and that interrupt the dominance of the frequently heard. For instance, Daniel Solórzano and Tara Yosso define the counternarrative or the counter-story as a method of telling the stories of racially marginalised people whose experiences are not often told and heard, and consider telling counternarratives as a form of resistance:

“The counter-story is also a tool for exposing, analyzing, and challenging the majoritarian stories of racial privilege. Counter-stories can shatter complacency, challenge the dominant discourse on race, and further the struggle for racial reform. Yet, counter-stories need not be created only as a direct response to majoritarian stories. As Ikemoto (1997) reminds us, ‘By responding only to the standard story, we let it dominate the discourse’ (p. 136). Indeed, within the histories and lives of people of color, there are numerous unheard counter-stories. Storytelling and counter-storytelling these experiences can help strengthen traditions of social, political, and cultural survival and resistance” (Solórzano & Yosso, 2016, p. 32).

Our exploration of the concept of counternarratives can be informed from postcolonial and decolonising perspectives as well (Young, 2020). For instance, Salman Rushdie coined the often quoted term ‘writing back’ to refer to postcolonial voices responding by writing back to the literary canon of the colonial centre. He urges the decolonisation of language and literature, so that the master narrative no longer dominates the discourse (Rushdie, 1982 – see also Leijgraaf, 2022).

Unfortunately, we should also note here that counternarratives do not automatically have the power to destroy the master narrative. For example, Toni Morrison notes in *Playing in the dark*, her personal inquiry into the significance of African-Americans in American literature, that slave narratives (in which unlike the master narrative was not spoken *for* or *of* Africans and their descendants but *by* them) did not instantly deprive the master narrative of its power:

“Whatever popularity the slave narratives had – and they influenced abolitionists and converted antiabolitionists – the slave’s own narrative, while freeing the narrator in many ways, did not destroy the master narrative. The master narrative could make any number of adjustments to keep itself intact” (Morrison, 1992, pp. 50-51).

Despite this, counternarratives do have the power to at least disrupt the master narrative. And therefore they need to be told and listened to; they need a stage.

Methodological master narrative

Research methodologies can also be dominated, unconsciously or not, by a master narrative. The three examples at the beginning of this paper illustrate, I believe, the extent to which certain generally accepted beliefs and assumptions about good research unconsciously influence our thinking about research. The quest for generalizable statements (or perhaps

even theories) and for objectivity that speak from the examples reveal how positivist views permeate our conceptions of not only the natural but also social sciences. Besides positivist traces, numerous colonial pitfalls and dangers lurk on our qualitative research today.

Jennifer Esposito and Venus Evans-Winters (2022) associate the first and traditional period of qualitative research (1900-1950) with positivist paradigms linked to colonialism:

“The purpose of research was to justify and learn how to colonize better and more efficiently. Indeed, all research was a colonial project that relied on a deficit notion of the *Other* or the *Savage* (Bishop, 1998; Smith et al., 2002). Research became the groundwork for reporting and representing this Other and was intimately linked to the colonial project that sought to dominate and control. As Denzin, Lincoln, and Smith (2008) argued, ‘as agents of colonial power, Western scientists discovered, extracted, appropriated, commodified, and distributed knowledge about the indigenous other’ (p. 5). In no uncertain terms, anthropology was an agent of Western domination. Falling under the positivist science paradigm, the white European colonizer anthropologist claimed to offer the scientific world valid, reliable, and objective firsthand accounts of his experiences in the field” (Esposito & Evans-Winters, 2022, pp. 8-9).

Jennifer Esposito and Venus Evans-Winters note that residual effects of these positivist colonial views are still very much present in qualitative research. In the same vein, I would like to argue that positivism and coloniality (Dzodan, 2019) are part of what may be called the methodological master narrative. To me (as to others), it is painful that, like society’s master narrative, this methodological master narrative also reproduces unequal structures and exclusion: it excludes both groups of people and forms of knowledge by defining what may pass for scientific research and what may not; what is true and real knowledge and what is not (Collins, 2000); what may be the role of the researcher and the so-called participants. Therefore, as far as I am concerned, creating methodological counternarratives is of great importance.

Positionality and commitment

Before turning to the exploration of critical autoethnography as an inspiration to disrupt the methodological master narrative in educational research, a few words about my own positionality and commitment (Morsi, 2022) regarding the master narrative, privilege and disadvantage. First of all, I acknowledge the privileges I have as a white, highly educated, documented, abled citizen in the Netherlands. At the same time: I experience certain disadvantages as well being a woman, being a first generation college student and coming from a somewhat crazy ‘in-between’ position when it comes to class and socio-economic status.

Having said this, I feel personally and professionally strongly committed to the struggle for a more socially just society and (teacher) education. In my work as a researcher and teacher educator, I hope to contribute to disrupting the master narrative and halting the often unconscious and unintentional continuation of unequal structures. Especially because of my privileged position, I want to take responsibility and contribute to ensuring that promoting social justice is not made the responsibility of those who have been forced into marginalised positions by our society and education system (Leijgraaf, 2022).

Critical Auto-Ethno-Graphy

As indicated earlier, in this paper I want to explore how forms of critical autoethnography (hereafter referred to as CAE) can contribute to breaking the methodological master narrative in educational research for social justice and creating methodological counternarratives. To this end, in this section I will first outline what can be understood by CAE.

Following Tony Adams, Stacy Holman Jones, and Carolyn Ellis (Adams et al., 2022; Tony Adams, personal communication, June 2023) I will start by unravelling the three characteristics or activities that are all conditional for a study to be called autoethnographic: the ‘auto-,’ the ‘-ethno-,’ and the ‘-graphy’. Likewise, I will address the adjective ‘critical’ (Figure one).

| Defining critical autoethnography | |
|-----------------------------------|--|
| ‘auto-’ | <ul style="list-style-type: none"> • foregrounds the researcher’s own lived experiences • demonstrates an insider perspective • unlocks access to otherwise unknown experiences and sense making • not objectivity but positionality • tries to avoid the danger of othering people |
| ‘-ethno-’ | <ul style="list-style-type: none"> • refers to society, culture, community (including theoretical insights and existing research) • connects personal experiences (the ‘auto-’) with cultural experiences and social happenings • values fieldwork (like ethnographers) |
| ‘-graphy’ | <ul style="list-style-type: none"> • art and craft of representation as a core component of research • no ‘objective,’ detached, and all-knowing papers but engaging and evocative representations • has storytelling at its heart, possibly using composite characters • ‘writing as inquiry’ |
| critical | <ul style="list-style-type: none"> • explicitly concerned with power and power relations • putting critical social theory into action through storytelling • aims at promoting social justice |

Figure 1: defining critical autoethnography

The ‘auto-’ of critical autoethnography

The ‘auto-’ relates to the researcher’s own lived experiences:

“We share intimate and vulnerable experiences that sometimes bring forth shame or sorrow; experiences and situations that shaped us and these events; and moments that

motivated joy, confusion, conflict, grief, passion, and possibly trauma. We tell about these events and feelings to show how we and others with whom we interact might make sense of a life, disrupt unnecessary silences about uncomfortable issues, and reveal stories that haven't been told before (or told well). We hope these stories challenge institutional and insidious ideas and practices, as well as offer lessons about making do, getting by, and living our best lives" (Adams et al., 2022, p. 3).

While not all autoethnographic projects should aim to break the dominant narrative (far from it!), certain personal experiences can be identified that may lead to powerful counternarratives. For example, experiences of people who are not or 'mono-vocally' and stereotypically represented in existing research. Especially when the researcher can demonstrate an insider perspective on a marginalised situation, that researcher can unlock access to experiences and sense making that would otherwise remain unknown (loosely based on personal communication with Tony Adams, July 2023).

By foregrounding the researcher's personal experiences and reflections, autoethnographic studies break with the positivist's and colonial strive for objectivity: "There is no 'neutral' or 'objective' stance from which to view human social phenomena" (Poulos, 2013, p. 39). By making the researcher's experience central and crucial to the research, autoethnography chooses a radically different path on which the researcher's positionality is not only accepted but also embraced and required (Adams et al., 2022). This embracing of our positionality, however, can reveal that we sometimes cannot escape the oppressive aspects that our positionality entails. Whether we like it or not: we sometimes do conform to oppressive processes as a researcher. György Mészáros argues for openness and transparencies in case of inevitable conformation with oppressive structures:

"Conforming is not totally avoidable, and we cannot get rid of our socioeconomic conditions and situatedness. What we can do is to make this conforming visible.

With our reflective writing, we can unmask and denounce the exploitative and oppressive processes we conform to, and at least in this way we may contribute to the struggle against them" (Mészáros, 2015, p. 718).

This autoethnographic path also (thankfully) complicates the pitfall of doing research *for* 'others' and thereby othering people: in autoethnographic research, the researchers are always part of what is being researched, and there is always something at stake for the researchers themselves. Especially from a social justice perspective, this is a very important premise. Doing research *for* 'others' entails that the researcher would be the outsider analysing the lives of 'others' (cf. Toni Morrison's remark that the master narrative speaks *for* or *of* marginalized people) in order to tell those 'others' from a so called objective outsider position what would be better for them. But emancipation or liberation is not something that someone (being an academic or not) can realize for 'others': emancipation or liberation can only be realized by people themselves, with each other. Therefore, social justice-oriented educational researchers can never function as 'objective outsiders' who mine and analyse 'other' people's experiences in order to show them their path to emancipation. Instead, together with the research participants, the researchers (try to) find, create and walk together the path to emancipation and liberation. By making their own experiences a core element of their research and embracing at least a partial insider

perspective (like autoethnographers do), educational researchers for social justice include themselves in the practices being explored and challenged.

The '-ethno-' of critical autoethnography

It is a misunderstanding to think that the mere use of personal experiences automatically makes a project an autoethnographic project. Autoethnographers tell their personal stories to describe and also critique cultural life, expectations, beliefs, practices, values and identities. That is the '-ethno-' part of autoethnography (Adams et al., 2022). The '-ethno-' refers to culture, society, community groups, cultural life, and patterns of behaviour. This is the part that pushes the researchers outside of and beyond themselves (Adams & Herrmann, 2023). To put it differently, the '-ethno-' is the component where the culture (including theoretical insights and existing research) and the personal (the 'auto-') connect:

“At its core, autoethnography embraces how personal experience is infused with cultural norms and expectations, and autoethnographers engage in rigorous self-reflection – often referred to as ‘reflexivity’ – in order to identify and interrogate the intersections between self and social life. (...) [A]utoethnography brings together the personal and the cultural. If a project does not engage ethnographic techniques, ask questions of culture, and/or provide an understanding of social life, then the project may not fit the definition of autoethnography” (Adams et al., 2022, p. 3).

Like ethnographers, autoethnographers value fieldwork: taking fieldnotes in natural settings, conducting formal or informal interviews, including unsolicited and informal conversations with others and other everyday experiences, doing archival research, engaging extant theories and research as well as popular cultural artifacts (like movies, novels, news reports, social media), et cetera (Adams & Holman Jones, 2018).

It is a false assumption people sometimes have that autoethnographic researchers would be solely focused on themselves. Whereas Ronald Pelias (2014) refutes the accusation of navel-gazing by pointing out that his navel (the 'auto-') quickly leads him to other people, the '-ethno-' component of CAE (society, culture, community) makes the accusation of navel-gazing untenable. Good autoethnography includes the voices of others (Tony Adams, personal communication, July 2023). As a strong example of this, I would like to mention *Sweetwater* (Boylorn, 2017), in which Robin Boylorn gives an autoethnographic account of black women from the community in the rural South where she grew up as a child, and in which she connects her own experiences with many of the stories that she learned from her female family members and other women of the community. As a powerful example of an autoethnographic project where the included voices of others consist of scholarly works and researched data, I would like to refer to Shelly Carter's first person account of a woman living in an abusive relationship (2002). By dividing the text into two columns (one for academic discourse [the '-ethno-'] and one for the journal she kept during her abusive relationship [the 'auto-']), Sheila Carter literally juxtaposes experiences of abuse against information derived from research literature. Doing so, she questions the so called objectivity in scholarship and brings her own voice to what academic research has written about women in abusive situations.

The ‘-graphy’ of critical autoethnography

Similar to ethnography, autoethnography includes the art and craft of representation as a core component of its research:

“In addition to the auto and the ethno, autoethnographers take the craft of representation—the ‘graphy’—seriously. Good life writing *and* good ethnography,

both of which comprise the core of autoethnography, offer compelling and insightful accounts of personal/cultural experience; as authors of successful texts/performances/digital works, we rarely present ourselves as ‘objective,’ detached, and all-knowing, and we work hard to make engaging and evocative projects” (Adams et al., 2022, p. 3).

In her paper on writing as inquiry, Laurel Richardson confesses that for 30 years, she has abandoned countless qualitative studies only half-read, half-scanned because she found the texts boring and passive voiced (Richardson, 2000). In her search for possible causes for the boredom of many qualitative studies, she actually stumbles upon a kind of master narrative that dominates our thinking about research and writing, and which has its roots in the 19th century. The master narrative namely that, as a researcher, you do not write because you want to find something out or learn something that you did not know before you wrote it; but that you start writing only when you know exactly what you want to write and when your points are carefully organised and outlined. Problematic with this model, in Richardson’s view, is that it ignores the role of writing as a dynamic, creative process and that it requires writers/researchers to silence their voice and to consider themselves as contaminants.

Against this dominant idea, Richardson posits the idea of writing as inquiry and writing as methodology, an idea taken a step further by Julia Colyar who suggests including a subsection on the writing process when we describe our methods (Colyar, 2009).

Creating and telling compelling tales can take many forms within CAE, both textual and non-textual. In the before mentioned book *Sweetwater*, Robyn Boylorn chose to work with composite characters, which allowed her “to tell stories without attributing them to individual women” (Boylorn, 2017, pp. 188-189). She also included poetry into her work. Apart from textual representations, autoethnographic projects are also presented in forms such as performance, music, dance, video and film, and photography.

The adjective ‘critical’ in critical autoethnography

The adjective ‘critical’ indicates that CAE is explicitly concerned with power (relations) and values marginalised identities, experiences and knowledges:

“[W]here some autoethnographies might provide rich and detailed descriptions of cultures through the lens of personal experience, critical autoethnographies work to bring attention to the ways cultures are created and compromised through institutional, political, social, and interpersonal relations of power. That is, they focus on how experiences within cultures are enlarged and/ or constrained by relations of power. Critical autoethnographers view their work as a means of pointing out the *politics* of their positioning, explicitly acknowledging the inevitable

privileges and marginalizations they experience and the ‘responsibility to address processes of unfairness or injustice within a particular lived domain,’ including the practices of research itself (Madison, 2012, p. 5)” (Holman Jones, 2018, p. 5).

Critical autoethnographers recognise the privileges they experience alongside marginalisation and take responsibility for their subjective gaze through reflexivity and their critical stance towards their intersectional positionings (Boylorn & Orbe, 2021).

Stacy Holman Jones (2018) identifies three interwoven goals of critical autoethnography. Firstly, the ‘diagnostic’ goal to examine systems that privilege some people and marginalise others. Secondly, to mobilize and develop explanatory frameworks that critical theory provides us – like Black feminist thought, queer theory, materialist and new materialist critiques – by putting that theory into action through storytelling. Thirdly, to build new knowledge about the social world in order to stimulate new practices. These three goals demonstrate how forms of CAE are explicitly aimed at identifying and disrupting the master narrative in order to promote social justice.

A book like *Critical Autoethnography – intersecting cultural identities in everyday life*, edited by Robyn Boylorn and Mark Orbe (2021), can be seen as an illustration of the many forms CAE can take as well as the variety of issues it focuses on. The book approaches CAE “from multiple perspectives and genres, sometimes incorporating traditional scholarship with experimental writing techniques, and other times demonstrating a familiarity with research without explicitly citing it (Ellis & Adams, 2014)” (Boylorn & Orbe, 2021, p. 10). In the various chapters, the contributing authors address experiences of gender, language, race, ability, citizenship status, sexuality and/or spirituality situated within larger systems of power, privilege and oppression.

It should be noted, however, that the above interpretations of the adjective ‘critical’ are not considered critical enough from critical-Marxist perspectives. György Mészáros for instance, labels them as ‘soft’ interpretations of *critical* autoethnography, because they lack “a systemic, dialectical, materialist analysis” (Mészáros, 2017, p. 90). Therefore, as a critical-Marxist educational researcher who advocates CAE, he interprets and analyses his personal experiences in a dialectical, historical materialist way and in doing so demonstrates that CAE “can be epistemologically positioned in Marxist critical theorizing” (just as “Marxist research is rewarded by studying subjectivity” in a CAE way) (Mészáros, 2015, p. 720).

Exploring methodological counternarrative(s)

In this final section, I would like to share some considerations and reflections stemming from our own research practices where we have been informed and inspired by forms of CAE. I want to do this by describing concrete examples from our research practices in which forms of CAE have supported us in the choices we have (had) to make during the research process. I will describe the first five examples in this section; for the remaining examples, I refer to Figure 2.

| Examples of how our social justice-oriented educational research experiences support and inspiration from critical autoethnography | |
|--|---|
| # 1 | Critical autoethnography helps us better unravel our research aim |
| # 2 | Critical autoethnography supports us in demonstrating insider knowledge and limitations within existing research |
| # 3 | Critical autoethnography inspires and supports us to value stories and storytelling |
| # 4 | Critical autoethnography enables us to take seriously our own funds of knowledge and identity |
| # 5 | Critical autoethnography backs both our break with the strive for objectivity and our desire to embrace and give clarity about our positionality and commitment as researchers |
| # 6 | Critical autoethnography helps us to take the danger of mining seriously and supports us in our efforts to avoid using other people's experiences for our own benefit |
| # 7 | Critical autoethnography supports our commitment to including other people's voices in a socially just and ethical way, and avoiding othering the people that participate in our research |
| # 8 | Critical autoethnography has a rich and vivid tradition of asking and discussing ethical questions that challenge and stimulate our own ethical reflections (for instance, Carolyne Ellis's reflections on relational ethics [2007]) |
| # 9 | Critical autoethnography enables us to include unexpected moments, conversations and experiences we could never prepare for with a formal research protocol |
| # 10 | Critical autoethnography is known for its creative, evocative and accessible forms of representation, which inspired us, for example, to present our research in the form of a performance at a Dutch-Flemish conference for teacher educators (Leijgraaf et al., 2023) |

Figure 2: Our social justice-oriented educational research and critical autoethnography

#1: Critical autoethnography helps us better unravel our research aim

As a social justice-oriented education research group, we want to fight structures of inequality in (teacher) education because of the impact they have on people, especially on people from marginalized groups. Therefore, much of our research involves exploring ways in which individuals (including ourselves) respond to and cope with structures of inequality

in society and in the educational system in which they find themselves. What coping strategies do people employ when dealing with unequal power relations in (teacher) education arising from factors such as religion, gender, race, language, class and/or socioeconomic status? How do people face, handle or fight the master narrative? From the perspective of CAE, our research aim can be seen as a critical connection between the ‘-ethno-’ (namely the structures of inequality in [teacher] education and the master narrative we want to disrupt) and the ‘auto-’ (namely the experiences of both ourselves and students, [student] teachers, teacher educators, parents and others involved in [teacher] education). This perspective helps us to better and more consciously unravel our research aim. For instance, one of my colleagues and co-researchers named Zena Bani was pretty determined on her research topic: Islamophobia in teacher education. Being a Muslim and a teacher educator, primary school teacher and former student teacher herself, she is unfortunately familiar with many situations within (teacher) education that have to be characterized as Islamophobic. So she knew early on that she wanted to contribute to creating a stage for such experiences of (student) teachers and to fight the Western master narrative that in the end equals Muslims with terrorists. As a research group, we were seeking ways to do that research-wise. CAE helped us to understand this project’s research aim as a critical connection between the ‘-ethno-’ (namely the Dutch or Western master narrative about Islam that we want to fight) and the ‘auto-’ (namely Zena’s and other [student] teachers’ experiences with Islamophobia in [teacher] education). This insight gave Zena more freedom to design her research project. It made her decide to start by writing down her own personal experiences as a Muslim in the Netherlands and in the Dutch education system; to invite other (student) teachers to tell their own stories and experiences on this topic (the ‘auto-’); and to bring these stories in critical connection with theories, existing research and popular cultural artifacts that reflect the topic of Islamophobia (the ‘-ethno’).

#2: Critical autoethnography supports us in demonstrating insider knowledge and limitations within existing research

The opportunity CAE offers to contribute to (a) ‘demonstrating insider knowledge’ and (b) ‘demonstrating limitations within existing research or representation’ is another aspect that makes CAE so valuable and inspiring to our research group. We all have various experiences of privilege and disadvantage based on, for example, race, skin colour, disability or illness, socio-economic position, cultural capital, religion, language, nationality, sexuality, gender and/or age. As indicated earlier, Zena (regrettably) has a lot of insider knowledge of her research topic: Islamophobia. Existing research, at best, only investigates Muslims facing experiences of Islamophobia, making this marginalized group the object of study (speaking *for* or *of* them [Morrison, 1992] and making them the Other [Said, 2003]), whereas Zena envisages stories of Islamophobia being told *by* (student) teachers (including herself) who experience it. CAE offers her help and inspiration in this endeavour.

The same can be said for another member of our research group, named Lisanne Plutschouw, whose work as a researcher and teacher educator focuses on multilingualism. Being the partner of an Iraqi Arabic-speaking man with whom she raises their children

multilingually, Lisanne can offer unique, firsthand insights into negative stereotypes about Arabic languages which dominate Dutch culture and society. Arabic, like most other non-Western and Eastern European languages, is considered a subtractive second language in the Netherlands: the language has a lower status in Dutch society than Western second languages such as English and French. Arabic is thought of as a language that can be of hardly any value to children, and education professionals gave Lisanne (thereby excluding her Iraqi Arabic-speaking partner and father of the children) the unsolicited advice not to raise the children bilingually. These experiences, too, are not adequately represented in existing research. By valuing the demonstration of insider knowledge, CAE gives Lisanne the opportunity and freedom to include her own unique experiences in her research project and in doing so, to fill in gaps in existing research.

#3: Critical autoethnography inspires and supports us to value stories and storytelling

Whereas the methodological master narrative generally values generalizable statements and theories over individual and personal stories, CAE inspires and supports us to value stories and storytelling as a core component of our research. It could be argued that CAE rephrases the question of how to turn stories into academic papers to the question of how to make stories the heart of your research project.

This appreciation of stories also encourages us to seek inspiration from scholars and storytellers outside the field of CAE who disrupt the master narrative, like Aminata Cairo and Chimamanda Ngozi Adichie. Being a scholar and storyteller, Aminata Cairo makes a case for a storytelling approach to change:

“Storytelling is not always appreciated or taken seriously. We tell stories to children for entertainment. However, as a part of my heritage, storytelling is also a means to learn your place in the family and affirm your existence in the world as a whole.
(...)

Those with traditions of storytelling believe that stories touch us and affect us on a deep level. (...) Stories can stir something deep within us and plant a seed for change that will sprout when the time is right” (Cairo, 2021, pp. 21-22).

To Aminata Cairo, stories are essential in our pursuit to social justice: stories can stir something in us; they can make us aware of injustices and they can spur us to action and change.

This power of stories and storytelling is also at the heart of the TED-talk by the Nigerian American writer Chimamanda Ngozi Adichie, *The danger of the single story*:

“Stories matter. Many stories matter. Stories have been used to dispossess and to malign. But stories can also be used to empower, and to humanize. Stories can break the dignity of a people. But stories can also repair that broken dignity” (Adichie, 2009).

Restoring the broken dignity of gifted children and their parents in Amsterdam Nieuw-West – a neighbourhood populated mainly by people from marginalised groups whose families have a history of migration from non-Western countries – could be seen as the drive of our co-researcher and teacher Fatima El Khattabi. Long before our research group existed, she started collecting stories told by gifted children and their parents in this neighbourhood. She herself had also experienced that society assumes that gifted children only live in affluent neighbourhoods and not in deprived neighbourhoods. She noticed that as a result of this

prejudice, gifted children in Amsterdam Nieuw-West were easily labelled with for instance ADHD, and even put on medication, while the real problem was not properly acknowledged: these children are not adequately challenged. Because of her aspiration to disrupt this master narrative about gifted children in neighbourhoods like Amsterdam Nieuw-West, she was very happy to learn that stories and research do not have to exclude each other. She feels supported and inspired by CAE and the opportunities it offers to not just take personal experiences and stories seriously, but also to make them the centre of her research.

#4: Critical autoethnography enables us to take seriously our own funds of knowledge and identity

The methodological master narrative teaches researchers to make rational choices and decisions during the research process, increasing the feasibility for other researchers to replicate the study (including the choices and decisions made during the research process). During a reflective conversation we had as a research group in the context of Nina Hosseini's PhD research, we realized the extent to which this dominant methodological narrative subconsciously controlled our thinking. We were discussing how our existing knowledge (books we had read, documentaries we had seen), issues that mattered to us (such as Nina's housing activism) and people we knew (like Zena's friend Esther Kamara who became a crucial co-researcher) had significantly influenced the research process. Initially, we tended to negatively label this as 'coincidences' that weakened the study. But CAE made us realise that we could also interpret this as the 'auto-' being at work in our choices and decisions as researchers: we were able to design certain research activities because of the books we had read, documentaries we had seen, activist life we lived and friendships we valued. Thanks to CAE, we positively relabelled our choices and decisions during the research process as mobilizing our own funds of knowledge and identity (Moll et al., 1992; Hogg & Volman, 2020).

#5: Critical autoethnography backs both our break with the strive for objectivity and our desire to embrace and give clarity about our positionality and commitment as researchers

"Twenty-three years ago, I emigrated to the Netherlands as a Canadian. Never was the difference between my country of birth and my new home greater than when, in 1999, I saw a museum announce their new exhibition with a large banner bearing the word 'Eskimos'. Many years earlier, in Canada, I had learned that the term 'Eskimo' was outdated and perhaps even racist. How could it still be in use here in the Netherlands? I was equally perplexed when I came across the term 'Indians' in a textbook [at the primary school where I worked – ML] (...). Had we not long since moved away from such erroneous terms?"

These are the opening words of the bachelor thesis by one of the now graduated student teachers from our research group: Ben McKay. In his thesis, Ben explicitly embraces his positionality as a Canadian immigrant. That positionality helps him unmask the term 'Indians' in the Dutch textbook as Western and colonial and supports his strive to include indigenous voices in both his research and Dutch teaching practices. Although Ben's undergraduate thesis does not pretend to be a CAE project, it is fair to say that the break with

objectivity and embrace of positionality advocated by CAE has given him the freedom to make his own Canadian-Dutch experiences part of his research project. Hopefully, these examples illustrate the extent to which CAE helps us to critically examine our and other people's experiences with privilege and disadvantage, which hopefully leads to a disruption of the master narrative and powerful counternarratives.

With many thanks to my co-researchers. They consented to be called by their own names in this paper.

Editor's note: *The formatting of the text reflects its content, therefore, it has deliberately been left different from other articles in this volume.*

Bibliography

- Adams, T. E., & Herrmann, A. F. (2023). Good autoethnography. *Journal of Autoethnography*, 4(1), 1-9. doi:<https://doi.org/10.1525/joae.2023.4.1.1>
- Adams, T. E., & Holman Jones, S. (2018). The art of autoethnography. In P. Leavy (Ed.), *Handbook of arts-based research* (pp. 141-164). Guilford Press.
- Adams, T. E., Holman Jones, S., & Ellis, C. (2022). Introduction. Making sense and taking action: Creating a caring community of autoethnographers. In T. E. Adams, S. Holman Jones, & C. Ellis (Ed.), *Handbook of autoethnography* (2nd ed., pp. 1-19). Routledge.
- Adichie, C. (2009). *The Danger of a Single Story*.
https://www.ted.com/talks/chimamanda_ngozi_adichie_the_danger_of_a_single_story
- Bochner, A. P. (2000). Criteria against ourselves. *Qualitative Inquiry*, 6(2), 266-272. doi:<https://doi.org/10.1177/107780040000600209>
- Boylorn, R. (2017). *Sweetwater: Black women and narratives of resilience. Revised edition*. Peter Lang.
- Boylorn, R., & Orbe, M. P. (Ed.). (2021). *Critical autoethnography. Intersecting cultural identities in everyday life. Second edition*. Routledge.
- Cairo, A. (2021). *Holding space. A storytelling approach to trampling diversity and inclusion*. Aminata Cairo Consultancy.
- Carter, S. (2002). How much subjectivity is needed to understand our lives objectively. *Qualitative Health Research*, 12(9), 1184-1201. doi:<https://doi.org/10.1177/104973230223824>
- Collins, P. H. (2000). *Black feminist thought. Knowledge, consciousness, and the politics of empowerment* (Second ed.). Routledge.
- Collins, P. H., & Bilge, S. (2020). *Intersectionality* (2nd ed.). Polity Press.
- Colyar, J. (2009). Becoming writing, becoming writers. *Qualitative Inquiry*, 15(2), 421-436. doi:<https://doi.org/10.1177/1077800408318280>
- Crenshaw, K. (1989). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*(1, Article 8), 139-167.
- Delgado, R., & Stefancic, J. (2023). *Critical race theory. An introduction* (Fourth ed.). New York University Press.

- Dzodan, F. (2019). The coloniality of the algorithm. *Sonic Acts Festival*. De Brakke Grond. https://www.youtube.com/watch?v=J0gzQLnQcHI&ab_channel=SonicActs
- Ellis, C. (2007). Telling secrets, revealing lives: Relational ethics in research with intimate others. *Qualitative Inquiry*, 13(1), 3-29. doi:10.1177/1077800406294947
- Ellison, R. (1982). *Invisible man* (Special 30th Anniversary Edition with an Introduction by the Author ed.). Random House.
- Esposito, J., & Evans-Winters, V. (2022). *Introduction to intersectional qualitative research*. Sage.
- Hogg, L., & Volman, M. (2020). A synthesis of funds of identity research: Purposes, tools, pedagogical approaches, and outcomes. *Review of Educational Research*, 90(6), 862-895. doi:10.3102/0034654320964205
- Holman Jones, S. (2018). Creative Selves/creative cultures: Critical autoethnography, performance and pedagogy. In S. Holman Jones, & M. Pruyne (Ed.), *Creative selves/creative cultures: Critical autoethnography, performance and pedagogy* (pp. 3-20). Palgrave Macmillan.
- hooks, b. (1994). *Teaching to transgress. Education as the practice of freedom*. Routledge.
- Hosseini, N., Leijgraaf, M., Gaikhorst, L., & Volman, M. (2021a). Conceptions and practices of teacher education for social justice: A scoping review of the international literature. Online presentation annual conference ATEE.
- Hosseini, N., Leijgraaf, M., Gaikhorst, L., & Volman, M. (2021b). Kansengelijkheid in het onderwijs: een social justice perspectief voor de lerarenopleiding. *Tijdschrift voor Lerarenopleiders*, 42(4), 15-25.
- Hosseini, N., Leijgraaf, M., Gaikhorst, L., & Volman, M. (in preparation). Social justice-oriented teacher education: a scoping review of the literature (working title).
- Leijgraaf, M. (2019). On earlier positivistic approaches versus current social justice orientations. In M. A. Peters (Ed.), *Encyclopedia of Teacher Education*. Springer. doi:10.1007/978-981-13-1179-6_180-1
- Leijgraaf, M. (2022). "I honestly don't understand how this system can exist." *Promoting social justice & equity by disrupting the master narrative*. Hogeschool IPABO. <http://moniqueleijgraaf.com/Publications/> or <https://www.ipabo.nl/publicatie/i-honestly-dont-understand-how-this-system-can-exist-promoting-social-justice-equity-by-disrupting-the-master-narrative/>
- Leijgraaf, M., Hosseini, N., Bani, Z., & Plutschouw, L. (2023). Methodologisch netwerken: het dominante verhaal doorbreken via storytelling. Performance lecture VELON / VELOV conferentie.
- Lorde, A. (2007). *Sister outsider. Essays and speeches*. Crossing Press.
- Mészáros, G. (2015). The 'gay eye' of a researcher and a student in a Hungarian school: Autoethnography as critical interpretation of the subject. In P. Smeyers, D. Bridges, N. C. Burbules, & M. Griffiths (Ed.), *International handbook of interpretation in educational research* (pp. 705-726). Springer Netherlands.
- Mészáros, G. (2017). The position of an educational researcher in a semi-peripheral region: Critical autoethnography of an academic subject in Hungary. In L. Ransinski, D. Hill, & C. Skordoulis (Ed.), *Marxism and education* (pp. 89-100). Routledge.

- Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice*, 31(2), 132-141.
- Morrison, T. (1990, March 11). Toni Morrison on love and writing (Part one). (B. Moyers, Interviewer). <https://billmoyers.com/content/toni-morrison-part-1/>
- Morrison, T. (1992). *Playing in the dark. Whiteness and the literary imagination*. Harvard University Press.
- Morrison, T. (2020). *The last interview and other conversations*. Melville House.
- Morrison, T. (2022). *The bluest eye*. Vintage Classics.
- Morsi, Y. (2022). Using ‘auto-ethnography’ to write about racism. In T. E. Adams, S. Holman Jones, & C. Ellis (Ed.), *Handbook of autoethnography* (2nd ed., pp. 505-512). Routledge.
- Pelias, R. J. (2014). *Performance: An alphabet of performative writing*. Routledge.
- Poulos, C. N. (2013). Autoethnography. In A. A. Trainor, & E. Grave (Ed.), *Reviewing qualitative research in the social sciences* (pp. 38-53). Routledge.
- Richardson, L. (2000). Writing: a method of inquiry. In N. K. Denzin, & Y. S. Lincoln (Ed.), *Handbook of qualitative research. Second edition* (pp. 923-948). Sage Publications, Inc.
- Rushdie, S. (1982, July 3). The empire writes back with a vengeance. *The Times. The Times Digital Archive*, p. 8. link.gale.com/apps/doc/CS134843107/TTDA?u=ipabo&sid=bookmark-TTDA&xid=2a79b5f9
- Said, E. W. (2003). *Orientalism*. Penguin Books.
- Solórzano, D. G., & Yosso, T. J. (2016). Critical race methodology. Counter-storytelling as an analytical framework for educational research. In E. Taylor, D. Gillborn, & G. Ladson-Billings (Ed.), *Foundations of critical race theory in education* (Second ed., pp. 127-142). Routledge.
- Truth, S. (2020). *Ain't I a woman*. Penguin Books.
- Wekker, G. (2016). *White innocence. Paradoxes of colonialism and race*. Duke University Press.
- Young, R. J. (2020). *Postcolonialism: a very short introduction* (Second ed.). Oxford University Press.

2. INCLUSION: HOW CRUCIAL IS TEACHER EDUCATION? SPECIAL TEACHER EDUCATION AND RECRUITMENT AS NON-TRADITIONAL FACTORS OF INEQUALITY FOR THE QUALITY OF INCLUSION IN THE ITALIAN CONTEXT

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Abstract

The role of schools in achieving an ever-higher degree of social justice is internationally recognised: hence the need to assume equity as a pedagogical horizon of meaning to improve people's life trajectories through education. Nevertheless, various inequalities impact on students' paths: we propose the category of non-traditional factors of inequality to understand how school systems and schools create inequalities. We fit into the international debate on the shortage of specialised special needs teachers; our aim is to understand how and why special teacher education and recruitment are configured as non-traditional factors of inequality. Our focus on the Italian context allows us to give a contextual interpretation of the phenomenon. After an excursus on the legislation in terms of special teacher education and recruitment, we analyse the results of a study conducted between February and April 2023 to understand (1) if and why special teacher education and recruitment can be considered non-traditional factors of inequality that undermine inclusion quality and (2) what teachers' and parents' perspectives on the phenomenon are. After a data analysis using the Ministry of Education and ISTAT databases, two asynchronous online focus groups were conducted in two Facebook communities with parents and teachers. Ministry of Education and ISTAT data confirm that special teacher education and recruitment are non-traditional factors of inequality; the testimonies collected in the focus groups also reveal distorting dynamics in terms of equity and inclusion quality. Therefore, reflection is needed (in Italy but not only) to make special teacher education and recruitment more effective.

Keywords: *school; equity; non-traditional factors of inequality; inclusion; special teacher education*

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Introduction

This paper is part of the international debate on the shortage of special needs teachers; in particular, it explores the issue of special teacher education and recruitment as dynamics that give rise to this phenomenon. Within the theoretical-conceptual framework of equity in education, this dynamic is seen as the cause of inequality among students created by school systems and schools due to national educational policies and the organisation of individual institutions.

Firstly, we develop a theoretical-conceptual framework on equity and social justice in education, positioning ourselves among the different interpretations of these constructs. Again, we introduce the interpretative category of non-traditional factors of inequality to place school systems and schools under investigation and understand how they give rise to inequality dynamics through the classroom actions of teachers, the governance of individual schools and national educational policies.

Secondly, we focus on inclusion quality and use the framework developed to read special teacher education and recruitment as non-traditional factors of inequality. In fact, their procedural ineffectiveness produces a shortage of specialised special needs teachers at the international level, with the necessary recourse to non-specialist figures who lack the skills to be those contextual agents of change to make schools environments fit for the people who live in them.

Thirdly, we focus on the Italian context: in the face of cutting-edge legislation on inclusion and well-defined special teacher education and recruitment procedures, problematic dynamics emerge precisely due to the shortage of special needs teachers. Having investigated the issue thanks to the literature on the subject, we examine the results of a study conducted in Italy between February and April 2023: a data analysis conducted thanks to the databases of the Ministry of Education and ISTAT and two subsequent asynchronous online focus groups conducted in two Facebook communities with teachers and parents allowed us to understand if and why special needs teacher education and recruitment are configured as non-traditional factors of inequality and what the perspectives of the different actors on the issue are.

The focus on the Italian context, besides allowing a contextual reading of the phenomenon, allows us to elaborate reflections that can be extended to those international contexts that share similar problems and similar educational policies. The interpretation of the problem within the theoretical framework of the non-traditional factors of inequality facilitates us in thematising the issue of the quality of inclusion as a systemic problem.

Theoretical framework

Social justice, equity and inequalities in education

The role of education in achieving an increasing degree of social justice is internationally recognised (OECD, 2012; UNICEF, 2013; 2021), sometimes even in the form of political engagement for a more equitable and sustainable future (UN, 2015). It is about building a more cohesive, democratic and inclusive society in which all are actors in History and active participants in the participatory processes of citizenship (Adams, 2007; Bell, 2007; Gerwitz, 2006; Griffiths, 2003; Hackman, 2005). Therefore, taking equity as a horizon of pedagogical meaning becomes unavoidable (Ainscow, 2020a; 2020b; Jurado de Los Santos et al., 2020): it is necessary to ensure that everyone has an excellent education for the acquisition of the capabilities to exercise citizenship in terms of active participation in political, social, cultural, economic life on the local and global levels without diversity turning into inequality (Ferrero, 2023a).

These ideals are shared internationally, but it is difficult to realise them (OECD, 2023; UNICEF, 2018). Social reproduction (Bourdieu, 1966; Bourdieu & Passeron, 1964; don Milani, 1967) is still active: in fact, in most cases children replicate their parents' educational, professional and personal paths without being able to change their socio-economic and socio-cultural status. Parents' economic situation and educational level are causes of inequality that

are external to the school and are considered as classic. However, there is a need to move beyond this interpretation and focus on the role of school in producing inequalities (Mayabi, 2015; Thompson, 2019), as also affirmed by the ethnography of education (Florio-Ruane, 1989; Gobbo, 2011; Goldring, 2002). Here, we propose the interpretative category of non-traditional factors of inequality, introduced by Ferrer-Esteban (2011) and later deepened by other studies (Ferrero, 2023b; Granata & Ferrero, 2022; Mincu, 2015), to investigate the action of school systems and schools in producing inequalities.

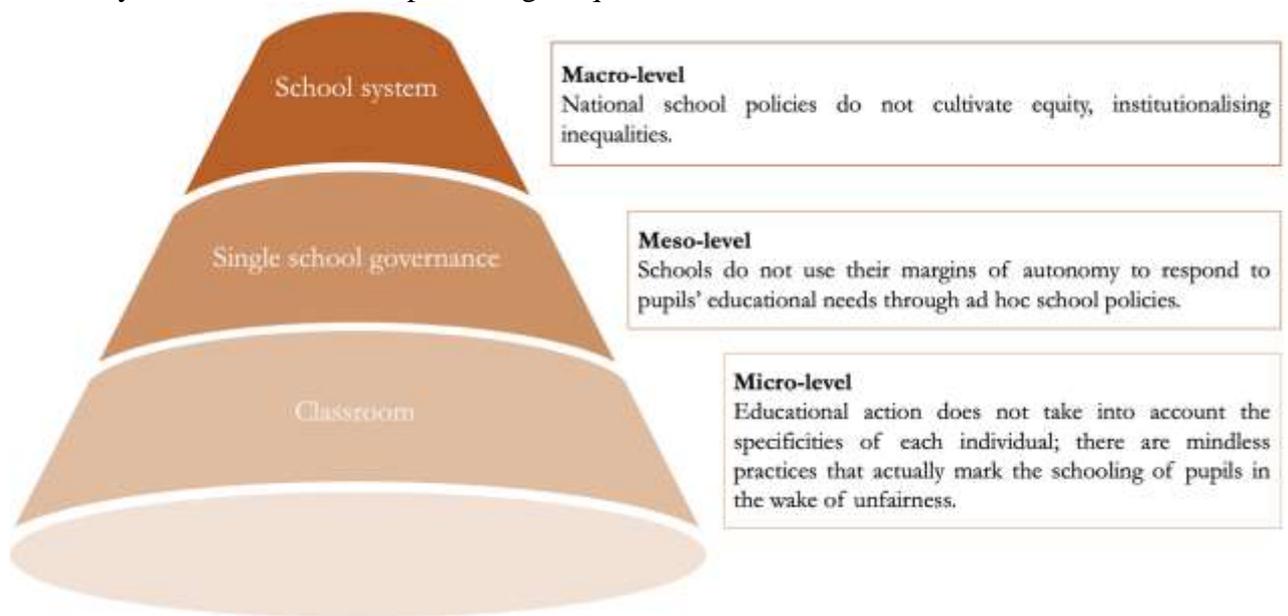


Figure 1. Non-traditional factors of inequality (author's elaboration)

Non-traditional factors of inequality originate due to the organisational culture and functioning of school systems and schools: they produce disparities between pupils that affect both different institutions and classes within the same school, depend on everyday educational practice, individual school governance and national educational policies. Ecological model by Bronfenbrenner (2009) is useful to explain the different level of origin of these dynamics and the responsibility of school systems in producing disparities between pupils (Figure 1).

The dynamics of inequity can originate at different levels (Boeren, 2016; 2019); reading the interrelationships between the various spheres is crucial to understand the effect of non-traditional factors of inequality on pupils' educational pathways (Giddens, 1984). At the micro-level we find inequality dynamics taking shape in the classroom, i.e., in the environment directly frequented by the student. Then, at the meso-level we have inequalities that originate at the institutional level. Finally, at the macro-level we have inequalities created by the socio-political and cultural system in which the student lives, thanks to educational policies that are not really oriented towards equity. In particular, here we focus on inclusion by investigating whether special teacher education and recruitment can be seen as non-traditional factors of inequality that undermine its quality.

The role of special teacher education and recruitment for inclusion quality

Inclusion is not to be understood as a goal achieved once and for all, but as a process that modifies contexts so that they adhere to the specific needs of the people who experience them (Gordon-Gould & Hornby, 2023; Hornby, 2014). In this way, we go beyond the logic of deficiency, which only shows the students' weaknesses, by thinking in terms of enhancing the potential of each one. Thus, the special needs teacher is an agent of change and not the assistant of a single child (EASNIE, 2012); therefore, special teacher education assumes a fundamental role in promoting this vision of school and this professional habitus in future teachers (EASNIE, 2020).

Nonetheless, there is an international shortage of specialised special needs teachers (Payne, 2005; Sutchter et al., 2019; Thornton et al., 2007): this situation produces worsening effects on the quality of inclusive processes in schools, as inadequately trained people are employed to modify school contexts with a view to personalisation and valorisation of everyone's strengths, without focusing on disability or, in general, on what is missing. In addition, recruitment procedures produce frequent turnover (Bulger et al., 2015; Cooper & Alvarado, 2006; Guarino et al., 2006; Zascavage et al., 2008), with a negative impact on educational continuity.

Special teacher education and recruitment can be considered non-traditional factors of inequality. They originate at the macro-level, but have effects on the organisation of individual schools (meso-level) and obviously on the school experience of students (micro-level). Ultimately, they worsen inclusion quality.

The role of special teacher education and recruitment for inclusion quality

Italy is at the forefront in terms of inclusion: since 1977, differential classes for students with disabilities have been abolished (Ianes et al., 2020; Saloviita & Consegna, 2019) and the value of heterogeneity is affirmed as a resource to be designed so that it becomes an educational resource (Arcangeli et al., 2016; Seitz et al., 2023). Therefore, the special needs teacher is assigned not to the individual pupil but to the whole class (Anastasiou et al., 2015; Devecchi et al., 2012) precisely to emphasise that the action is not on the individual but on the context.

From a planning perspective, individualised educational plans (IEPs) are drawn up for pupils with disabilities, which must relate to class planning (Auer et al., 2023; Bellacicco & Cappello, 2023; Demo, 2022). For pupils with other special educational needs, individualised education plans are drawn up to indicate strategies that are successful in ensuring learning, always in connection with the approaches used for the whole class (Demo, 2022; Ianes & Demo, 2021).

With respect to special needs teacher education, one becomes a special needs teacher after attending an annual qualifying course corresponding to 60 ECTs and consisting of theoretical teachings and workshops in the pedagogical, didactic and psychological areas and an internship (Amatori et al., 2020; Calvani et al., 2017; De Angelis, 2021). Recruitment differs for permanent and fixed-term recruitment (Magni, 2019; Magni & Bertagna, 2022). In the first case, an open competition must be passed. In the second case, there is a ranking list of specialised people to draw from; once it is exhausted, unspecialised teachers are hired and then people who apply voluntarily and come from other professional fields. Also to remedy this situation, there is a compulsory 25-hour course for unspecialised special needs teachers and curricular teachers in whose class there is a special needs teacher.

Aims and scope of the study

This exploratory study, conducted between February and April 2023, focuses on the Italian school system and wants to analyse special teacher education and recruitment to see if they are non-traditional factors of inequality. It pursues the following aims:

- to know what the contractual and training profiles of special needs teachers employed in Italian schools are;
- to understand the effects of the presence of unspecialised special needs teachers in terms of their effects on inclusion quality;
- to investigate the perspective of teachers and managers on this issue.

Methodology and methods

Research questions

In the light of the theoretical framework developed and the objective and aims made explicit above, this exploratory study aims to answer two research questions:

1. Can special teacher education and recruitment can be considered non-traditional factors in Italy and why?
2. What are the perspectives of teachers and parents on this issue?

Methods and tools

This study was conducted using a sequential explanatory mixed method. Firstly, we carried out a data analysis using the Ministry of Education and ISTAT databases related to the school year 2021/22: this related to the profile of Italian special needs teachers with reference to the possession of the qualification and the type of contract (fixed-term or permanent).

Secondly, we carried out an asynchronous online focus group (Abrams & Gaiser, 2016) conducted in two Facebook communities: we asked teachers and parents what their perspective was on the phenomenon of unspecialised teachers.

Participants

The qualitative part of the study was carried out in two communities within the social network Facebook. The first community consisted of 71074 users, the second of 82993; people, who were informed of the use of their interventions for research purposes, were guaranteed anonymity.

| Parents of children with disabilities | Teachers | | | |
|--|---|--|---|---|
| P1C1, P2C1, P1C2, P2C2, P5C2, P6C2, P7C2 | <i>Curricular teachers</i> T2C1, T14C1, T9C2 | <i>Specialized special needs teachers</i> T11C1, T15C1, T26C1, T36C1, T2C2, T6C2, T7C2, T8C2, T13C2 | <i>Unspecialized special needs teachers but qualified to teach</i> T6C1, T7C1, T10C1 | <i>Unspecialized and unqualified special needs teachers</i> T1C1, T4C1, T3C1, T13C1, T19C1, T31C1, T1C2, T5C2, T17C2 |

Figure 2. Participants in the asynchronous online focus group

39 people take part in the online focus group in the first community and 31 in the second one. In this analysis, we consider the most significant responses in terms of content and adherence to the subject of the question. With respect to the comments included, Figure 2

illustrates the profiles of the authors with reference to the category they belong to (parents or teachers); these data were deduced from the content of the comments or from short conversations conducted with users through the private messaging service made available by the social network.

The reactions to comments in response to the main post (like, love, hug, ahah, wow, sigh, grrr) considered here are 160 in the first community and 102 in the second. This is a non-probabilistic sample of volunteers: users spontaneously participated in the survey and belong to different age groups and territories. While this may appear to be a limitation since it does not represent a specific reality, the very exploratory nature of the study justifies the choice: the ultimate aim is to understand whether the criticalities highlighted in the literature are perceived as such by the school's protagonists, so approaching the subject by involving people of different ages, territories and experiences may prove useful for this purpose, despite the limitation relating to the small number of responses.

Data analysis

With respect to the qualitative part of the study, the users' responses, in the form of comments to the main post, were subjected to a content-informative analysis (Forbes Hallam, 2022; Stewart & Williams, 2005) that allowed the information obtained to be classified, synthesised and clarified. The web was understood here as a tool for collecting digital data, i.e., produced natively by users using the medium.

The reactions of community users to the comments written in response to the post, expressed through the emoticons provided by Facebook, were then analysed. This is in some way a relational analysis of the communication flow through which the focus group is articulated and is useful to understand how much the thoughts expressed are shared.

Results

Special needs teacher in Italy: data by Ministry of Education and ISTAT

Special teacher education and recruitment are two interconnected issues that have repercussions on students' pathways: not having an adequate number of specialised teachers means having to assign many substitutions to staff without specific qualifications and sometimes not even in possession of the qualification to teach on a common place or subject, with the impossibility of recruiting on a permanent basis despite the availability of teaching positions. These dynamics have distorting effects in terms of equity: not all pupils and classes can count on teachers adequately trained in inclusion and educational continuity becomes a chimera given the constant turnover.

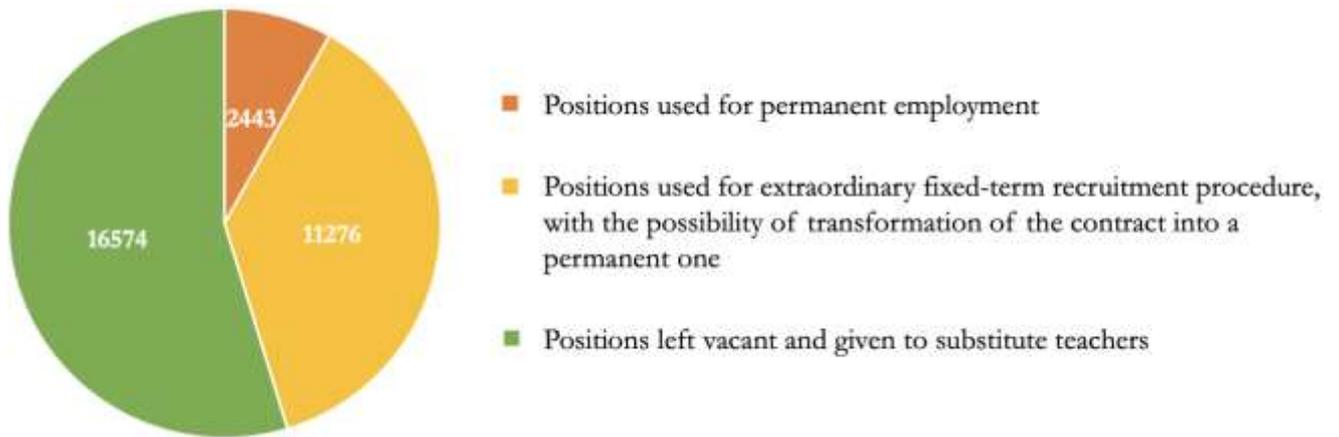


Figure 3. Special needs teachers hired on a fixed-term and permanent basis in the 2021/22 school year

Figure 3 shows how structural the shortage of special needs teachers is: compared to the total number of positions that were available for permanent recruitment, only 8,06% were used for tenure appointments under an ordinary procedure; 37,22% were given tenure under an extraordinary procedure: the specialized teachers included in the ranking list for fixed-term contracts who had obtained an annual employment as special needs teachers could have had a proposal for permanent recruitment to be finalised at the end of the school year after passing a test. 54,72% of the positions allocated to tenure were given as annual contracts (from 1st September to 31st August) to unspecialised staff or to specialised teachers who chose not to avail themselves of this possibility. Therefore, tenured special needs teachers are less than half. It depends both on special teacher education and recruitment and on the professional choices of individual teachers who sometimes opt for a common or subject position with a fixed-term or permanent contract, although they can be appointed to a tenure-track position as special needs teachers.

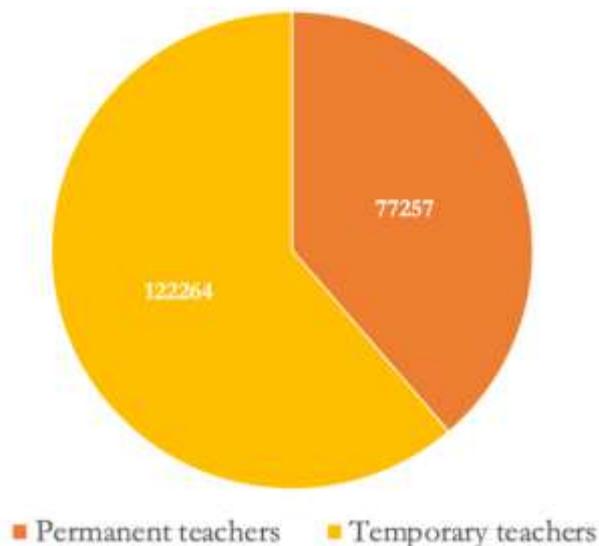


Figure 4. Teachers on support posts in the 2021/2022 school year between tenured teachers and teachers hired on fixed-term contracts

The structural shortage of special needs teachers is even more evident from Figure 4: out of the total need, 38,73% are hired on permanent contracts, 61,27% on fixed-term contracts. Of the non-tenured teachers, 84,84% are employed until 30th June of the school year considered, 15,16% until 31st August; of the positions on 31st August that remained vacant after the fixed-term recruitment procedures, 42,53% are for the recruitment of specialised special needs teacher, and 57,47% are occupied almost entirely by teachers without qualification.

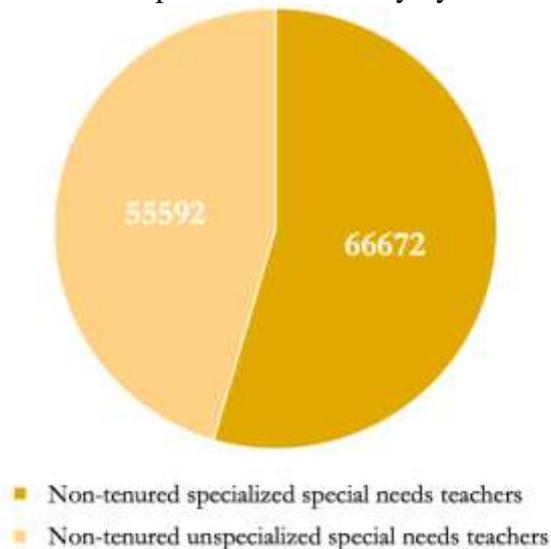


Figure 5. Possession of specialisation by non-tenured special needs teachers

In essence, most classes with a pupil with disabilities have a non-tenured special needs teacher; of these, almost 1 in 2 (45.46%) do not have the specialisation (Figure 5). Moreover, of the total number of tenured and non-tenured support teachers, 1 in 3 does not have the specialisation (Figure 6). The situation differs in different parts of Italy: while in the North and the Centre the employment of unspecialised personnel is equivalent to almost half of the total number of special needs teachers employed on both fixed-term and permanent basis, in the South it corresponds to only one fifth.

The profiles of unspecialised special needs teachers are different: one part is qualified to teach on curricular positions, another part consists of people who apply spontaneously. In the latter case, the profiles are the most diverse, from students not yet included in the official lists to people without specific (special) teacher education and belonging to other professional fields; however, there are no official data on the number of positions filled by spontaneous applicants. The data proposed with respect to fixed-term recruitments only consider contracts on 30th June and 31st August. Therefore, the presence of unspecialised staff is greater if we consider all the recruitments related to shorter substitutions of absent staff: a massive recourse to spontaneous applications is plausible. In the last three school years, the situation seems to have improved, with a slight decrease of unspecialised special needs teachers.

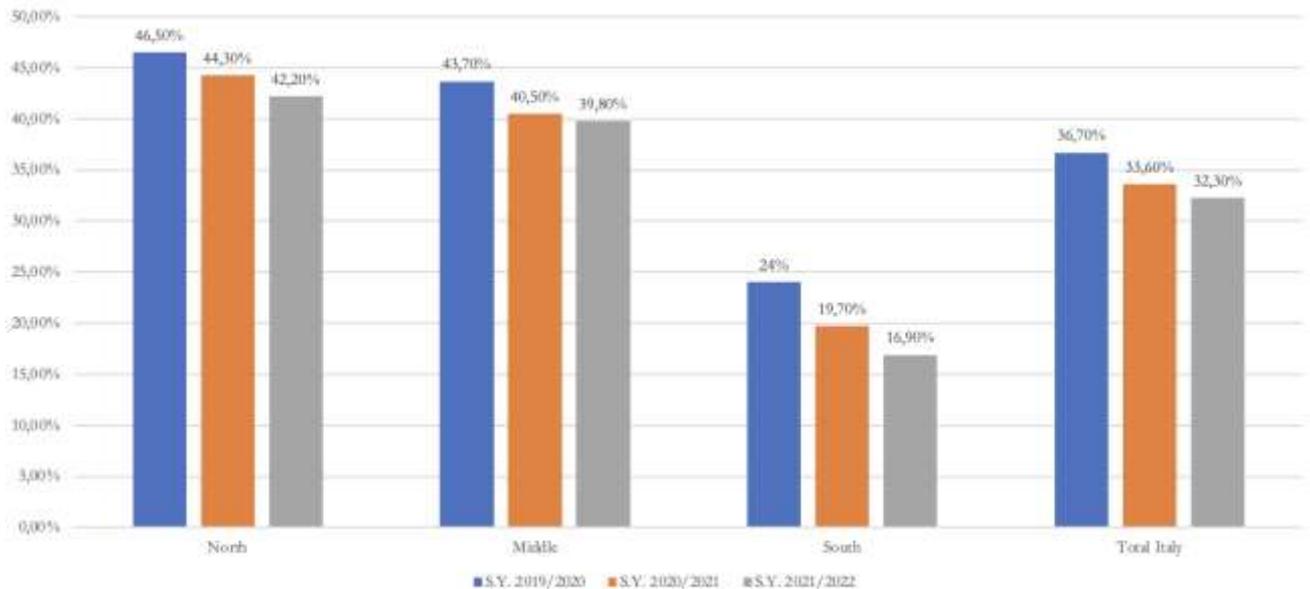


Figure 6. Possession of specialisation by non-tenured special needs teachers

Thus, judging by the numbers, special teacher education and recruitment can be considered non-traditional factors of inequality.

Asynchronous online focus group

The answers of the users of the two communities touch upon different aspects of the professionalism of special needs teachers. Structural criticalities emerge on a macro-level, due to national education policies; there are also difficulties due to the school culture on the organisational level (meso-level) and classroom life (micro-level).

A significant number of answers focuses on the professional profile of special needs teachers: a sort of tension emerges between the idea that they can be agents of contextual change and the still widespread belief that they must be devoted to care activities. It is precisely for this reason that in many answers the value of special teacher education is somewhat diminished in favour of a certain vocation that substitute a professional habitus in which psycho-pedagogic-didactic skills find their place.

Empathy and disposition are natural gifts that are certainly not acquired by specialization; studies and teacher education are important... But sensitivity, understanding and listening are more so. Experience counts, not so much what you learn in books. Unspecialized teachers are welcome if they feel they have the calling (T1C1).

15 likes, 4 loves

Heart is essential in our work (T3C1).

14 likes, 1 love

I am an unqualified teacher. I could choose a curricular position, but I feel more inclined to be a special need teacher. Specialization is an extra title, experience in the field counts, and if I don't know something I ask for advice either from specialists or those who have more experience (T10C1).

4 likes

Many children need emotional and relational support. We don't just look at teacher education (T19C1)!



5 grrr

It is not teacher education course that gives birth to vocation (T1C2).

7 like, 4 love, 3 hug

There is no teacher education that holds! It all depends on relationships with the boy, with colleagues, and with management (T5C2).

1 like

You don't see a good teacher by certifications, including specialization. Teacher education is useful, but almost everything is done by the person and their being suited for the job (T17C2).

5 likes, 1 love

In both communities, a part of the teachers maintained that the professional profile of the special needs teacher is a combination of personal characteristics and vocational aspects and that specialisation is an accessory requirement. Except in one case, where the emoticons expressed opposition, in the others there was agreement with the opinions expressed. Actually, it should be remembered that education, even in adulthood, aims at the cultural and personal growth of the individual: even aspects mistakenly considered natural or gifted only by some, such as empathy, openness towards others, and the ability to establish a healthy and fruitful educational relationship, can be built up and improved thanks to (special) teacher education. These are fundamental competences that make the special needs teacher an agent of change who manage personal internal factors to act on complex and sometimes conflicting relational dynamics: it is necessary to get out of the "logic of the good heart" and "of vocation" so as not to diminish the value of these essential dimensions of the habitus of the special needs teacher and of all teachers.

Furthermore, specialising in inclusion means acquiring psycho-pedagogical and teaching skills that cannot be improvised. This issue is strongly emphasised by other teachers and parents, who stress the crucial nature of the professional dimension of teachers' work and the importance of not giving in to charitable or compensatory visions.

If there is a shortage of nurses and I gave an exam in school hygiene can I send a curriculum to the hospital below? Today anyone can teach: you disqualify the profession and harm the kids (P1C1).

6 likes, 2 love

Specialization makes all the difference! The specialized special needs teacher is not only a plus for the pupil with disabilities but for the whole class: he/she works on the classroom climate, the relationship, the environment, and everyone benefits. Without the proper special teacher education, it is impossible to surely be aware of all these variables; we just assist (T36C1).

9 likes

Specialised special needs teachers were able to experience themselves in a serious internship by translating skills learned from books into practice and put to the test through simulations in labs. It doesn't all end with the special teacher education, but it does give you a mindset that you are unlikely to have without that kind of education (T2C2).

4 likes, 3 love, 1 hug

Good will is not enough, you need competence and professionalism. Teacher education is indispensable (T6C2)!

2 likes, 2 loves

You cannot do without education! Instead, we have teachers catapulted overnight into support. Even with the best good will, they won't know where to put their hands. We are talking about doing special education, not baby-sitting (T7C2).

2 likes



Specialization is a necessary and priority qualification. When teachers are called from curriculum or sometimes even cross-graded often we see total inexperience and lack of educational tools to cope with complex situations (T8C2).

8 likes

As a parent, I note that the right to work of a neurotypical adult is more relevant than the right to study and inclusion of a child with disabilities (P1C2).

8 likes, 1 sigh

I don't understand the tolerance for incompetence. Is asking for someone who is capable in their own work too much to ask? Being disabled puts you in a position to be content with what passes for you and be thankful as well. Would the same people who are condescending to teachers without the slightest education be condescending as well if they were touched by a doctor without any surgical specialty when they are on the table, ready for surgery? How would they react to being told by the Ministry of Health that unfortunately there are not enough surgeons (P2C2)?

9 likes

If it is not accompanied by training, goodwill can be disastrous (P5C2)!

1 like

First-time people with no education have been employing as special needs teacher for years: a disaster on the skin of the most fragile (P9C2).

5 likes, 2 loves

There is disinterest on the issue, it seems that specialization is just a title... Actually, as a parent, I have seen the difference between educated staff and improvised staff (P6C2)!

9 likes

I have worked as a special needs teacher both without specialization and with: thanks to special teacher education I have become more aware and intentional in my actions, because I have increased not only knowledge, but also skills and competencies. [...] Beyond intentions (even the best ones) a good special needs teacher needs specialization (P13C2).

4 likes

In reply to those who claim that training does not guarantee high quality standards in terms of inclusion, it is reiterated that specialisation is not a fad but is essential to build a professional habitus that guarantees a quality educational experience for everyone. It is then emphasised that the training pathway favours work not only in the psycho-pedagogical and didactic sphere, but also on the level of emotional, social and relational skills, overcoming the "logic of good heart" and "of vocation" In addition to the agreement expressed through emoticons, several distorting effects in terms of equity due to the recruitment of unqualified teaching staff are given as examples: these are widespread dynamics in many schools that damage pupils' educational experience. In fact, a compensatory view of work for inclusion and the delegation mechanism must be overcome.

Empathy, heart are not enough: I have seen serious mistakes made in absolute good faith from trivial reinforcement of dysfunctional behavior to something else (T14C1).

5 likes, 1 hug

The first year of primary school they called as special needs teacher a girl who had yet to graduate and not even to become a teacher. She did more harm than good: my son was bored and began to have dysfunctional behavior (P2C1).

4 sigh

I have no special teacher education and regretted being employed as special needs teacher: they assigned me to a boy I can't handle. [...] For some students there is a need for teachers trained in difficult behaviors to deal with. For others, regular teachers are fine (P31C1).

3 grrr



Last year my son's special needs teacher (hired after a spontaneous application) was a disaster from start to finish. My son practically lost a year, now we are catching up (P7C2).

3 likes, 3 hug

The situation appears in all its criticality: users express support for the opinions expressed and sometimes mark their sentiment in a direction of anger at the unfairness of students' daily experience. However, for schools it is impossible to do otherwise: there are few specialised special needs teachers and a large number of teaching positions have to be filled. In recent years, this phenomenon has led many people to enter the teaching profession either thanks to the permanent qualifying value of a qualification obtained many years earlier, without having updated their education in the meantime, or by applying through spontaneous applications. Now, there does not seem to be a solution: the places advertised for specialisation courses are far fewer than the need for teachers, also because it is essential that the number of eligible candidates is calibrated on the actual sustainability of the universities, so as not to reduce the quality of the education proposal.

Faced with the shortage of specialized teachers, welcome the presence of unspecialized ones. I have had both negative and positive experiences with them... I always recommend specializing: unfortunately, people often give up because they think that once you reach a certain age you can no longer study or because of the cost and commitment the course requires (T2C1).

20 likes

Specialists are also few because of the way special teacher education is organized (T4C1).

8 likes

Without unspecialized and teachers hired by resume, pupils would be without teachers. [...] So, now, non-specialized teachers guarantee, some better and some worse, an essential service (T6C1).

4 likes

I am specializing. [...] Empathy is important, but heart is not enough... It takes expertise! We can make a difference for these kids, but we need to be trained (T7C1).

14 likes, 1 love

At the root is a dysfunctional system. Anyone who wants to go into the profession of do-mentor should be fully educated (T11C1).

13 likes

The problem is the system. How can you blame a temp who tries to bring home bread because they can't find anything better? Dignity to the role of the teacher must come first and foremost from the institution, with adequate contracts and reducing precariousness (T13C1).

3 likes

At my school, without unspecialised teachers, I would be the only special needs teacher. The error is in the system (T5C1).

15 likes

When the dry weather is blowing, even the storm is good. Special teacher education is selective and almost exclusive... But it is essential! This job is not assistance. Recruitment is also the problem: offering a precarious job is bound to go downhill. Teaching is often a job for those who cannot find better (T26C1).

7 love, 2 like

The extensive use of unspecialised teachers is considered a necessary evil due to the structural deficiencies of our school system. Teachers with the specific specialisation are few and even fewer are hired on a permanent basis; among them, many make a tenure transition

every year to curricular positions. The reactions to the comments express agreement with the thoughts expressed. Schools can only limit the damage by calling spontaneous applicants who have qualifications similar to those required.

In general, compared to those who took part in the exploratory survey, parents of pupils with disabilities and specialised special needs teachers recognise the value of the special teacher education to acquire psycho-pedagogical-didactic skills and work on emotional, social and relational aspects, not giving in to the common sense according to which the “good heart” and the “vocation” are sufficient elements to build an effective inclusion and stressing the need to go beyond delegation mechanisms and compensatory visions. The unspecialised special needs teachers on the one hand emphasise the personal characteristics relating to the emotional-relational sphere as the main element of the professional habitus, on the other hand they highlight the difficulties in accessing specialisation courses due to the few places advertised, their cost and the commitment required. The curricular teachers express opinions sometimes adhering to the specialised teachers and parents, sometimes to the unspecialised.

Discussion

This study confirms the critical issues that have emerged in the literature. Special teacher education and recruitment represent a non-traditional factor of inequality in Italy (Ferrero, 2023c). They originate at a macro-level. At the meso-level, they put schools in a difficult position to manage professional resources and guarantee inclusion quality. They also have effects at the micro-level, producing inequalities in students’ school experience.

The shortage of specialised teachers leads to recruitment problems, with few permanent hires (Boe & Cook, 2006; Brownell & Sindelar, 2016). Many permanent teachers recruited as specialised teachers switch to curricular teaching after the five-year constraint in Italy, further reducing the pool of special needs teachers. This situation leads to compensatory dynamics and delegation mechanisms, disregarding the inclusion project (Cooc, 2019; De Angelis, 2021).

As we have seen, this issue does not only concern Italy but many school systems internationally. Therefore, it is an international challenge that requires serious reflection starting from the convergences emerging between school systems (Boe, 2014): we need to rethink recruitment policies to make them more effective and responsive to the needs of everyday school life and make special teacher education more accessible. Moreover, it would be necessary to think about special teacher education not only for special needs teachers, but for all teachers: in this way, it would be possible to have professionals with both curricular and special needs teachers’ tasks, avoiding delegation mechanisms and allowing everyone to acquire those competences to act on contexts and not on individuals, creating capacitating experiences and settings.

Definitively, the Italian case can be useful for reflections even beyond the boundaries of the school system under investigation. In fact, it emerges that the shortage of specialised support teachers produces distorting effects in terms of equity by worsening students' school experience. Having inadequately educated teachers does not allow for the paradigm shift that inclusion would require: it acts on the individual and not on the contexts, focusing more on capabilities that there are and should be developed.

Furthermore, the asynchronous online focus group shows us the phenomenon of “epistemic bubbles” (Ferrari & Moruzzi, 2020; Nguyen, 2020), i.e., the tendency to confirm positions in which one recognises oneself also thanks to the algorithms that regulate social

networks and propose content in line with what the user has shown interest in or assent to. With respect to the issue under investigation, it is interesting to note how the tendency to devalue special teacher education emerges: in the face of a minority who recognise its value and importance, many give in to a “good-hearted logic” that risks leading to welfare dynamics that have nothing to do with the vision of inclusion as a process.

Conclusion

Within the reflection on the role of schools for social justice and equity, it is imperative to focus on inclusion. As they have been conceived up to now, special teacher education and recruitment are non-traditional factors of inequality (in Italy but not only), since they are dynamics originating from the organisation of our school system that create inequalities in pupils’ educational paths.

The numbers of the phenomenon and the perspectives of the school’s protagonists leave no escape: action must be taken so that what should be the exception (having some unspecialised teachers as special needs teacher) stops being the rule. It is a work that involves political actors, universities and school systems: it is crucial to promote the idea of the special needs teacher as an agent of change who acts on the contexts to improve the educational experience of all pupils.

References

- Abrams, K.M., & Gaiser, T.J. (2016). Online Focus Groups. In N.G. Fielding, R.M. Lee & G. Blank (Eds.), *The Sage Handbook of Online Research Methods* (pp. 435-450). Thousand Oaks: Sage.
- Adams, M. (2007). Pedagogical frameworks for social justice education. In M. Adams, L.A. Bell (Eds.), *Teaching for diversity and social justice* (pp. 39-58). New York: Routledge.
- Ainscow, M. (2020b). Inclusion and equity in education: Making sense of global challenges. *Prospects*, 49, 123-134.
- Ainscow, M. (2020b). Promoting inclusion and equity in education: lessons from international experiences. *Nordic Journal of Studies in Educational Policy*, 6(1), 7-16.
- Amatori, G., Bianco, N.D., Capellini, S.A., & Giaconi, C. (2021). Formazione degli insegnanti specializzati e progettazione educativa individualizzata: una ricerca sulle percezioni. *Form@ re*, 21(1), 24-37.
- Anastasiou, D., Kauffman, J.M., & Di Nuovo, S. (2015). Inclusive education in Italy: description and reflections on full inclusion. *European Journal of Special Needs Education*, 30(4), 429-443.
- Arcangeli, L., Bartolucci, M., & Sannipoli, M. (2016). La percezione della qualità dei processi inclusivi: il punto di vista della scuola. *L'integrazione scolastica e sociale*, 15(2), 125-140.
- Auer, P., Bellacicco, R., & Ianes, D. (2023). Individual Education Plans as Instruments and Practices for Inclusion: Problems and Dilemmas. In S. Seitz, P. Auer & R. Bellacicco (Eds.), *International Perspectives on Inclusive Education: In the Light of Educational Justice* (233-252). Leverkusen: Verlag Barbara Budrich.

- Bell, L.A. (2007). Theoretical foundations for social justice education. In M. Adams, L.A. Bell & P. Griffin (eds.), *Teaching for diversity and social justice* (pp. 1-14). New York: Routledge.
- Bellacicco, R., & Cappello, S. (2023). Evidence on Analysis and Reflections of Available Statistical Data in Italy. In S. Seitz, P. Auer & R. Bellacicco (Eds.), *International Perspectives on Inclusive Education: In the Light of Educational Justice* (141-162). Leverkusen: Verlag Barbara Budrich.
- Boe, E.E. (2014). Teacher demand, supply, and shortage in special education. *Handbook of research on special education teacher preparation*, 67.
- Boe, E.E., & Cook, L.H. (2006). The chronic and increasing shortage of fully certified teachers in special and general education. *Exceptional Children*, 72(4), 443-460.
- Boeren, E. (2016). *Lifelong learning participation in a changing policy context: An interdisciplinary theory*. London: Palgrave-Macmillan.
- Boeren, E. (2019). Understanding Sustainable Development Goal (SDG) 4 on “quality education” from micro, meso and macro perspectives. *International review of education*, 65, 277-294.
- Bourdieu, P. (1966). L'école conservatrice. L'inégalité sociale devant l'école et devant la culture. *Revue française de sociologie*, 7(3), 325-347.
- Bourdieu, P., & Passeron, J.C. (1964). *Les Héritiers. Les étudiants et la culture*. Parigi: Les éditions de Minuit.
- Brofenbrenner, U. (2009). *The Ecology of Human Development. Experiments by nature and design*. Harvard: Harvard University Press.
- Brownell, M.T., & Sindelar, P. T. (2016). Preparing and retaining effective special education teachers: Systemic solutions for addressing teacher shortages. *Council for Exceptional Children Policy Insider*.
- Bulger, S., Jones, E. M., Taliaferro, A.R., & Wayda, V. (2015). If you build it, they will come (or not): Going the distance in teacher candidate recruitment. *Quest*, 67(1), 73-92.
- Calvani, A., Menichetti, L., Pellegrini, M., & Zappaterra, T. (2017). La formazione per il sostegno. Valutare l'innovazione didattica in un'ottica di qualità. *Form@ re*, 17(1), 18-48.
- Cooc, N. (2019). Teaching students with special needs: International trends in school capacity and the need for teacher professional development. *Teaching and Teacher Education*, 83, 27-41.
- Cooper, J.M., & Alvarado, A. (2006). *Preparation, recruitment, and retention of teachers*. Brussels: International Institute for Educational Planning.
- De Angelis, M. (2021). Valutare le competenze del docente inclusivo: revisione sistematica nei corsi di specializzazione sul sostegno in Italia. *Form@ re*, 21(1), 253-269.
- Demo, H. (2022). Per una progettazione didattica inclusiva: proposta di un canovaccio per progettare unità di apprendimento inclusive. *Q-Times webmagazine*, 14(1), 147-164.
- Devecchi, C., Dettori, F., Doveston, M., Sedgwick, P., & Jament, J. (2012). Inclusive classrooms in Italy and England: The role of support teachers and teaching assistants. *European journal of special needs education*, 27(2), 171-184.
- EASNIE (2012). *Teacher Education for Inclusion. Profile of Inclusive Teachers*. Odense: EASNIE.
- EASNIE (2020). *Teacher Education for Inclusion. Key Policy Messages*. Odense: EASNIE.

- Ferrari, F., & Moruzzi, S. (2020). Logical pluralism, indeterminacy and the normativity of logic. *Inquiry*, 63(3-4), 323-346.
- Ferrer-Esteban, G. (2011). Beyond the Traditional Territorial Divide in the Italian Education System. Aspects of System Management Factors on Performance in Lower Secondary Education. *FGA Working Paper*, 42(12). Torino: Fondazione Giovanni Agnelli.
- Ferrero, V. (2023). Equity and Excellence in Education: SDG 4 of the 2030 Agenda in the Italian Context—Public Education Policies and Their Impact. In M. Hamdan M. Anshari, E.Z.H. Ali & N. Ahmad (Eds.), *Public Policy's Role in Achieving Sustainable Development Goals* (pp. 206-235). Hershey: IGI Global.
- Ferrero, V. (2023a). School between Equity and Inequality: A Pedagogical Reflection on Italian Context. In H. Van Seliskar (Ed.), *Restorative Justice and Practices in the 21st Century* (pp. 175-204). Hershey: IGI Global.
- Ferrero, V. (2023b). Inclusione: una questione di formazione? Formazione degli insegnanti di sostegno e modalità di reclutamento come fattori non tradizionali di disuguaglianza. *Annali online della Didattica e della Formazione Docente*, 15(25), 252-272.
- Ferrero, V. (2023c). School between Equity and Inequality: A Pedagogical Reflection on Italian Context. In H. Van Seliskar (Ed.), *Restorative Justice and Practices in the 21st Century* (pp. 175-204). Hershey: IGI Global.
- Florio-Ruane, S. (1989). Social organization of classes and schools. M. Reynolds (Ed.), *Knowledge Base for the Beginning Teacher* (pp. 89-92). London: Pergamon.
- Forbes Hallam, K. (2022). Moving on from trial and errors: a discussion on the use of a forum as a online focus group in qualitative research. *International Journal of Social Research Methodology*, 25(4), 429-439.
- Gerwitz, S. (2006). Towards a Contextualized Analysis of Social Justice in Education. *Education Philosophy and Theory*, 38(1), 69-81.
- Giddens, A. (1984). *The constitution of society: Outline of the theory of structuration*. Cambridge: Blackwell/Polity Press.
- Gobbo, F. (2011). Ethnographic research in multicultural educational contexts as a contribution to intercultural dialogue. *Policy Futures in Education*, 9(1), 35-42.
- Goldring, L. (2002). The power of school culture. *Leadership*, 32(2), 32-35.
- Gordon-Gould, P., & Hornby, G. (2023). *Inclusive education at the crossroads: exploring effective special needs provision in global contexts*. Taylor & Francis.
- Granata, A., & Ferrero, V. (2022). Nelle tasche della scuola. Coinvolgimento finanziario-organizzativo delle famiglie come fattore non tradizionale di disuguaglianza scolastica. *Scuola Democratica*, 10(2), 363-384.
- Griffiths, M. (2003). *Action for social justice in education*. Buckingham: Open University Press.
- Guarino, C.M., Santibanez, L., & Daley, G.A. (2006). Teacher recruitment and retention: A review of the recent empirical literature. *Review of educational research*, 76(2), 173-208.
- Hackman, H.W. (2005). Five Essential Components for Social Justice Education. *Equity & Excellence in Education*, 38(2), 103-109.
- Hornby, G. (Ed.) (2014). *Inclusive special education*. New York: Springer.

- Ianes, D., & Demo, H. (2021). Per un nuovo PEI inclusivo. *Integrazione Scolastica e Sociale*, 20(2), 34-49.
- Ianes, D., Demo, H., & Dell'Anna, S. (2020). Inclusive education in Italy: Historical steps, positive developments, and challenges. *Prospects*, 49(3-4), 249-263.
- Jurado de Los Santos, P., Moreno-Guerrero, A.J., Marín-Marín, J.A., & Soler Costa, R. (2020). The term equity in education: A literature review with scientific mapping in Web of Science. *International Journal of Environmental Research and Public Health*, 17(10), 3526.
- Magni, F. (2019). *Formazione iniziale e reclutamento degli insegnanti in Italia. Percorso storico e prospettive pedagogiche*. Roma: Studium.
- Magni, F., & Bertagna, G. (Eds.) (2022). *Lauree e abilitazione all'insegnamento. Analisi del presente, tracce di futuro*. Roma: Studium.
- Mayabi, C. (2015). *The Role of Education in Fighting Inequality*. Berlin: GRIN.
- Mincu, M. E. (2015). The Italian middle school in a deregulation era: modernity through path-dependency and global models. *Comparative Education*, 51(3), 446-462.
- Nguyen, C.T. (2020). Echo chambers and epistemic bubbles. *Episteme*, 17(2), 141-161.
- OECD (2012). *Equity and Quality in Education. Supporting Disadvantaged Students and Schools*. Paris: OECD Publishing.
- OECD (2023). *Education at a Glance 2023: OECD Indicators*. Paris: OECD Publishing.
- Payne, R. (2005). Special Education Teacher Shortages: Barriers or Lack of Preparation?. *International Journal of Special Education*, 20(1), 88-91.
- Saloviita, T., & Consegna, S. (2019). Teacher attitudes in Italy after 40 years of inclusion. *British Journal of Special Education*, 46(4), 465-479.
- Scuola di Barbiana (1967). *Lettera a una Professoressa*. Firenze: LEF.
- Seitz, S., Auer, P., & Bellacicco, R. (Eds.) (2023). *International Perspectives on Inclusive Education: In the Light of Educational Justice*. Leverkusen: Verlag Barbara Budrich.
- Stewart, K., & Williams, M. (2005). Researching online populations: the use of online focus groups for social research. *Qualitative Research*, 5(4), 395-416.
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education policy analysis archives*, 27(35).
- Thompson, R. (2019). *Education, Inequality and Social Class*. New York: Routledge.
- Thornton, B., Peltier, G., & Medina, R. (2007). Reducing the special education teacher shortage. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 80(5), 233-238.
- UN (2015). *Transforming Our World: The 2030 Agenda for Sustainable Development*. New York: UN.
- UNICEF (2013). *Leave No Child Behind. Building Equity for Children*. Skopje: UNICEF.
- UNICEF (2018). *An Unfair Start. Inequality in Children's Education in Rich Countries*. Florence: UNICEF.
- UNICEF (2021). *Every Child Learns*. New York: UNICEF.
- Zascavage, V., Schroeder-Steward, J., Armstrong, P., Marrs-Butler, K., Winterman, K., & Zascavage, M.L. (2008). Considerations for the strategic recruitment of special educators. *Teacher Education Quarterly*, 35(4), 207-221.

3. LEGAL ISSUES OF ROMA INCLUSION IN EDUCATION IN WESTERN BALKAN COUNTRIES

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Abstract

Teacher education is a critical component of education systems in Western Balkan countries as it helps to mitigate social and ethnic differences. The education systems of these countries have similar structures and are undergoing comparable reforms, all while struggling to ensure equal opportunities for diverse groups of learners. The Roma community faces several legal issues concerning education in the Western Balkans, such as discrimination, lack of access to quality education, language barriers, and poverty. To address these legal issues, it is essential to enforce laws that protect the rights of Roma children in education, provide resources to ensure they have access to quality education, and offer sufficient training to teachers to provide inclusive education without discrimination. While inclusive education is predominantly supported by international legal frameworks and European policies, achieving it requires a holistic approach that goes beyond legal norms and also encompasses teacher training. This paper presents an overview of the legal concerns about teacher education and how it can help alleviate discrimination against Roma children. The research identifies the problems encountered in the framework of discrimination faced by Roma children in education and emphasizes the need for a better legislative and political framework, towards alignment with European standards. The research is focused on the qualitative aspect by connecting the findings of various international organizations in education with the legislative aspects and policies of the Western Balkan countries particularly concerning inclusion and teacher education. The paper is devoted to the analysis of teacher education for Roma children in Western Balkan countries, highlighting the common challenges and problems faced by these nations, in their efforts to achieve more efficient implementation of inclusive education at the national level.

Keywords: inclusion education, Roma children, Western Balkan countries, discrimination, the right to education

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Introduction

Roma communities have been estimated among those most disadvantaged and most subject to discrimination in the contemporary world (Office of the High Commissioner for Human Rights, 2000; European Commission, 2014). With an estimated population of 10-12 million in Europe according to the European Commission, Roma constitute one of the largest minorities (European Commission, 2012; Harris et al., 2017). In the Western Balkans, there is a count of 1 million Roma people, representing 5.5% of the population of the region (European Commission, 2017). Despite the place they occupy, they are very often the victims of racism, discrimination, and social exclusion and live in deep poverty, lacking access to healthcare and decent housing (Amnesty International, 2011; Bartlett et al., 2011). Moreover, Roma children are perceived as a particularly disadvantaged group (Farkas, 2007; Avery & Hoxhallari, 2017) and they frequently suffer from poverty and social exclusion which is both a cause and effect of their low level of participation and success in education (European Union Agency for Fundamental Rights [EU-FRA], 2014). This conclusion is supported by numerous reports by the United Nations and Council of Europe bodies, and case laws before the European Court of Human Rights (D.H and others v. Czech Republic (dec.) no. 57325/00, 13.11.2007; Sampanis and Others v. Greece (dec.) no. 32526/05, 05.06.2008; Oršuš and Others v. Croatia (dec.) no. 15766/03, 17.07.2008; X and Others v Albania (dec.) no. 73548/17 and 45521/19, 31.05.2022; Elmazova and Others v North Macedonia (dec.) no. 11811/20 and 13550/20, 13.12.2022). The European Court of Human Rights [ECtHR]’ jurisprudence has highlighted several cases of indirect discrimination in education suffered by Roma children.

The largest Roma colonies are predominantly situated in post-communist nations within Central and Eastern Europe (CEE). In the time of communism, educational and employment rates in CEE countries saw a general increase due to compulsory education and employment regulations. With the collapse of the communist system, the economic situation of Roma deteriorated and anti-Roma feelings resurfaced (van den Bogaert, 2011). However, despite attempts made at the national, European, and global stages to enhance the safeguarding of their basic rights and promote their societal inclusion, numerous Roma individuals continue to encounter extreme impoverishment, deep-seated social isolation, hindrances in exercising their fundamental rights, and bias. These issues impact their capacity to attain quality education, consequently undercutting their possibilities for employment and income, living conditions, and overall well-being (Ohidy et al., 2022).

The data indicates a significant disparity in the education of Roma children across both Western and Eastern Europe. Less than half of Roma children successfully finished their elementary education. Moreover, in certain Central and Eastern European countries, a substantial proportion ranging from 50% to 80% of enrolled Roma children are assigned to special schools that were originally set up during the 1950s and 1960s for children facing learning disabilities (Council of Europe, 2005).

It is necessary to emphasize that in the international framework, the right to education is protected by a series of instruments at the global and regional level, starting with the Universal Declaration of Human Rights. Article 26 of the Universal Declaration of Human Rights establishes that “everyone has the right to education” by granting it to every human being without discrimination (United Nations, 1948). Yet, discrimination against Romani children in education is widespread and is manifested in various ways. The European Commission identifies three types of Roma segregation. Intra-school segregation involves the creation of classes exclusively for Roma students within a school. Intra-class segregation further divides

children within the same class into separate study groups with distinct curriculum expectations. Inter-school segregation pertains to the separation of different ethnic groups into different schools. Additionally, non-disabled Romani children might also be placed in specialized schools for those with intellectual disabilities, contributing to further segregation (European Commission, 2014).

The rights of individuals from minority groups, notably the Roma community, are of significant importance across Western Balkan countries. Despite progress in the realm of human rights, these nations still face challenges in effectively promoting the use of minority languages, ensuring accessible educational opportunities, and fostering the inclusion of the Roma community within society (European Commission, 2018). To comprehend the evolution of the educational rights of the Roma minority in Western Balkan nations, it is essential to examine the international and regional legal structures in comparison to local educational legislation, particularly concerning the Roma community. This analysis will provide valuable insights into the status of the right to education for Roma minorities.

International framework for protecting Roma children's right to education

Given the severe marginalization experienced by Roma minorities, the acknowledgment and safeguarding of human rights hold exceptional significance for them. Furthermore, the right to education carries special importance for Roma children, acting as a fundamental cornerstone in the promotion of equality and inclusiveness (Harris et al., 2017). The international dimension of the right to education for Roma children is addressed through a range of global instruments including the International Covenant on Economic, Social and Cultural Rights [ICESCR] (United Nations [UN], 1966), the Convention against Discrimination in Education (UNESCO, 1960), the Convention on the Elimination of All Forms of Racial Discrimination (UN, 1965), the Convention on the Elimination of All Forms of Discrimination against Women (UN, 1979), the Convention on the Rights of the Child (UN, 1989).

Article 13 of ICESCR highlights the role of the right to education in the full development of the human personality, providing each person with a sense of dignity, and serving as an indispensable means of realizing other human rights. The state parties are engaged in recognizing the right to education for everyone, without discrimination, enabling all persons to participate effectively in a free society (UN, 1999). The indisputable significance of the right to education has been further underscored by the Convention against Discrimination in Education which highlights the discrimination and implications of discrimination in education. Discrimination is considered any distinction, exclusion, limitation, or preference which, being based on race, color, sex, language, religion, political or other opinion, national or social origin, economic condition, or birth, has the purpose or effect of nullifying or impairing equality of treatment in education (UNESCO, 1960). Furthermore, the convention outlines specific actions that states are required to implement in order to combat education-related discrimination. These measures encompass the removal of laws and administrative directives that foster educational discrimination, the establishment of legal frameworks preventing discrimination during pupils' admissions, the prohibition of unequal treatment among pupils except based on merit or necessity, the disallowance of assistance solely for pupils belonging to specific groups, and ensuring that foreign residents have equal educational access as nationals.

The International Convention on the Elimination of All Forms of Discrimination recognizes the necessity for targeted measures to ensure equality. Article 5 within this convention explicitly forbids educational segregation, while Article 3 places a positive responsibility on states to put an end to such practices. The United Nations Committee on the Elimination of Racial Discrimination [CERD] has issued recommendations addressing discrimination against the Roma. These recommendations call for states to prevent segregation, enhance educational quality, and improve academic achievements within schools. Additionally, urgent actions are encouraged to train educators, assistants, and teachers from the Roma community, and to integrate Roma culture and history into teaching materials (CERD 2000, O’Nions, 2010).

The right to education for children belonging to the Roma minority is comprehensively outlined within the provisions of the Convention on the Rights of the Child. By ratifying the convention, the participating states have committed to ensuring that a child's education is aimed at nurturing his personality, talents, and both mental and physical capacities to their fullest potential. The child's educational journey should revolve around respecting the child's parents, preserving their cultural identity, language, and values, as well as appreciating the national values of the country they reside in, their country of origin, and even civilizations different from their own. The education provided should equip the child for responsible living within a free society, with an emphasis on fostering understanding, peace, tolerance, gender equality, and friendship among all ethnic, national, and religious groups, as well as individuals of indigenous heritage (Council of Europe, 2005; Lundy, 2012).

The European Context for the Protection of the Right to Education of the Roma Minority

In addition to the protection provided to the right to education internationally, this right is also recognized and protected by a range of regional legal instruments. The most well-known instruments of the Council of Europe that have dealt with the right to education are the European Convention for the Protection of Human Rights and Fundamental Freedoms (Council of Europe, 1950) particularly Protocol 1, the European Social Charter, both in its original version (Council of Europe, 1961) as well as in the revised version (Council of Europe, 1996; Miço & Mulleti, 2023), the Framework Convention for the Protection of National Minorities (Council of Europe, 1995) and the European Charter for Regional or Minority Languages (Council of Europe, 1992).

The European Convention on Human Rights [ECHR] addresses the right to education in Article 2 of the First Protocol, which states "No person shall be denied the right to education." This recognition of the right is all-encompassing, with no restrictions placed on individuals benefiting from this right or the level of education they can access. Article 2 of Protocol No. 1 covers elementary education, secondary education, higher education, and specialized courses. As a result, the right holders outlined in Article 2 of the Protocol include not only children but also adults and any individual seeking to avail themselves of the right to education (Miço, 2022). Article 14 of ECHR on the prohibition of discrimination reinforces the non-discrimination nature of Article 2 of Protocol No. 1, towards an accessible right to education (Koch, 2012, Todorova, 2019).

According to Harris et al., (2017), Roma are a recognized minority for the purpose of the Framework Convention for the Protection of Minorities. Romani language is recognized and

used as one of the minority languages used in at least 16 States Parties to the European Charter for Regional or Minority Languages (Council of Europe, 1992). Moreover, the Council of Europe, through the European Charter for Regional or Minority Languages, has foreseen the positive intervention of the state parties to offer education in all cycles in the official minority languages.

Acknowledging the urgent need of the Roma community for education due to the high rates of illiteracy or semi-literacy among them, their high drop-out rate, the low percentage of students completing primary education, and the persistence of features such as low school attendance, the Committee of Ministers of the Council of Europe adopted a recommendation on Roma children's education (Council of Europe, 2000). The European initiatives toward protecting the Roma community include the recommendation of the European Commission against Racism and Intolerance [ECRI, 2007] on combating racism and racial discrimination in and through school education, as well as the recommendation of the Committee of Ministers of the Council of Europe on the education of Roma and Travellers in Europe (Council of Europe, 2009). According to the Council of Europe (2009), the disadvantaged position of Roma and Travellers in European societies cannot be overcome unless access to quality education is guaranteed for Roma and Traveller children.

At the European Union [EU] level, the Racial Equality Directive (Council Directive, 2000) and the EU Charter of Fundamental Rights (The European Parliament, the Council and the Commission, 2012) are the main legal instruments combating discrimination. According to Article 2, of the Racial Equality Directive, direct discrimination is considered the case when a person is treated less favorably than another one in a comparable situation on grounds of racial or ethnic origin, while cases of indirect discrimination can be objectively justified (van den Bogaert, 2011). Yet, case laws of ECtHR demonstrate that *de facto* segregation of Roma and Traveller children based on their racial or ethnic origin exists, increasing the risk for the Roma community of being caught in the vicious circle of marginalization.

Methods

The paper will examine the right to education of Roma minorities in light of international instruments, conventions, and treaties approved by the United Nations, UNESCO, and European organizations, the international and European policies, strategies, and directives. This examination aims to demonstrate the development of this right in the national legal frameworks of the Western Balkan countries. The domestic legislation of these countries dedicated to protecting the right to education of Roma minorities will illuminate the legal issues concerning education such as discrimination, lack of access to quality education, language barriers, and poverty. The assessment of the right to education of the Roma minorities in the six countries of Western Balkan will reveal the extent of compliance with international and regional standards for minority protection and non-discrimination. To better illustrate the problems in the field of education, the analysis will be accompanied by the jurisprudence of the European Court of Human Rights related to the discrimination and segregation of Roma minorities in education. This article examines the function of documents as a data source in qualitative research and discusses document analysis in the context of identifying different

issues that hinder the equal realization of the right to education for Roma children (Bowen, 2009). The document analysis will identify the progress made by each country and the gaps that impede the availability and accessibility of the right to education without discrimination for this minority. The literature review will highlight the strengths and the weaknesses of strategic policy and legislative directions of Western Balkan countries concerning inclusion and teacher education. The analyses will address the following research question: How close or far from international instruments is the right to education for the Roma community in the countries of the Western Balkans?

Results

The international legal framework and national governments of Western Balkan countries have passed laws ensuring equality and inclusion in education without discrimination against all groups of society. The Western Balkan countries [WBCs] are committed to ensuring the right to education free from discrimination, as explicitly stated in their respective Constitutions. Significant attention is given to the right to education of national minorities (Zaçellari et al, 2018). The Western Balkans nations have recognized explicitly in their constitutions the right of minority groups to receive education in their mother tongue. The Roma community is recognized as a national minority by each of the WBCs, entitling them to use, learn, and receive education in the Roma language. These countries have also embraced a series of conventions aimed at safeguarding the educational rights of Roma children, with a primary focus on promoting equality and inclusivity through national measures. The summary presented in Table 1 illustrates the legal framework for the protection of the right to education of Roma minorities in WBCs.

Furthermore, endeavors to achieve the entitlement to education for Roma minorities are evident through a sequence of legal and administrative measures pursued by every nation in the Western Balkans. Albania, for instance, has established a system to recognize all school-age children to ensure their enrollment in educational institutions. To alleviate the financial burden on Roma families, Roma children are provided cost-free school textbooks and transportation services (Žerjav & Nikolić, 2020). A more proactive approach to implementing the right to education is being followed in Kosovo, specifically in Prizren, where the municipality has introduced classes in the Roma language and integrated Roma history and culture into primary education. North Macedonia has also taken steps. As Roma children often miss out on education within their appropriate age range, the Education Law mandates that children exceeding the age limit enroll in primary schools under the same conditions as other children. To fight discrimination against Roma children in education, North Macedonia's Law on Prevention of and Protection from Discrimination explicitly categorizes segregation as a form of discriminatory behavior (Žerjav & Nikolić, 2020). Positive instances include the Romani language courses available at Serbia's Belgrade Faculty of Philosophy and the establishment of a Roma cathedra at the Faculty of Foreign Languages in Elbasan, Albania. However, the continuity of Romani language courses has encountered challenges including the scarcity of Roma language professors with pedagogical qualifications (Albanian Ministry of Education and Sport, Instruction no.10, 2015), complications in curriculum development, and financial constraints (Averi & Hoxhallari, 2017).

Table 1

The protection the right to education for the Roma minority in the legal framework of WBC

| | Albania | Bosnia and Herzegovina | Kosovo | Montenegro | North Macedonia | Serbia |
|--|--|--|--|--|---|--|
| The right to education for minorities in the Constitution | Constitution of Albania law no. 8417, dated 21.10.1998 (as amended) Articles 18, 20, 57 | Constitution of Bosnia and Herzegovina 24 June 1994 (as amended) Articles 3 and 4 | Constitution of Kosovo 7 April 2008, (as amended) Articles 24, 47 and 59 | Constitution of Montenegro 22 October 2007 (as amended); Articles 17, 19, 75, 79 | Constitution of North Macedonia 17 November 1991 (as amended) Articles 7, 44, 48 | Constitution of Serbia 8 November 2006 (as amended) Articles 21, 71, 79 |
| National minorities | The Roma community is recognized as a national minority in the Law on the Protection of National Minorities adopted in 2017. | The Roma community is recognized as a national minority in the Law on the Rights of National Minorities adopted in 2003. | The Roma community is recognized as a national minority in the Law on the Protection and Promotion of the Rights of Communities and their Members adopted in 2011. | The Roma community is recognized in the Law on Minority Rights and Freedoms adopted in 2006. | The Roma community is recognized as a national minority by the 2001 Ohrid Framework Agreement and the Law on the Promotion and Protection of the Members of Communities adopted in 2008 | The Roma community is recognized as a national minority in the Law on the Protection of Rights and Freedoms of National Minorities adopted in 2002 |
| Framework Convention for the Protection of National Minorities | State Party to the Convention since 1999 | State Party to the Convention since 2000 | Specific monitoring arrangement in conformity with the 2004 Agreement between UMNIC and the Council of Europe | State Party to the Convention since 2006 | State Party to the Convention since 1997 | State Party to the Convention since 2001 |

| | | | | | | |
|---------------------------|--|---|---|--|---|---|
| Sectorial legal framework | The Law 69/2012 on Pre-University Education System in the Republic of Albania; Order No. 2, dated 05.01.2015, "On the approval of the regulation on the implementation of the Cooperation Agreement dated 02.08.2013" on the identification and school enrolment of all children of school age | The Framework Law on Preschool Education - The Framework Law on Primary and Secondary Education in Bosnia and Herzegovina | The Law No.04/L – 032 on Pre-University Education in the Republic of Kosovo | General Law on Education The Law on Preschool Education; The Law on Primary Education; The Law on Education of Children with Special Educational Needs; The Law on Gymnasium The Law on Higher Education; The Law on Vocational Education; The Law on Adult Education | The Law on Education; The new Law on primary education; The Law on Prevention of and Protection from Discrimination; Law on Secondary Education | The Law on Pre-School Education; Law on Primary Education; Law on Secondary School; Law on Secondary Education; Law on Dual Education; Law on Higher Education; Law on Adult Education; Law on Students' Standard; Law on Textbooks |
|---------------------------|--|---|---|--|---|---|

Discussion

According to Tomasevski (2006), abuses in education are especially widespread when diversity is denied. The essential content of the right to education is characterized by the essential elements of the scheme built by Katarina Tomasevski, the former UN Special Rapporteur on the Right to Education, a scheme otherwise known as the "4-As scheme" (United Nations, 1999). Tomasevski has highlighted four features of the right to education: availability or otherwise the possibility of provision, access or otherwise being accessible, acceptability, and adaptability. Governments must make education available, accessible, acceptable, and adaptable.

The first obligation of the state is to ensure the availability of primary schools for all schoolchildren, furnished with the essential resources for effective operation. Accessibility is an obligation that relates to ensuring access to available public schools, "most importantly under the existing prohibition of discrimination". Acceptability relates to the contents of educational curricula, textbooks, and teaching methods which have to be not only relevant but also culturally appropriate, whereas adaptability requires that the best interest of the child is always given prominence. Education must be flexible in the sense that it can adapt to the

changing needs of the students within their differing social and cultural contexts (United Nations, 1999).

However, in 2009, a report from UNICEF stated that Roma children face three significant challenges. Firstly, they experience stigma and discrimination linked to impoverished Roma communities. Secondly, being voiceless and dependent, they tend to have their needs and rights neglected during the social and economic changes in Central and Eastern Europe. Lastly, regular childcare and educational facilities do not consider the cultural and language aspects of Roma communities. This worsens their exclusion from services, leading to greater inequalities, marginalization, and vulnerability.

According to the European Roma Rights Centre [ERRC] (2016), while some progress has been made in the field of education in Albania, very few Roma are completing primary or secondary education, and segregation has worsened. Roma's inclusiveness has to start with preschool programs with equitable access and quality teaching. The discrimination against Roma minorities is reinforced in several textbooks in Bosnia and Hercegovina by stereotyping the country's ethnic groups. Kosovo exhibits notable challenges in its education system, including low enrollment rates in compulsory education of Roma children, elevated rates of students leaving school prematurely, and limited involvement in higher education, particularly among girls. Discrimination against children is a frequent occurrence, as well as the lack of quality educational resources and materials in the mother tongues of Roma communities. Furthermore, the percentage of Roma children in North Macedonia who are categorized as persons with psychological disabilities is disproportionately high. This is accompanied by a high percentage of segregated Roma children both in the regular schools (as part of regular and special classes) and in special schools. In Montenegro, the educational landscape for Roma and Egyptian children is concerning, with only around half of them enrolled in primary school at any given period. Even for those who manage to attend school, their academic performance is frequently poor, and dropout rates significantly rise beyond the age of 11. Whereas in Serbia, the situation regarding Romani students remains complex, as they continue to be disproportionately represented in special schools, despite a reduction in their actual numbers enrolled in these institutions.

The absence of providing the right to education to the Roma minority in their native language, along with appropriate educational materials in their language and instruction by teachers or mediators who can speak in the Roma language, creates significant barriers to accessing this right. Education of Roma children faces challenges stemming from both their segregation and the discrimination experienced by this minority group, as well as the lack of consistent and comprehensive measures undertaken by respective countries to facilitate this right. The segregation of Roma children has been widely acknowledged by researchers and confirmed by various reports issued by international organizations assessing the progress of education rights. The ECtHR regards the Roma as another particularly vulnerable group because they have suffered historical discrimination based on race and continue to be exposed

to its ongoing effects (Nifosi-Sutton, 2017). The jurisprudence of the European Court of Human Rights (ECtHR) has highlighted distinct cases of segregation concerning Roma children within both European Union countries and those within the Western Balkans region.

In the case X and Others versus Albania, supplying meals to Roma children at the "Naim Frasheri" elementary school situated in the southeastern region of Albania has intensified the segregation experienced by these children. Instead of fostering a sense of belonging within the school environment, these children feel disconnected from the broader community. The number of Roma children that frequented the school was growing disproportionately with the number of other children, until the school year 2019-2020, when 90% of the pupils of "Naim Frasheri" school were Roma/Egyptian pupils. Addressing this concern, the European Court of Human Rights has ruled that the Albanian government is accountable for segregating Roma and Egyptian children within a school located in Korca, in the southern part of the country (Case of X and Others v. Albania, Applications no. 73548/17 and 45521/19).

Another case of segregation is found in North Macedonia. Children residing in the Roma-majority neighborhood of Bair in Bitola have experienced increasing levels of segregation within their classes over several years. In the academic year 2021-2022, a notable development occurred: all children joining the "Gjorgji Sugarev" Primary School were of Romani ethnicity. This outcome largely resulted from non-Roma parents transferring their children to other schools with fewer Romani students, a trend often referred to as "White Flight." Simultaneously, there was a perception among parents that the educational quality offered in schools with a majority of Roma students was diminishing. The process of White Flight was facilitated by school authorities who placed obstacles, in the path of Romani parents attempting to do the same thing as non-Roma parents – enrolling their children in schools that could provide a better education.

Similar to the case of "Gjorgji Sugarev" Primary School was the case of "Goce Delchev" Primary School in Štip, where Romani students constituted 67% of the student body during the academic year 2018-2019. The concept of White Flight was identified as well as a contributing factor to the disproportionately high presence of Romani children in the school. Despite efforts made by the school to mitigate the segregation of Romani students, the Court deemed these actions ineffective. The European Court of Human Rights (ECtHR) concluded that two primary schools, "Gjorgji Sugarev" in Bitola and "Goce Delchev" in Štip, had violated the rights of Romani children to non-discrimination (under Article 14) in conjunction with their right to education (under Article 2 of Protocol 1) (Elmazova and Others v North Macedonia (dec.) no. 11811/20 and 13550/20, 13.12.2022).

The United Nations Committee on the Elimination of Racial Discrimination [CERD] recommendation on Discrimination Against Roma requires states to avoid segregation, to raise the quality of education and attainment in schools, and to improve retention. States are requested to take urgent measures to train educators, assistants, and teachers from among the

Roma community and to include Roma culture and history in teaching materials (CERD, 2000; O’Nions, 2010). Regarding the right to education of Roma children in Western Balkan countries, it is noted that the legal framework that sanctions this right and protects minorities is not sufficient to ensure inclusion and quality education.

Conclusions

To ensure children's access to education, a multifaceted approach is imperative. This entails implementing measures not solely focused on enhancing the learning process, but also addressing broader aspects such as poverty alleviation, housing concerns, labor relations, parental education awareness, and combating discrimination and segregation of Roma children.

To effectively realize the right to education for Roma children within educational institutions, it is essential to incorporate measures that facilitate the establishment of the initial training and ongoing professional development of teachers of the Roma language, and the establishment and operation of classes designed for Roma children as a national minority.

Recognizing that educating individuals from the Roma minority holds paramount significance, it's crucial to comprehend that this responsibility goes beyond a constitutional obligation; it fundamentally contributes to their societal integration. Consequently, it becomes imperative for Western Balkan countries to implement specific measures that guarantee all individuals genuinely access their right to education.

Furthermore, considering the shared social, political, and economic circumstances and challenges faced by the Western Balkan countries in this region, advocating for a regional approach to inclusive education is well justified. Notably, these nations possess education systems with analogous structures and are all undergoing comparable reforms, all aimed at securing equal opportunities for a diverse group of learners. These common factors will influence the inclusion of Roma minorities in education.

References

Albanian Ministry of Education and Sports. (2015, April 03). "On the content and form of the license which candidates obtain at the end of the state examination for the exercise of the regulated profession of teacher" Ministry of Education and Sports, Instruction no. 10, dated 03.04.2015. Official Gazette no. 70, year 2015.

Amnesty International. (2011). Briefing: Human Rights on the Margins, Roma in Europe, London: Amnesty International. Retrieved from https://www.amnesty.org.uk/files/roma_in_europe_briefing.pdf.

Avery, H., Hoxhallari, I. (2017). From Policy to Practice: Roma Education in Albania and Sweden. *Urban Rev* (2017). 49:463-477. DOI 10.1007/s11256-016-0394-5.



Bartlett, W., Benini, R., Gordon, C. (2011). Measures to promote the situation of Roma EU citizens in the European Union. *Report for the European Parliament*, Brussels: Directorate-General for Internal Policies, Policy Department C: Citizens' Rights and Constitutional Affairs.

Bowen, G. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, vol. 9, no. 2, pp 27-40. <http://dx.doi.org/10.3316/QRJ0902027>.

Committee on the Elimination of Racial Discrimination. (2000). Recommendation XXVII on discrimination against Roma 2000, A/55/18, annex V. Retrieved from <https://www.refworld.org/docid/45139d4f4.html>.

Council Directive. (2000). Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin. *Official Journal of the European Communities L 180/22, 19.07.2000*. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32000L0043&from=EN>.

Council of Europe. (1950). Convention for the Protection of Human Rights and Fundamental Freedoms. In Council of Europe Treaty Series 005. Council of Europe. https://www.echr.coe.int/documents/convention_eng.pdf.

Council of Europe. (1952). The European convention on human rights. Protocol 1. March, 20, 1952. https://www.echr.coe.int/documents/convention_eng.pdf.

Council of Europe. (1992). The European Charter for Regional or Minority Languages. European Treaty Series - No. 148. Council of Europe. <https://rm.coe.int/1680695175>.

Council of Europe. (1995). The Framework Convention for the Protection of National Minorities. European Treaty Series - No. 157. Council of Europe. <https://rm.coe.int/168007cdac>.

Council of Europe. (1996). The European Social Charter - Revised entered into force on 1 July 1999. *European Treaty Series - No. 163*. Retrieved from: <https://rm.coe.int/168007cf93>.

Council of Europe. (2000). Recommendation No R (2000) 4 of the Committee of Ministers to member states on the education of Roma/Gypsy children in Europe. (Adopted by the Committee of Ministers on 3 February 2000 at the 696th meeting of the Ministers' Deputies). Retrieved from <https://rm.coe.int/09000016805e2e91>.

Council of Europe. (2005). Political and Legislative Framework for the Education of Roma Children. Reference Texts and Support Systems. European Dimension of Education Division. <https://rm.coe.int/political-and-legislative-framework-for-the-education-of-roma-children/16808b3dfc>.

Council of Europe. (2009). Recommendation CM/Rec(2009)4 of the Committee of Ministers to member states on the education of Roma and Travellers in Europe. (Adopted by the Committee of Ministers on 17 June 2009 at the 1061st meeting of the Ministers'.



[Deputies](https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805b0a1c). https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805b0a1c.

ERRC. (2016). Written Comments by the European Roma Rights Centre for Consideration by the European Commission concerning Roma Inclusion in the Western Balkans Progress Reports 2016. http://www.errc.org/uploads/upload_en/file/ec-submission-on-roma-inclusion-in-the-western-balkans-july-2016.pdf.

European Commission against Racism and Intolerance. (2007). ECRI General Policy Recommendation No.10 on Combating Racism and Racial Discrimination in and through School Education, Strasbourg: Council of Europe. <https://www.coe.int/en/web/european-commission-against-racism-and-intolerance/recommendation-no.10>.

European Commission. (2012). National Roma Integration Strategies: A first step in the implementation of the EU Framework, Brussels, European Commission. Retrieved from <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0226:FIN:EN:PDF>.

European Commission. (2014). Report on discrimination of Roma children in education. Thematic Report. European Union. Belgium, 2014. Retrieved from <https://www.aecgit.org/downloads/documentos/568/report-on-discrimination-of-roma-children-in-education.pdf>.

European Commission. (2017). EU Roma Integration Award for the Western Balkans and Turkey. European Neighborhood Policy and Enlargement Negotiations. <https://childhub.org/en/series-of-child-protection-materials/european-neighborhood-policy-and-enlargement-negotiations>.

European Commission. (2018). Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. A Credible Enlargement Perspective for and Enhanced EU Engagement with the Western Balkans. https://neighbourhood-enlargement.ec.europa.eu/system/files/2023-01/communication-credible-enlargement-perspective-western-balkans_en.pdf.

European Court of Human Rights. (2007). Case of D.H. and others versus the Czech Republic. (Application no. 57325/00). <https://hudoc.echr.coe.int/fre#%7B%22itemid%22%3A%5B%22001-83256%22%5D%7D>.

European Court of Human Rights. (2008). Case of Oršuš and Others versus Croatia. (Application no. 15766/03). <https://hudoc.echr.coe.int/app/conversion/docx/?library=ECHR&id=001-87636&filename=CASE%20OF%20OR%C5%A0U%C5%A0%20AND%20OTHERS%20v.%20CROATIA.docx&logEvent=False>.

European Court of Human Rights. (2008). Case of Sampanis and Others versus Greece (Application no. 32526/05).

<https://hudoc.echr.coe.int/app/conversion/pdf/?library=ECHR&id=003-2378798-2552166&filename=003-2378798-2552166.pdf>.

European Court of Human Rights. (2022). Case of Elmazova and Others v North Macedonia. (Application no. 11811/20 and 13550/20).

[https://hudoc.echr.coe.int/fre#{%22itemid%22:\[%22002-13941%22\]}](https://hudoc.echr.coe.int/fre#{%22itemid%22:[%22002-13941%22]}).

European Court of Human Rights. (2022). Case of X and Others v Albania. (Application no. 73548/17 and 45521/19).

[https://hudoc.echr.coe.int/fre#{%22tabview%22:\[%22document%22\],%22itemid%22:\[%22001-217624%22\]}](https://hudoc.echr.coe.int/fre#{%22tabview%22:[%22document%22],%22itemid%22:[%22001-217624%22]}).

European Union Agency for Fundamental Rights (EU-FRA). (2014). Roma survey – Data in focus education: The situation of Roma in 11 EU member states. Luxembourg: Publications Office of the European Union.
https://fra.europa.eu/sites/default/files/fra_uploads/fra-2014-roma-survey-dif-education-1_en.pdf.

Farkas, L. (2007). Segregation of Roma Children in Education: Addressing Structural Discrimination through the Race Equality Directive, Luxembourg, European Commission.
<https://op.europa.eu/en/publication-detail/-/publication/e3f92f42-d829-4abd-a5d2-34985e97162f>.

Harris, N., Ryffé, D., Scullion, L., Stendahl, S. (2017). Ensuring the Right to Education for Roma Children: An Anglo-Swedish Perspective. *International Journal of Law, Policy and The Family*, 2017, 31, 230–267. doi: 10.1093/lawfam/ebx001.

Koch, I. (2012). The Right to Education for Roma Children under the European Convention on Human Rights. Retrieved from: <https://rwi.lu.se/app/uploads/2012/04/Right-to-Education-for-Roma>.

Lundy, L. (2012). Children’s rights and education policy in Europe: the implementation of the United Nations Convention on the Rights of the Child. *Oxford Review of Education* 38(4), 393–411. Retrieved from <https://www.tandfonline.com/doi/abs/10.1080/03054985.2012.704874>.

Miço, H., Mulleti, N. (2023). Social Inclusion in Education for Asylum-Seekers and Refugees: A Human Right or a Hope? *EUWEB Legal Essays Global & International Perspectives Issue 1/2023*. pp. 32-47. DOI: 10.1400/290935.

Miço, H. (2022). The Right to Education of Asylum Seekers and Refugees. The Reflection of International Instruments and Standards in Albanian Legislation. *EUWEB Legal Essays*

Global & International Perspectives Issue. Fasc. 2/2022. University of Salerno, Italy. pp 115-127. DOI: 10.1400/287590.

Nifosi-Sutton, I. (2017). *The Protection of Vulnerable Groups under International Human Rights Law*. Taylor & Francis. <https://bookshelf.vitalsource.com/books/9781317560715>.

Office of the High Commissioner for Human Rights. (2000). CERD General Recommendation XXVII on Discrimination Against Roma. Adopted at the Fifty-seventh session of the Committee on the Elimination of Racial Discrimination, on 16 August 2000 (Contained in document A/55/18, annex V). Retrieved from <https://www.refworld.org/pdfid/45139d4f4.pdf>.

Ohidy, A., Riddell, S., Boitiuc-Kaiser, A. (2022). Children's Rights in European Education. Dilemmas, challenges and implementation regarding Roma children in selected European countries – An introduction. *Hungarian Educational Research Journal*. 12 (2022) 1, 1-11. <https://doi.org/10.1556/063.2021.00086>.

O'Nions, H. (2010). Different and unequal: the educational segregation of Roma pupils in Europe. *Intercultural Education* 21(1), 1–13. https://is.muni.cz/el/1490/jaro2014/CZS13/um/12_O_Nions_Education.pdf.

The European Parliament, the Council, and the Commission. (2012). Charter of Fundamental Rights of the European Union. *Official Journal of the European Union* 2012/C 326/02. Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:C2012/326/02>.

Todorova, V. (2019). Discrimination in Education of Children in Central and Eastern Europe in the Jurisprudence of the European Court on Human Rights. *2019 De Jure Law Journal*. 580-596. <http://dx.doi.org/10.17159/2225-7160/2019/v52a33>

Tomasevski, K. (2006). Why isn't education free? *The right to education and rights in education*, (Jan De Groof and Gracienne Lauwers (eds.) Wolf Legal Publishers, The Netherlands. 2006. p. 266.

UNESCO. (1960). Convention against Discrimination in Education. Retrieved from http://portal.unesco.org/en/ev.php-URL_ID=12949&URL_DO=DO_TOPIC&URL_SECTION=201.html.

UNICEF. (2011). The Right of Roma Children to Education. Position Paper. Geneva, Switzerland. <https://www.unicef.org/eca/media/1566/file/Roma%20education%20postition%20paper.pdf>.



United Nations. (1948). Universal Declaration of Human Rights. UN General Assembly Resolution 217 A (III), 10 December 1948. Retrieved from <https://www.un.org/en/about-us/universal-declaration-of-human-rights>.

United Nations. (1965). Convention on the Elimination of All Forms of Racial Discrimination, adopted by the United Nations General Assembly on 21 December 1965. Retrieved from <https://www.ohchr.org/en/treaty-bodies/cerd/international-convention-elimination-all-forms-racial-discrimination-50-years-fighting-racism#:~:text=On%2021%20December%201965%2C%20the,to%20target%20oppression%20and%20discrimination>.

United Nations. (1966). International Convention on Economic, Social and Cultural Rights, adopted on 16 December 1966, by General Assembly Resolution 2200A (XXI). Retrieved from <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights>.

United Nations. (1979). Convention on the Elimination of All Forms of Discrimination against Women, New York 18 December 1979. Retrieved from <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-elimination-all-forms-discrimination-against-women>.

United Nations. (1989). Convention on the Rights of the Child. November, 20. 1989. <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>.

United Nations. (1999). CESCR General Comment No. 13: The right to education (Art. 13) Document E/C.12/1999/10, Office of the High Commissioner for Human Rights. (Adopted by the Committee on Economic, Social and Cultural Rights at the Twenty-first Session, E/C.12/1999/10, 8 December 1999). <https://www.ohchr.org/en/resources/educators/human-rights-education-training/d-general-comment-no-13-right-education-article-13-1999>.

United Nations. (1999). General Comment No. 13: The right to education (article 13) (1999). Adopted by the Committee on Economic, Social and Cultural Rights at the Twenty-first Session, E/C.12/1999/10, 8 December 1999. Retrieved from <https://www.ohchr.org/en/resources/educators/human-rights-education-training/d-general-comment-no-13-right-education-article-13-1999>.

United Nations. (1999). Preliminary report of the Special Rapporteur on the right to education, Ms. Katarina Tomasevski, submitted in accordance with Commission on Human Rights resolution 1998/33. E/CN.4/1999/49 13 January 1999. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G99/101/34/PDF/G9910134.pdf?OpenElement>.

Van den Bogaert, S. (2011). Roma Segregation in Education: Direct or Indirect Discrimination? An Analysis of the Parallels and Differences between Council Directive

2000/43/EC and Recent ECtHR Case Law on Roma Educational Matters. *Heidelberg Journal of International Law.* ZaöRV 71/4, 719-753 (2011). https://www.zaoerv.de/71_2011/71_2011_4_a_719_754.pdf.

Zaçellari, M., Miço, H., Sinitsa, I. (2018). Inclusive education for Roma children in Albania and Belarus (legal situation, accessibility, opportunities to learn in own language and support of ethnic identity). *Polish Journal of Educational Studies.* ISSN 2657-3528 2018, Vol. I (LXXI). DOI: 10.2478/poljes-2018-0016.

Žerjav, B., Nikolić, P. (2020). Mainstream Policies Targeting Roma Integration in the Western Balkans. Regional Overview. Regional Cooperation Council Roma Integration Action Team. Belgrade, Serbia. ISBN-978-86-81358-09-2. <https://www.rcc.int/romaintegration2020/files/admin/docs/bc683d69caea951b0ba571874161cc27.pdf>.

**SUBJECT- SPECIFIC DIDACTIC CONCERNS IN
TEACHER EDUCATION (E.G., REGARDING
SCIENCE, MATHEMATICS, FOREIGN
LANGUAGES, ENTREPRENEURSHIP, DIGITAL
TECHNOLOGIES**

1. DIGITAL GAME- BASED LEARNING EXPERIENCES OF EDUCATIONAL SCIENCE STUDENTS

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Abstract

This paper explores the relationship between the use of digital games and students' perspectives and experiences on learning while playing games during the digital game-based learning course. It is a qualitative research conducted with international students in the second year of their master's degree in educational sciences in Hungary. In total, 13 international students participated in the game-based learning class. A 3-stage within narrative essay task was used in the research. The instruments included a consent form, background information, and composition of gaming experiences are requested. Students' narrative essays with thematic analysis provided insights into the advantage of learning by having real life circumstances. It has been shown that the digital game learning course positively influenced student readiness for learning and improving problem-solving with real-life simulations. Students' narrations; "I would like to emphasize the importance of playing games from my perspective and experience. It's beneficial and useful in our life in terms of dealing with different situations and finding solutions for different kinds of problems, enhancing our creativity, and thinking skills. (N6). "Regarding problem-solving tasks, I was sure to apply my real-life skills to tackle the problems in games and I have developed my creative thinking skills more during game playing and I have learned certain skills through features of games, particularly, role-playing opportunities seem to be applied to reality."(N5). These findings suggest that incorporating digital games into an educational context has the potential to foster students' social skills. Further research is needed to explore the variety of digital game genre effects with specific skills.

Keywords: *Digital game-based learning, Student teachers' experiences, digital games, learning objectives, DGBL*

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INTRODUCTION

Along with technological developments, digital games and learning with games have also found their way into information and communication technologies. With the easy accessibility of digital games, it has been presented as a modern, innovative, and effective learning method. In addition to learning information, it has attracted attention from educators in terms of being permanent and the continuity of learning digital games being accessible regardless of time and place.

The research overall considers the discourses and value of playing the games in the framework of motivation, skill, and experience which are learning outcomes. Digital games require

instruction to be used for acquiring skills such as creative thinking ability under the game-based learning approach. Bourgonjon et. all. (2009), mentioned that digital games are important for educational systems in two ways; first of all, they are influential because games are a very popular and widespread leisure activity for the age groups that systems are trying to educate by playing games In their leisure time young people learn informally and acquire certain skills knowledge and values knowledge and skills with digital popularity of digital games, it would popularity, it would be unwise for education systems and education systems and teachers to ignore them. Designers have to understand what students' real-life skill experiences and digital experiences are while they learn about problem-solving and collaboration skills. The study of cognitive process and the relationship with the application of digital games for specific learning content requires of individual's experiences such as games and players' experiences are independent as each individual's learning style differs. But there is common ground for digital games to influence learning because all games are fun. The study will discover students' perspectives on games' features and at the same time recognize what kind of intellectual process will be required for each of them to be able to develop their problem-solving and collaboration skills will be examined at the end of the research. Those outcomes will help designers and educators about how digital games are important tools in teaching settings such as the improvement of problem-solving and collaboration skills and for designers in the future, at the same time how to meet the demand of skill acquisition and progress of enjoying elements as joy is important for motivational demand and skill acquisition require behavioral responses and intellectual support. The relationship between digital games and the practice of the skill, as well as identifying factors influencing the educational technology student through game-based learning is important. As Mysirlaki and Paraskeva and Akilli, (2007), conclude that as a result, there are lecturers, instructional designers, and researchers have proposed video games as a learning and teaching medium. higher education students who experienced playing games during class around the world have a limited number of students. Therefore, more research about students who studied digital game-based learning and their perception and attitude toward the use of digital game-based learning in potential learning on the acquisition of problem-solving and collaboration are important. According to a large margin of researchers, digital games are the most effective social interaction skill tool which engages with teams in the digital environment in the field of game story and game level. Eck (2006), point out that play experience according to researchers, is a mainly mechanism of socialization and learning process shared by all human cultures and many animal species.

Research Significance

When the related literature is examined; Many features of digital games through serious games and educational games have been the subject of research and learning with games has been mentioned. This study aims to examine general beliefs and experiences in video games that can be used for educational/skill development purposes and that can simultaneously improve the skills of players with adventure and entertainment elements in real life and the simulation game world. It is tried to obtain information with students' perspectives about the features of the game, which is necessary for a gamification-based education, and to gain experience in the students' problem-solving and collaboration-based simultaneous development in newly designed games. It is believed that the game experience of the students will include views that will help to look from two sides, both in terms of being students who have taken the game-

learning course and in terms of their teaching identities as educational science graduate students. In the games developed, it will be important to have a game evaluation analysis of the relationship with the player, one of the elements of the game. The research aims to review the effects of 21st-century skills on digital games from their experiences in the world and the game, rather than being a motivation tool for students, and to determine the opinions of students who play games about entertainment games.

Research Problem

The integration of daily life digital games into learning has not received much attention in the development of instructional technologies that today's students desire. Royle (2008), says that in spite of the leading motives of instructors and the games industry, attempts to integrate games into the curriculum have often failed. Such efforts have failed either because educational games fail to interest the intended audience or because truly engaging games fail to deliver adequate instructional value. For example, interest in digital gaming the design of educational games, and the use of serious games have been the subject of research for learning with games for some time, but the use of different types of games for learning and experiencing specially to strengthen problem-solving and collaboration through students' experiences, is rarely mentioned.

Serious games and gamification have been the number one research subjects of learning with games. Most of the feedback given to the game developers has been evaluated as limited for a certain subject over the games designed and implemented for education. The skill development of the games was included as a potential outcome, but it was not considered in terms of its contribution to the skill development training process at a certain time.

Some studies show that games have elements for improving skills, but it doesn't mention how digital games can be used and why and how it's important to be used for building skill development with the usage of entertainment games hasn't gotten much attention. Digital games have specific/sufficient elements which will be helpful to use digital games for teaching problem-solving and collaboration skills. Students' perspectives carry big importance for further attention on games' features and player's interaction with games. The accurate answer will be trying to be found out by educational technology student experience and beliefs while playing games what kind of skills or knowledge it helped them to improve their collaboration and problem-solving skill will get main attention. While investigating these, it will be tried to determine how much they learn in real life and how much they apply to their experiences in digital life, and it will be pointed out that the effects of the game in many areas rather than the sedentary lifestyle, especially it will focus on why their use in learning with games is important.

Research Purpose

Study purpose to conclude the effectiveness of diversified genres of digital games as instructional techniques and attributes in education. This study compared the differences in students' perspectives following game-based learning courses. Findings from comparisons between the instructional techniques of reasons of play, thoughts of play, prior knowledge, skills development based on approaches to learning with digital games, and digital-real life practices in video games. Motivation towards game-based learning, reason toward playing video games, attitudes towards game-based learning. Students' narrations will be used to report

findings on whether students believe that digital games can be used for knowledge and skill-building better under game-based learning classes. Although game-based learning has been studied extensively in serious and educational games context, research on the advantages and disadvantages of games in the scope of skills and real-life experience outcomes are still limited in scope.

The study aim was to depth in students of the educational sciences' perceptions of the potential benefits, or lack of digital games usage in the context of learning and skill development. This study aims to investigate objectives of the students' viewpoints on the function of plaid digital games according to problem-solving and collaboration skills who will have a master's degree in educational technology, which are spreading rapidly in the age of rapidly developing technology, exploring whether students believe that playing games can be a crucial part of learning(game-based learning) and experiencing problem solving and collaboration, and finding out what effect game playing perceptions cause will contribute to the use of future games in learning and production..

The aim of the research can be found by the continuous questions will help to understand why qualitative research narrative essay task instrument is important to be used for game experiences.

-How digital games can be used for supporting learning in the framework of game-based learning.

-What kind of interventions are shaping game experiences in the framework of learning and experiencing in real and simulated life?

Research Questions

This study has a main research question on playing games experiences examined according to knowledge and experiences.

R1. What are the students' reasons for playing digital games?

R2. What do students think about the advantages and disadvantages of playing digital games?

R3. What features of digital games make students perceive gaming as a tool to develop problem-solving and collaboration skills?

METHOD

The qualitative analysis'one approach is the thematic analysis. Thematic analysis means that as Braun and Clarke (2006), mentioned thematic analysis approach is developing themes from qualitative data. Thematic analysis is appropriate to discover the perspectives and mindset of a particular group of people about a specific area or issue and the result of data doesn't need to create a new theory, the main purpose is to interpret many results from collected qualitative data and elaborate digital games' functions from student's view.

Thematic analysis will help categorize digital games into the 3 different areas digital games can be used as learning tools, can be used digital games as collaborative tools, or digital games as problem-solving tools. Data is processed according to the qualitative method. The thematic research quantitative research method, allowing to the interpretation of the findings in wider categories is among the most important features of this research model. Strauss & Corbin (1998), mentioned that the definition of "qualitative research" implies that it is a nature of research in which the results are not obtained by statistical operations or quantitative tools. Also, Elçi and Devran (2014), mentioned that narrative essay tasks are usually used in social

science studies, but the recent years' educational researchers also started to use the narrative approach. The qualitative study used a narrative essay task to understand feelings in relation to digital games in a learning situation. In this research to interpret participants' pedagogical, curricular, and individual learner needs and relations with experiences narrative research will be helpful. Research' Instruments' which has situated and designed with narrative essay task instrument featured with 3 stages. Instruments include 3 parts: 1st is the consent form which participants accept to join research anonymously. Second is background information such as age, gender, previous studies, and mother tongue, and some preliminary information about digital game playing frequents, devices, and types that will help to examine variables and their intentions and effects. 3rd part is an essay writing question in which students must write about game-playing experiences during game-based learning class. 3rd part is important because students were asked about their perceptions of playing digital games for learning/developing skills and whether they believed that playing games in a learning context, problem-solving, and collaboration skill development has meaning will be analyzed. Narrative essay task designed to explore educational technology students' experiences and perceptions of digital game functions, including discussion of the usage of digital games in the context of skill development. Clarke and Braun (2006), stated that inductive analysis is defined as the act of coding data without attempting to fit it into a pre-existing encoding framework or the researcher's analytical biases. In this way this type of thematic analysis is data-driven.

Table 2
Theme Analysis Table Braun&Clarke (2006)

| | Thematic Analysis Steps | Guideline |
|---|---------------------------------|---|
| 1 | Collected Data Notes | To conduct a theme analysis, oral data will be transcribed. |
| 2 | Initial Codes from Notes | Familiarize with data and create a list of initial ideas about what's in the data and what's interesting about it. Existing initial codes according to related arguments in research |
| 3 | Searching for Categories | On a separate sheet of paper, write down the name (and a brief description) of each code, and then play with them by accumulating them into themes. |
| 4 | Check Themes | Two seemingly separate categories can form a single theme. If the theme is not a consistent pattern, you rework your theme, create a new theme, and find a new theme. |
| 5 | Themes Descriptions | Sub-themes are essentially themes within a theme. Give structure and see if you can define the scope and content of each theme in a few phrases. |
| 6 | Transcribe and Write the Report | The end analysis is to communicate the intricate tale of your data in a way that convinces about the research' quality and validity of your analysis, which requires a set of completely worked-out themes. Data extracts must provide a clear, coherent, consistent, non-repeating, and appealing to read about how the data came about tell—both within and between themes. |

FINDINGS

Findings detail the result of the study. It presented the reasons for learning with games and digital game experiences in physical and digital learning in skill development through the results of the participants. The factors affecting the game experience, the analysis of experiences and situations for problem-solving and improving cooperation, are included in this section. Students' reasons for playing games are to develop students' ability to think independently, solving problems, and social cohesion or mandatory tasks. It arouses interest and desire for learning. It can enable students to think multi-dimensionally as part of the decision-making process. According to the results, most of the participant students stated that they found the reasons for playing video games important because the game motivates them, keeps them away from stress, and entertains them with real-life simulations. N8, N1, and N11 all agreed that digital learning games are only motivational aids because they are enjoyable to play, a fun way to spend leisure time, and they are intriguing. N2, N3, N5, N6, N7, N8, N10, N13 said that as effective digital technologies in education, it is necessary to both learn and have sufficient skills with digital games as well as learning with digital games. They claimed that such digital games might aid with engagement, success, group cohesion, problem-solving, coordination, cooperation, creativity, computing and communication, IT abilities, and reading and writing while playing games.

I found that some students had mixed feelings about digital games seem learning and skill development tools. Some of them stated that they thought that they played these games because of the necessity of the lesson and that they cooperated, but they did not think that they had learned anything. N12 mentioned that there is no learning outcome with video games and stated if the narrator wanted to play games to learn, then the narrator would prefer games for cognitive development such as language development. "My motivation to play digital games was mostly based in the assigned tasks within the game-based learning course, I don't usually play digital games, otherwise, except occasional puzzle-based games like sudoku or language learning games, like **Duolingo**" (N12)

I found that narrator 6 has an important notice in learning with game-based learning that it helps them to develop their problem-solving and multi thinking abilities are increased. "Indeed, it has been a long time without playing video games until we have a class called game-based learning. I used to play car racing games like; **Need for Speed** as well as fighting games (war, ...) such as **Counter Strike**. Before, I did not appreciate the importance and advantages of playing games in our life, and how they can affect our way of thinking and problem-solving." (N6)

Students learning experiences are that the reinforcers in the digital game features, for example, are the fact that the game is segmented and can be played again, that it can be played with multiple people, that it has different characters and stories, and that it has ways and means to make one observe that the game constitutes the learning process. "Features helped me to learn: The feature to explore and some additional features gained during the character development." (N1)

I found in Narrator 5 that the experiences while playing the game improved the creative thinking skills which have been also applied in real life. The narrator used to solve problems in real life, as well as creative thinking skills and problem-solving skills in solving the problems in the game. "I was confident that I would use my real-life skills to overcome the complications in the games and develop my creative thinking. The games I enjoyed more were Tetris,

Minecraft, Zumo, Mobile Legends, etc.” (N5) The results show that learning by considering the games has been influenced by its own as if players can use those skills in real life.

Also, I found in Narrators 1 and 12 thought reasons for play categorized under motivation with the game’s features navigations, and visual effects. Participants mention that games are joyful with their own visual effects and music. “Motivation: For the person who is not too interested in and familiar with playing video games, the visual appearance of the game has stolen my attention since the first time. I played a game named **GRIS**. (N1) “Games are good motivators for helping to make meaning into life for existence.” (N12) “Simple navigation and puzzle mind activities motivate to play.” (N1)

I found Narrator 11 mentioned the reasons for playing games from two different angles as advantages such as interaction with new people and disadvantages of games such as time consumption and addiction. “I played the VR game **Beat Syber**. There are many advantages of playing digital games such as you can communicate with your friends online, you can interact with new people while playing, you don’t need to go anywhere to start playing a game. But I see more disadvantages such as being time-consuming, which can trigger and cause addiction, one can become aggressive if there is no access to the games. (N11)

I found that Narrator 9 acknowledges that challenge is an important feature of games in the framework of the learning aspect. “**Terraria** has the same value, applying the core **Super Mario** Effect in its every game. A player(s) may find it hard to kill their first mob (I died several times because of slime, the weakest monster in the game) but it challenges player(s) to return and beat that monster again and again. The main point in the game is not beating the monster, but to improve to be better and better.” (N9)

Players' interaction with in-game platforms was mentioned in Narrator 8 shows that students learn, enjoy, and practice with **MMORPG games** with interactivity with people in real life and digital life. Narrator 8 considers the digital games played to be powerful collaborative games. Providing a safe and interactive environment for the game is one of the features that make the game strong in teamwork. “I think that there are many advantages of playing digital games, such as digital games are socially interactive environments, communicating online seems safer and easier for gamers and young people, social communication, and group cohesion. **Minecraft, and Fortnite** (creative mode) boost my creativity. (N8)

I found that Narrator 3 pointed out some awareness in the life circumstances “I think I learn how to respect others and help each other through our same goal, winning the game. Also using strategy to see anything from a different perspective, not only once. I play **UNO and Marvel's avenger**.” (N3)

RESULT AND DISCUSSION

The research mostly measured the impact of student experiences in the practical field of game-based learning courses. It contributed to the impact of the games on the players. The place of video games in learning, which is showed that for motivate and experiences in learning as multidimensional, has been emphasized again. Explaining the character structure of the class, learning objectives, and examining the player types before taking the learning-by-game lesson, shaping the learning-by-game curriculum according to the class. Shapiro (2014), game has challenges and fun it is appropriate to be used for learning. The author highlighted game features that help to think strategically Maze games have challenges and it requires strategic

thinking. Narrators expressed challenges in achievement games increase students' attention and strategic thinking. Carlo (2000) that strategic thinking, which is linked to the game's rules, is a crucial component for determining what information is required and how to collect it. Experienced students uncovered the influence of digital playing experiences on achieving particular learning goals, such as knowledge and skill development (communication, collaboration, creativity, problem-solving, reasoning, motor, soft, and self-learning). It has been emphasized that digital games are an important resource to meet the need in real life, due to the educational use of games in the game-based learning course because difficulty to catch the readiness of students' video games are a new possibility for student-centered learning. The scope of digital games and the situations of learning with games has become a challenge since learning in humans can differ in many stages and some of the learning methods are insufficient to measure the readiness of the student.

By completing this research, data showed what kind of potential video games can classify as potential learning instruments in real-life circumstances and how they could be connected to real life interactions. Yiğitoğlu (2018), commented that children's commitment to play is not just to copy the world. It is to fabricate another world that lives with the world and maintains its own life, a living life that is much more emotional than ordinary realities. Every digital game that is suitable for use in education must have certain criteria in the context of the content of real life attachments. More importantly, students' motivation while playing games is more effective than motivation strategies in learning about games, life, skills, attitude. The game does not motivate as a reward tool, on the contrary, it acts as a reward reinforcer as a motivation tool. Engels et al. (2013), said that video games provide players with immersive and engaging social, cognitive, and emotional involvement which individuals face everyday dynamic of relationships. Motivations such as emotional involvement, interaction as social development and learning acquisition with real-life experiences as cognitive development show that game-based learning courses have wider opportunities for integration of video games. Because in the game experiences of the students have a big output on learning. Game-based learning might be helpful in the subjects that are difficult to remember. The education context-based games can be eliminated within effective culture, and experiences in real and digital life, where the student can add something to himself with the use of different games. Prejudices against technology and digital gaming will likely change, and new technology-oriented curricula will be created to provide simulation that include life interactions. In addition to game-based learning games, it is believed that continuing studies on the educational value of video games will open a new horizon in the new education system integrated with digital pedagogy and technology. The fact that many 21st-century skills can be gained through games will help video games not only educationally, but also in working life and lifelong sustainable learning.

REFERENCES

- Bourgonjon, J., Valcke, M., Soetaert, R., & Schellens, T. (2009). Students' perceptions about the use of video games in the classroom. *Computers & Education* 54 (2010) pp.1145–1156.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), <https://doi.org/10.1191/1478088706qp063oa> pp.12-87.
- Strauss, A. L., & Corbin, J. M. (1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Sage Publications, Inc. Pp.39
- Elçi, A., & Devran, B. Ç. (2014). A narrative research approach: The experiences of social media support in Higher Education. *Learning and Collaboration Technologies. Designing and Developing Novel Learning Experiences*, 4. https://doi.org/10.1007/978-3-319-07482-5_4 pp.4.
- Fabricatore, Carlo (2000) Learning and Videogames: an Unexploited Synergy. In: 2000 Annual Convention of the Association for Educational Communications and Technology (AECT). Workshop: In Search of the Meaning of Learning., 2000, February 17, Long Beach, CA, USA. (Unpublished) pp.11-13
- Granic, I., Lobel, A., & Engels, R. C. (2013). The benefits of playing video games. *American Psychologist*, 69(1), pp.66. <https://doi.org/10.1037/a0034857>
- Mysirlaki, S., & Paraskeva, F. (2007). Digital Games: Developing the issues of socio-cognitive learning theory in an attempt to shift an entertainment gadget to an educational tool. 2007 First IEEE International Workshop on Digital Game and Intelligent Toy Enhanced Learning (DIGITEL'07) <https://doi.org/10.1109/digitel.2007.18> pp.157.
- Royle, K. (2008). Game-based learning: A Different Perspective. p.1.
- Shapiro, Jordan 2014 *The MindShift Guide to Games and Learning* pp.19-21.
- Yiğitoğlu, V. (2018). Oyun değer - Digital oyunlar ve kullanıcılar üzerine bir inceleme: To the Moon örneği [Doctoral dissertation, Halkla İlişkiler ve Tanıtım Anabilim Dalı, Danışman: Dr. Öğretim Üyesi Özge Uğurlu, T.C. Maltepe Üniversitesi, Sosyal Bilimler Enstitüsü].

2. ENTREPRENEURSHIP COMPETENCE IN SCHOOLS: A SYSTEMATIC REVIEW

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Abstract

In this systematic review study, we present research in the field of entrepreneurial competence development in schools. After thorough research on the Web of Science, we identified seven relevant studies. Based on the analysis of these research studies, we provide answers to three research questions. We explore how authors define entrepreneurial competence, what goals they set in their studies, and what research methods they apply in their research. The study results demonstrate diverse perspectives on entrepreneurial competence and approaches to its development. Emphasis is placed particularly on the importance of a comprehensive structure of this competence and the need for its inclusion in various educational contexts.

Keywords: *entrepreneurship competence, entrepreneurship education, systematic review*

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Introduction

The phenomenon of entrepreneurship and related topics gained popularity in academic circles and the business world in the first half of the 20th century, primarily based on the seminal works of Joseph Schumpeter (Schumpeter, 1912). Entrepreneurship as a subject of education emerged at Harvard Business School, where in 1947, Myles Mace offered the first entrepreneurship course titled 'Management of New Enterprises,' and just a year later, the first research center in this field - the Centre for the History of Entrepreneurship (Cooper, 2005) - was established. Entrepreneurship rapidly spread worldwide as an educational trend and a 'remedy' for numerous economic and social issues. Initially, attention was focused on the issues of starting and managing a business - the so-called 'doing business.' However, in the last two decades, research has predominantly focused on questions of entrepreneurial skills, attitudes, and behaviors (European Commission, 2006). Currently, entrepreneurship education or educational programs aimed at developing entrepreneurial competencies are being introduced at all levels of education on all continents. The intention is to equip young adults with competencies that will enable them to cope with the fast pace of societal changes, face

professional challenges and changes in the job market, and create valuable and sustainable solutions to social and economic problems, environmental challenges, and the negative impacts of technological progress on people's lives.

Since the introduction of entrepreneurial competence as a key tool for transforming the European Union into the most dynamic and competitive economy by 2010 (Lisbon Strategy, 2000, now an unavailable document - replaced by the Europe 2020 strategy), the European Union gradually adopted a series of measures aimed at anchoring entrepreneurial competence in curriculum documents (Eurydice Study on Key Competencies, 2002; Recommendation of the European Parliament and the Council on Key Competences for Lifelong Learning, 2006; Small Business Act for Europe, 2008; Action Plan for Entrepreneurship 2020; Establishment of the European Entrepreneurship Competence Framework, known as EntreComp, 2016; EntreComp into Action: get inspired, make it happen, 2018; EntreComp at Work: The European Entrepreneurship Competence Framework in action in the labour market, 2020). Despite the significant interest in the topic of entrepreneurship, which is evident from the abundance of review texts (e.g., Duval-Couetil, 2013; Kamovich & Foss, 2017; Rideout & Gray, 2013; Jardim et al., 2021; Banha et al., 2022), research in the area of developing entrepreneurial competence in school practice is neglected.

Theoretical background

A more detailed elaboration of entrepreneurship competence varies according to the specifics of different educational systems, theoretical approaches, and competency models that have emerged in recent times (Bacigalupo et al., 2016; Jardim, 2021; Gibb, 2008; Consortium for Entrepreneurship Education, 2004; Rasmussen & Fritzner, 2016; Rasmussen, 2015).

According to Hisrich et al. (2017), entrepreneurship is not limited to starting new businesses but also encompasses activities within existing organizations that foster innovation and promote growth. In this broader sense, entrepreneurship is essential for economic development and job creation, as it leads to the formation of new businesses and the expansion of established ones.

Considering the connections of the Czech Republic to the European educational environment, in this study, we primarily base our understanding of entrepreneurship competence on documents from the European Commission. Entrepreneurship competence is understood as the ability to act on opportunities and ideas and transform them into value for others. It is based on creativity, critical thinking and problem-solving, initiative, perseverance, as well as the ability to collaborate to plan and manage projects with cultural, social, or financial value (Bacigalupo et al., 2016). This definition thus encompasses all spheres of life and various types of entrepreneurial actions, including social, green, digital, etc. According to the EntreComp framework (Bacigalupo et al., 2016), competence consists of three areas: Ideas and Opportunities, Resources, and Into Action. Each area then includes five sub-competencies described using descriptors. EntreComp also allows for tracking the overall development of competence through an 8-level model and a list of 442 learning outcomes, which serve as a guide for mapping entrepreneurship competence not only in educational practice (Bacigalupo et al., 2016, p. 12). The comprehensive elaboration of competence and, at the same time, the general formulation of its definition by the EntreComp model supports the belief that it is possible to promote and spread an entrepreneurial culture in a way that includes not only those

born into a family and socioeconomic context conducive to entrepreneurship but also those who can acquire and develop the skills, competencies, values, emotions, and tools of this culture through learning and training (Hisrich & Peters, 1995).

Research methods

Aims

This study aims to provide the reader with a structured overview of empirical studies in the field of educational research focused on the development of entrepreneurship competence

within formal education. To fulfill our goal, we directed our efforts by formulating several research questions.

Q1: How are entrepreneurship competencies defined in the selected studies?

Q2: What are the research objectives set by the authors of the selected studies?

Q3: What research methods do the authors of the selected studies employ?

Method

To address the formulated questions, we chose the form of a review study (Mareš, 2013), and in the selection of studies, we proceeded as follows. The search for research studies was initially conducted through the Web of Science (WoS) database in December 2022.

The search in the WoS database was limited to research studies in English, Czech, or Slovak falling within the scope of educational research, published from 2016 to 2022. The focus on searching exclusively for educational research studies arises from the need to exclude from the searched studies works that, although they deal with the development of entrepreneurship competence, do so outside the realm of formal education, most commonly in the context of business (as a profitable activity - business management), and therefore primarily fall into the field of management or economics. The limitation to the year 2016 was primarily set because the European Entrepreneurship Competence Framework (Bacigalupo et al., 2016) was published at this time, which we consider to be key and use as the basis for defining entrepreneurship competence.

For the search of studies, the following keywords and phrases were defined: "entrepreneurship competence*"; "entre-comp"; "entrepreneurship education"; and "primary". The first three keywords arise from the theme of the review study and the aforementioned importance of the EntreComp document. The term "primary" was used mainly to limit the searched studies primarily to those examining the level of primary education, which is the subject of our research. The search was conducted in two steps, as entering keywords in combinations of four yielded significantly fewer results. For the first search, three keywords (phrases) were used: entrepreneurship competent*, entrecomp, and primary, after which WoS provided 77 relevant entries. In the second search, by entering the keywords: entrepreneurship education, entrecomp, and primary, WoS found 53 records.

The process of selecting suitable studies for subsequent analysis was performed manually based on the content of the abstract and its relevance to the aims of this study. In the analysis of abstracts, particular attention was paid to whether the study explicitly addresses the concept

of entrepreneurship competence, entrepreneurship education, or the competency model of entrepreneurship. Furthermore, we observed whether the research is focused on the area of formal education and whether students or the school curriculum are the subject of the research. Studies whose primary focus was primarily on teachers or mapping entrepreneurship competence in educational programs implemented outside formal education were therefore excluded. Despite the initial ambition to focus only on studies mapping the level of primary school, due to a lack of studies, we included in the final selection seven research studies from WoS that also dealt with entrepreneurship competence among students in secondary or higher education.

Results

Q1: How are entrepreneurship competencies defined in the selected studies?

The first group of studies refers to EntreComp (Bacigalupo, 2016), which understands competence as a cross-cutting skill applicable to individuals and groups, including existing organizations, across all spheres of life. Some studies (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021; Lilleväli & Täks, 2017) take into account the existence and content-related and definitional delimitation of competence according to EntreComp, often linking entrepreneurship with the sphere of social entrepreneurship. Two studies (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021) directly utilize the EntreComp model (in its original or modified form) as a self-assessment questionnaire for students' competencies or to evaluate the effectiveness of entrepreneurship development programs. One study compares the EntreComp model with four other existing models (Lilleväli & Täks, 2017).

Pepin (2018) does not explicitly use any definition of entrepreneurship, as the conceptualization of entrepreneurship competence or the creation of a competency framework is the goal of his research. The conclusions of this study also lead to defining entrepreneurship competence as a complex ability to seize opportunities and stimuli and transform them into value for others. It considers creativity, critical thinking and problem-solving, initiative and perseverance, as well as the ability to take responsibility, and collaborate with others to plan and manage projects that have cultural, social, or financial value as its essence. So, even though it doesn't work directly with Entrecomp (Bacigalupo et al., 2016), its conceptualization of entrepreneurship competence is very similar.

The remaining three studies (Rachwał et al., 2016; Mannathoko, 2020; Marinič, & Válek, 2018) completely disregard the existence of this competency framework and define entrepreneurial competence based on older documents. The Polish study (Rachwał et al., 2016) comes close to the broad concept of EntreComp, conceptualizing entrepreneurial competence based on criteria developed within the European research project Fifobi, which defines economic knowledge, business knowledge, social competencies, and personality competencies associated with entrepreneurial attitude as the content of entrepreneurial competence. Similarly, the study based on Bonnestetter's (2012) philosophy of entrepreneurship by Mannathoko (2020) specifies competence, identifying some of the traits that shape

entrepreneurs: personal qualities, interpersonal skills, critical and creative thinking, and practical skills.

Completely different from the two streams described above is the Czech research (Marinič, & Válek, 2018), which specifies entrepreneurship according to international surveys like the Global Entrepreneurship Monitor (GEM) or the Global Entrepreneurship Development Index (GEDI). Both studies view entrepreneurship competence as a set of factors influencing individuals, focusing on two main perspectives. If entrepreneurship is considered the only way to make a living, it is understood as a motivation driven by necessity. If a potential entrepreneur perceives entrepreneurship as a certain type of reward, the motivational influence is the opposite and is described as opportunity-driven. The content of entrepreneurial education is then considered the idea of increasing students' ability to become entrepreneurs or owners of newly established businesses. In this conceptual delineation, we can observe a narrowing of entrepreneurship competence in the field of business in the sense of conducting business (focused on financial gain).

Q2: What research objectives do the authors of the selected studies set?

In research related to entrepreneurship competence, it is characteristic to aim for diagnosing the achieved level of competence in the studied individuals. Using the EntreComp model (2016), two of the analyzed studies target the diagnosis and identification of the educational needs of students (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021). One study (Morselli & Gorenc, 2021) does not explicitly set mapping the level of achieved competence as a research objective, but due to the nature of the research intent, it must also evaluate the competencies achieved by students. These two studies seek to verify the extent to which the proposed tool (modified EntreComp model) can be used to assess entrepreneurial competencies and evaluate the results of students after completing an educational program, which was theoretically assumed to develop competence in entrepreneurship (Morselli & Gorenc, 2021). Another study (Czyzewska et al., 2020) in this group focused on diagnosing competencies that go beyond diagnosis and also focuses on identifying the level of achieved competence in different groups of students based on their gender, financial status, and professional situation. Based on this, the study aims to find out how different groups differ in competency levels, respectively, which competencies need to be strengthened in specific groups of students, and conversely, which can be developed collectively across groups.

Another trend in research on entrepreneurship competence is its identification and mapping in national curricula. Three out of seven studies follow this direction (Mannathoko, 2020; Marinič & Válek, 2018; Rachwał et al., 2016), differing in which level of curriculum they focus on (Janík et al. 2011). In the analyzed studies, we find research on curriculum intended, implemented, achieved, or transformed between these levels. These three studies examine the curriculum design process and, based on the analysis, aim to present suggestions for its improvement. In all three researches, the focus is on mapping the current state and conception of entrepreneurship competence in the national curriculum as a whole, i.e., across various educational areas. In one case (Rachwał et al., 2016), the main goal, however, is to identify changes in entrepreneurship education after the reform of the Polish education system in 1999, and in the other case (Marinič & Válek, 2018), the primary aim is to present a possible way of

transforming the Czech RVP (curricular document on state level) into ŠVP (curricular document on school level). Therefore, this study also aims to analyze the RVP for secondary schools and compare the handling of competencies in the curriculum with the definition of competence according to the surveys of the Global Entrepreneurship Monitor (GEM) or the Global Entrepreneurship Development Index (GEDI). The main goal of the study is to identify the extent of compatibility in the definitions of both documents and the extent of incorporation of the business theme (in this case viewed through the lens of financial literacy) into the RVP for secondary schools.

The study by Mannathoko (2020) differs from those described above in that it examines only a selected part of the curriculum - artistic subjects. The study is guided by questions such as: To what extent do the artistic curricula of primary and lower secondary education influence students' entrepreneurial skills? How well do teachers incorporate business content and impart business skills prescribed by principles and curricula to students during art education and learning? To what extent are students in visual and performing arts prepared for entrepreneurship in primary education? To what extent do primary and lower secondary schools collaborate with practicing artists and/or artistic entrepreneurs in working with students to help them develop their practical and entrepreneurial skills? Based on the research questions, we can summarize that, unlike other studies, this study is the only one that aims for a comprehensive understanding of entrepreneurship competence by examining the relationships between all actors and levels of the curriculum.

Among the remaining two studies (Lilleväli & Täks, 2017; Pepin, 2018), we can find a similarity in the general focus on understanding and processing the concept of entrepreneurship competence. The first study (Lilleväli et al., 2017) aims to understand how systematic competence development at all levels of education is conceptualized in various models of entrepreneurship education competence. Specifically, in five different models, it examines the goals, definitions, and content of this competence, as well as the overall approach to creating models. Furthermore, the study aims to characterize how competence models relate to specific educational contexts or how and when they expect competencies to grow in different educational systems and at different levels of education. In other words, this work examines which critical aspects need to be taken into account when creating systematic competence models for entrepreneurship education.

The last study (Pepin, 2018) stands out in its focus on all the research trends described above, as it delves into the conceptualization and understanding of entrepreneurship competence in the context of national education. This study at the level of the designed curriculum does not map competence as previous works do but only attempts to conceptualize and understand this competence in the context of national education. Therefore, it raises the question: What does it mean to learn to "be entrepreneurial" in school?

Q3: What research samples and methods do the authors of the selected studies use?

To characterize the analyzed studies in terms of their research sample, we can divide them into three groups: studies researching students (Pepin, 2018; Mannathoko, 2020; Morselli & Gorenc, 2021; Czyzewska & Mroczek, 2020); studies examining curriculum documents

(Rachwal et al., 2016; Marinič & Válek, 2018), and studies whose research subject is competency models (Lilleväli & Täks, 2017).

In the first group, variously sized student samples ranging from 19 to 653 are used. The selection is not predominantly explicitly justified, but it can be inferred from the texts of the studies that it involves a random selection of schools, grades (programs), and students. If the selection is influenced by any criterion, it is either the implementation of a specific entrepreneurship program at a given school, the geographical location of schools, or the focus of the research on a specific age level of students. In two studies (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021) that focus on high school and university students, the number of respondents is significantly higher (40, 290) compared to two research samples (Pepin, 2018; Mannathoko, 2020) targeting elementary school levels (19, 20). For research at elementary schools (Pepin, 2018; Mannathoko, 2020), it is specific that teachers of students are also included in the research sample.

In studies conducted at the university level (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021), the questionnaire method is used for data collection. In all three cases, it involves a questionnaire based on the EntreComp framework, which is modified in some way. The modification in two cases (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021) consists of adding additional open-ended questions to the set of original closed-ended questions. The purpose of this modification is to understand the broader contexts of the evaluated programs (e.g., finding out what students disliked and liked about the course, whether a similar course should be designed for future generations of students, etc.). In both cases, it involves the collection of data that are subjective assessments by students.

The situation is different for studies focused on the elementary school level (Pepin, 2018; Mannathoko, 2020). Firstly, all studies apply the qualitative method of case study (in one case, it involves multiple cases). Secondly, they apply a range of other data collection methods, such as participant observation, informal and structured interviews with students and teachers (both individual and group), questionnaires, video recordings from classes, curriculum documents, teachers' diaries, notes on lesson plans, and field notes from teachers and researchers.

For data analysis in studies conducted at the university level, various approaches are used. In one case (Czyzewska & Mroczek, 2020), the "Rule induction method" is used to create three separate datasets (decision tables) for three different categories of respondents (gender, financial status, and professional situation). In the data analysis, relationships between entrepreneurship competence and metric questions (i.e., gender, financial status, and professional situation) are identified among the respondents' responses and the established categories using sets of rules. The second study (Morselli & Gorenc, 2021) employs an integrative approach of formative data analysis in the research process (Ravitch & Carl, 2019). This involves integrating various data sources to find possible connections, embedding data into related theories, and repeating a flexible and collaborative process.

This method acknowledges that the overall framework for data analysis is systematic and intentional, but also emerging and creative due to the gradually emerging conceptual

framework. The methods of data analysis in studies conducted at elementary schools are considerably simpler compared to the above-mentioned research. Content analysis of curriculum documents, interviews, and other records prevail, which are analyzed in the context of research questions. Only one study (Pepin, 2018) uses John Dewey's (1938) theory of inquiry as a theoretical tool for data analysis. It views the data collected during the implementation of the school business project as a series of uncertain situations that required a group of students to conduct repeated investigations. Methodologically, eight inquiry processes were considered mini-cases within the case. They were analyzed separately but from the same analytical perspective: (a) what can be learned from each inquiry process to document how to learn to do business, and (b) what can be learned from each inquiry process to document learning through doing.

The second group of studies (Rachwał et al., 2016; Marinič & Válek, 2018) primarily focused on the analysis of curriculum documents. In both cases, they use content analysis of text and compare them with other base documents. However, Rachwał et al. (2016) and Marinič & Válek (2018) do not describe in detail the procedure or tools used to analyze curriculum documents.

The third group includes the study by Lilleväli & Täks (2017), which focuses on competency models. In this context, we do not talk about a research sample that includes individuals. Lilleväli & Täks (2017) worked with 5 existing competency models, which are compared with each other. The criteria for selecting the analyzed models were as follows: the competency models must represent a form of entrepreneurship competence development at various levels; a certain form of gradual competence development must be demonstrated; the capability model must be designed at a national or regional level; the competency model must significantly contribute to the current understanding of systematic entrepreneurship education.

The analysis of the five models was then conducted with research questions, and the method varied for answering each of them. The authors used a comparative analysis method to compare the goals, definitions, and approaches to constructing entrepreneurship competence in the five competency models. They also examined the background of competency models to understand the educational contexts for which the models were constructed. This primarily involved observing various aspects of the educational context, such as whether the models were created in existing parts of the education system, who the models were adapted for, and how different aspects might influence their usability in specific contexts. The researchers also compared how the models set out the gradual development of competence by seeking answers to how and with what timeline progression is described in the models. Finally, all models were compared with LeDeist & Winterton's (2005) classification of four dimensions of competencies to identify what all models have in common and what specific components makeup entrepreneurship competence in each model.

Discussion and conclusion

The results of the overview study highlight three main areas of findings in the analyzed studies: identification and validation of competency models in practice; mapping the process of

developing entrepreneurial competence in school practice; and the role of entrepreneurial competence in curriculum documents.

The analysis of competency models revealed their applicability in various contexts, with EntreComp focusing on the educational environment, while other models have more specific target groups (Czyzewska & Mroczek, 2020; Morselli & Gorenc, 2021). However, these models share a comprehensive structure of entrepreneurial competence, encompassing more than just an economic perspective on entrepreneurship (Lilleväli & Täks, 2017). The studies also indicate that the EntreComp model requires modifications to more precisely anchor selected soft skills, such as presentation skills (Morselli & Gorenc, 2021). The research often points out insufficient application and testing of competency models in practice and recommends further validation to obtain feedback from practitioners and end-users (Lilleväli & Täks, 2017).

The results of the research show that effective development of entrepreneurial competence is possible through various methods and educational programs, which share a foundation in experiential and problem-based learning as well as inquiry-based pedagogy (Morselli & Gorenc, 2021; Pepin, 2018). These methods lead to the development of teamwork, and experiential learning, and utilize the educational potential of real-life situations. Pinho et al. (2019) state that, thanks to these methods, students deeply developed personal and social competencies crucial for their personality development, such as increased motivation to learn; respect for colleagues; taking responsibility for tasks to be performed; and deepening knowledge and skills in problem-solving.

The selected studies emphasize the importance of the teacher's role in the process of developing entrepreneurial competence. Striking the right balance between guiding and supporting students is key to effectively engaging students in entrepreneurial education (Pepin, 2018). Mannathoko (2020) pointed out possible causes of insufficient development of entrepreneurial competence in teaching, and one of them was the inadequate preparation and awareness of teachers about possible entrepreneurship development (they did not encounter entrepreneurship development in their professional training); the second cause was the lack of effective collaboration with experts from the field, who could convey their experiences from various educational areas to students and serve as models of entrepreneurial individuals. The final area concerns the inclusion of entrepreneurial competence in curriculum documents. Entrepreneurial competence is often not explicitly named in curriculum documents or is defined very broadly at the level of the national curriculum, subsequently causing inadequate implementation of entrepreneurship in the curriculum (Marinič & Válek, 2018).

The research results indicate a significant disorder in the definitions and implementation of this competence into education, often focusing only on the economic aspect and neglecting other skills or competencies (Marinič & Válek, 2018). This lack of a clear foundation for entrepreneurship education may hurt the future development of students (Rachwał et al., 2016). Authors' opinions diverge on how to approach entrepreneurship in the curriculum. On one hand, authors find it insufficient if the curriculum lacks a separate subject focused on entrepreneurship, which should be given sufficient space at all levels of education within

educational areas (Rachwał et al., 2016); on the other hand, they recommend including entrepreneurial competence more as a cross-cutting theme or implementing its parts into various subjects, rather than narrowing it down to a single educational area (Marinič & Válek, 2018).

Overall, the study results demonstrate diverse perspectives and approaches to the development of entrepreneurial competence, emphasizing the importance of a comprehensive structure of this competence and the need for its inclusion in various educational contexts (Czyżewska & Mroczek, 2020; Lilleväli & Täks, 2017; Marinič & Válek, 2018; Morselli & Gorenc, 2021; Pepin, 2018).

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References

Bacigalupo, M., Kampylis, P., Punie, Y. & Van den Brande, G. (2016). *EntreComp: The Entrepreneurship Competence Framework*. Luxembourg: Publication Office of the European Union; EUR 27939 EN; doi:10.2791/593884

Banha, F.; Coelho, L. S. & Flores, A. (2022) Entrepreneurship Education: A Systematic Literature Review and Identification of an Existing Gap in the Field. *Educ. Sci.* 12,336. <https://doi.org/10.3390/educsci12050336>

Bonnestetter, B. J. (2012). The skills that make an entrepreneur. Harvard Business. Consortium for Entrepreneurship Education (2004) The National Content Standards for Entrepreneurship Education. Columbus, Ohio.

Cooper, A. (2005) Entrepreneurship: The Past, the Present, the Future. In *Handbook of Entrepreneurship Research*; Springer: Berlin/Heidelberg, Germany.)

Czyżewska, M., & Mroczek, T. (2020). *Data Mining in Entrepreneurial Competencies Diagnosis*. *Education Sciences*, 10(8), 196. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/educsci10080196>

Dewey, J. (1938). *Logic: The Theory of Inquiry*. New York: Henry Holt and Company. Duval-Couetil, N. (2013). Assessing the Impact of Entrepreneurship Education Programs: Challenges and Approaches. *Journal of Small Business Management*, 394–409.

European Commission. (2006) *Entrepreneurship Education in Europe: Fostering Entrepreneurial Mindsets through Education and Learning*. European Union: Oslo, Norway Eurydice (2002). *Key Competencies. A developing concept in general compulsory education*. <http://www.edmide.gr/KEIMENA%20E.U/key%20competences%20Europe.pdf>

Gibb, A. (2008) Entrepreneurship and enterprise education in schools and colleges: insights from UK. *International Journal of Entrepreneurship Education*, vol. 6, pp. 101–144, Senate Hall Academic Publishing.

Hisrich, R. D. & Peters, M. P. (1995). *Entrepreneurship: Starting, Developing and Managing a new enterprise*. Irwin/McGraw-Hill.

Janík, T, Knecht, P., & Solnička, S. (2011). *Kurikulání reforma na gymnáziích: rozhovory s koordinátory [Curricular reform on high schools: interviews with coordinators]*. In T. Janík, P. Knecht, & S. Šebestová (Eds.), *Směšený design v pedagogickém výzkumu: Sborník příspěvků z 19. výroční konference České asociace pedagogického výzkumu* (s. 7–16). Brno: Masarykova univerzita.

Jardim, J. (2021) Entrepreneurial skills to be successful in the global and digital world: Proposal for a frame of reference for entrepreneurial education. *Educ. Sci.11*, 356.

Jardim, J., Bártolo, A., Pinho, A. Towards & Global Entrepreneurial Culture (2021): A Systematic Review of the Effectiveness of Entrepreneurship Education Programs. *Educ. Sci. 11*, 398. <https://doi.org/10.3390/educsci11080398>

Kamovich, U. & Foss, L. (2017). In Search of Alignment: A Review of Impact Studies in Entrepreneurship Education. *Education Research International*, 1–15.

Le Deist, F. D. & Winterton, J. (2005) *What is competence?* *Human Resource Development International*, 8 (1), pp. 27–46.

Lilleväli, U., & Täks, M. (2017). *Competence Models as a Tool for Conceptualizing the Systematic Process of Entrepreneurship Competence Development*. *Education Research International*, 2017, 1-16.

Mannathoko, M. Ch. (2020) *Bringing Entrepreneurship into Visual Arts and Music Classrooms: An Evaluation of Basic Education Arts Curriculum Implementation Strategies*. *Teaching Artist Journal*, 18:3-4, 121-134, DOI: [10.1080/15411796.2020.1851134](https://doi.org/10.1080/15411796.2020.1851134)

Mareš, J. (2013). *Přehledové studie: jejich typologie, funkce a způsob vytváření [Systematic review: Its typology, functions and writing]*. *Pedagogická orientace*, 23 (4), p. 427–454.

Marinič, P. & Válek, J. (2018) *Transformation of the Framework Education Programme to the School Education Programme with the Focus on Education of Economic Subjects in Czech Republic*. In *INTED2018 Proceedings; 12th International Technology, Education and Development Conference (INTED)*. 1st ed. Valenica: IATED-INT Assoc Technology Education & Development, p. 5503-5508. ISBN 978-84-697-9480-7. doi:10.21125/inted.2018.1301.

McCallum, E., McMullan, L., Weicht, R. & Kluzer, S. (2020). *EntreComp at Work. The European Entrepreneurship Competence Framework in action in the labour market: a*

selection of case studies. (M. Bacigalupo Ed.), EUR 30228 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-19002-8, doi:10.2760/673856, JRC120486

McCallum, E., Weicht, R., McMullan, L. & Price A. (2018). *EntreComp into Action: get inspired, make it happen* (M. Bacigalupo & W. O’Keeffe Eds.), EUR 29105 EN, Publications Office of the European Union, Luxembourg, 2018. ISBN 978-92-79-79360- 8, doi:10.2760/574864, JRC109128

Morselli, D., & Gorenc, J. (2021). *Using the EntreComp framework to evaluate two entrepreneurship education courses based on the Korda Method.* *The International Journal of Management Education.* 20(1).

Pepin, M. (2012). *Enterprise education: A deweyan perspective.* *Education and Training,* 54 (8) (2012), pp. 801-812, [10.1108/00400911211274891](https://doi.org/10.1108/00400911211274891)

Pepin, M. (2018). *Learning to be enterprising in school through an inquiry-based pedagogy.* *Industry and Higher Education,* 32, 418 - 429.

Pinho, M., Fernandes, D., Serrão, C. & Mascarenhas, D. (2019). *Youth Start Social Entrepreneurship Program for Kids: Portuguese UKIDS-Case Study.* *Discourse and Communication for Sustainable Education,* 10(2) 33-48. <https://doi.org/10.2478/dcse-2019-0016>

Rachwał, T., Kurek, S., & Boguś, M. (2016). *Entrepreneurship Education at Secondary Level in Transition Economies: A Case of Poland.* *Entrepreneurial Business and Economics Review,* 4(1), 61-81, DOI: <http://dx.doi.org/10.15678/EBER.2016.040105>

Rasmussen, A. & Fritzner, A. (2016) *From Dream to Reality. Learning Outcomes and Didactic Principles for Teaching Entrepreneurship in Nordic Schools,* Nordic Council of Ministers.

Rasmussen, A., Moberg, K., & Revsbech, C. (2015). *A Taxonomy of Entrepreneurship Education: Perspectives on Goals, Teaching and Evaluation,* The Danish Foundation for Entrepreneurship.

Ravitch, S. M. & Carl, N. M. (2019) *Qualitative research: Bridging the conceptual, theoretical, and methodological.* Sage Publications.

Rideout, E. C. & Gray, D. O. (2013). *Does Entrepreneurship Education Really Work? A Review and Methodological Critique of the Empirical Literature on the Effects of University-Based Entrepreneurship Education.* *Journal of Small Business Management,* 329–351.

3. EXAMINING STUDENTS' SELF-ASSESSMENT CONCERNING THEIR WRITING SKILLS DEVELOPMENT IN SECOND LANGUAGE LEARNING

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Abstract

Our long teaching experience including that during the period of pandemic, our special field of research interest (self-assessment) and the theoretical implications related to self-regulation made us search for an effective tool and method to develop our students' self-regulated learning in English as a second language in order to prepare them for life-long learning. Not only have we applied self-assessment as a method but also we decided to describe the whole process of the investigation to detect trends and changes in the ninth-grade students' self-assessment throughout an academic year.

In the action research, we rely on the rich scientific literature base providing a wide spectrum of researches dealing with the interrelations between self-assessment, self-efficacy and teacher's assessment promoting self-regulation.

The results are based on the quantitative analysis of data gained from the students' self-assessment forms filled in six times during the school year. The data analysis includes descriptive and mathematical statistical tests.

The results show complex interrelations among students' self-assessment, self-efficacy and the teacher's assessment with different accents. The results also show that there may be students in classes who are not able to assess themselves properly. In those cases, the teacher must pay more attention to the criteria clarification and provide a wide-scale feedback to students' performance.

With the help of this action research, we had an opportunity to have a deeper understanding of complex processes of pedagogical assessment contributing to the development of teachers' assessment culture not only in our school but also in schools in general.

Key words: *self-regulated learning, self-assessment, second language learning, writing skills*

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Introduction

Having a double professional identity (being a secondary school teacher and a teacher educator), we have always been seeking for possible ways to link teaching practice to theory. In this study, we present the results of the first phase of a teacher researcher programme with the purpose of showing the academic world and our future teacher students that theory and practice can go hand in hand and not separated from each other.

Supporting the rationale of this study, we have to mention a great number of strategical documents in the European Union, which emphasize the importance of self-regulated learning

(European Commission, 1995; European Commission, 2000; European Commission, 2003, OECD, 2021). Parallel to this, the National Curriculum in Hungary (NAT, 2020: 315) also points out that development of self-regulated learning and sustainable development of skills related to „live” foreign languages are very important issues in the Hungarian education system. During and after the pandemic, a lot of researches were conducted drawing the conclusion that it is crucial to be a self-regulated learner in special situations when students are left alone as far as learning is concerned (McNulty & Baird, 2020; Molnár & Dudok, 2021; Antal & Trásy, 2021; Tóth et al., 2021). Finally, we should mention the great number of former researches focusing on self-assessment, self-efficacy and self-regulated learning. All these points and our special field of scientific interest, which is self-assessment, made us investigate the ninth-grade students’ self-assessment during an academic year on the domain of English language writing skills development as the main actor of their self-regulated learning. First, we discuss the relevant literature dealing with self-regulated learning, self-assessment and self-efficacy. Then, we introduce our research questions, the research paradigm and methods used to give proper answers to the research questions. After that, we present the results of our investigation and finally, draw the conclusions, which orienteer us to continue the research using up implications and make teachers and future teachers aware of the fact that inquiry-based teaching adds a lot to the quality of teaching.

Literature review

The theoretical frame of our research is based on three pillars: self-regulated learning, self-assessment and self-efficacy perception.

The concept of self-regulated learning is explained in many different approaches (Zimmerman & Martinez Pons, 1988, p. 24; McCombs & Marzano, 1990, p. 53; Panadero, 2017). Relying on definitions worked out by the researchers Self-regulated learning is a complex system of cognitive, motivational and metacognitive regulatory processes in which the students regulate their own learning processes from setting goals through making plans, realizing plans, and assessing their learning outcomes and the learning process as well.

Panadero (2017) analysed six models of Self-regulated learning:

- Zimmerman’s Socio-cognitive Perspective of Self-regulated learning Grounded by Three Models,
- Boekaerts’ Different Goal Roadmaps (Top–Down/Bottom–Up) and the Role of Emotions,
- Winne and Hadwin’s Exploring Self-regulated learning from a Metacognitive Perspective,
- Pintrich’s Grounding the Field and Emphasizing the Role of Motivation in Self-regulated learning,
- Efklides’ The Missing Piece between Metacognition and Self-regulated learning,
- Hadwin, Järvelä, and Miller’s Self-regulated learning in the Context of Collaborative Learning.

All these models have a common feature. They identify three main phases within self-regulation:

- a preparatory phase, which includes task analysis, planning, activation of goals, and setting goals;
- a performance phase, in which the actual task is done while monitoring and controlling the progress of performance; and
- an appraisal phase, in which the student reflects, regulates, and adapts for future performances.

We accept Panadero's point of view according to which in these models self-regulated learning is an open process. The phases cannot be separated clear-cut and self-regulated learning is a cyclical process, composed of different phases and sub processes. The phases are interrelated (Panadero, 2017).

Self-assessment is an essential part and one of the sub processes of self-regulated learning. It is closely connected to feedback, the appraisal phase. If we examine the evolution of the notion of self-assessment, we can see that first it was described as a special type of knowledge and beliefs (Boud, 1995) with the help of which the student is able to assess their knowledge. According to Black & Wiliam, (1998); Andrade & Boutlay, (2003); Noonan & Randy, (2005); Panadero, Brown & Courtney, (2014) self-assessment is a method of formative assessment when learners form criteria and compare their achievement to the criteria. In scientific literature, self-assessment is also identified as a function unifying the two previous approaches (Alonso-Tapia & Panadero, 2013. p. 63) and saying that this function is realized by monitoring (self-reflection) and self-evaluation (making a judgement). Self-reflection and self-evaluation are the two main components of self-assessment and they promote self-regulation (Athanasou, 2005, p. 292; Panadero, Brown & Strijbos, 2016, p. 3.). In our research context, we use this approach.

There is a great number of researches dealing with the connections between self-assessment and self-regulated learning. The results support the idea that development of self-regulated skills contributes to better learning achievements (Brown & Harris, 2013; Panadero, Alonso-Tapia & Huertas, 2012; Ramdass & Zimmerman, 2008). Other researches emphasize the mutual developing effect between self-assessment and self-regulation (Lan, 1998; Kostons, Van Gog, & Paas, 2012; Panadero, Jonsson & Strijbos, 2016). Some researches focus on the relationship of self-assessment skills with task-related self-efficacy, not all of them having proved their strong positive relationship (Olina & Sullivan, 2004; Rammdas & Zimmerman, 2008; Andrade et al., 2009). The meta-analysis conducted by Panadero (2017) justified the positive effect of self-assessment on self-regulated learning and self-efficacy. Finally, we have to mention researches examining the role of students' self-assessment in supporting other forms of assessment that are making students aware of their own learning self-regulated learning strategies (Black & Wiliam, 1998; Nicol & McFarlane-Dick, 2006; Tan, 2012; Taras, 2010). The researches resulting in methodological implications construct another group of investigations. They point out the role of feedback in self-regulated learning (Black & William, 1998), give the criteria of a good feedback (Nicol & McFarlane-Dick; 2006), describe a theoretical approach to the role of formative assessment in self-regulated learning (Clark, 2012), or the role of students' active involvement in self- and peer-assessment opposing

methods applied by teachers (Panadero, Jonsson & Strijbos, 2016). Some practical instructions to effective use of self-assessment in learning and teaching (Andrade & Valtcheva, 2009; Ross, 2006; Wong, 2022) have been also introduced. The role of former positive experiences related to self-regulated learning and identifying the advantages of self-assessment such as identifying errors, correcting errors, development of learning skills are also named as key elements in the effective application of self-assessment (Panadero; 2011) and have also been mentioned in the scientific literature.

The notion of self-efficacy perception being the third pillar of our theoretical frame is related to Albert Bandura according to whom it is an individual's belief in their capacity to execute behaviours necessary to produce specific performance attainments (Bandura, 1994, 1986, 1997). Self-efficacy perception is one of the most important motivating agents in self-regulated learning.

The researches related to self-efficacy perception can be classified into two groups. On the one hand, some studies are about the results confirming that self-efficacy perception plays a crucial role in supporting better learning achievements (Bong & Skaalvik, 2003; Nisbet et al., 2005; Wen & Johnson, 1997) in general, students with high self-efficacy beliefs are more committed to learning better (Turner et al., 2009; Molnár & Péter-Szarka, 2017; Olivier et al, 2019).

Within this group, there are researches about self-efficacy perception in the context of different subjects, proving that there are positive significant correlations between self-efficacy perception and learning outcomes in mathematics among secondary school students (Stevens et al., 2004), in mathematics among primary school students (House, 2006) and in English as a second language among student teachers (Wang et al. 2013).

Another group of examinations focuses on self-efficacy perception related to language learning strategies in listening comprehension (Graham, 2011), reading comprehension (Naseri & Zaferanieh, 2012; Tobing, 2013), speaking skills (Asakereh & Dehghannezhad, 2015, Desmalazia & Septiani, 2017), writing skills (William & Takaku, 2011), and learning achievement (Huang & Chang, 1996), motivation (Ersanli, 2015; Husain, 2014).

Considering all researches, we can see that the literature is rich but task specific investigations concentrating on the teaching practice and exploring interrelations among self-assessment, self-efficacy and teacher's assessment are rare. Our research's goal is to fill in this gap.

Research method

The focus of our research is examining students' self-assessment concerning their writing skills development in the field of learning English as a second language. The research goal is to examine the ninth-grade students' self-assessment development during an academic year. To gain a more detailed picture and to meet the research goal, we formed three research questions:

- How is students' self-assessment changing during an academic year on the domain of English language writing skills?
- How students' self-efficacy perceptions are changing during an academic year on the domain of English language writing skills?
- How are interrelations between students' self-assessment and teacher's assessment changing during an academic year on the domain of English language writing skills?

In order to answer the questions, we have been conducting an action research, that means that depending on the results of the first phase of the research we revise the whole research process

and make adjustments in order to receive the proper answers based on the most adequate research procedures. The first phase of the action research contained six blocks of self-assessment. The topics of the blocks were:

- Introducing somebody-describing a person,
- Describing a place,
- Describing motives of language learning,
- Informal letter giving news,
- Story writing, and
- Essay writing.

The research tool was an assessment sheet (Table 1), developed by the teacher researcher, containing the criteria of assessment developed together with the students. The assessment sheet contained four types of assessment:

- Pre-test by the students which measures the students' self-efficacy perception related to a specific task component,
- Students' self-assessment,
- Teacher's assessment, and
- Students' comments.

| Assessment sheet- Writing skills development (essay) | | | | |
|---|---|---|-----------------------------|-----------------|
| Criteria | Pretest before completing the task-scores | Self-assessment after doing the task-scores | Teacher's assessment-scores | My comments () |
| 1. Completing the task (I wrote an essay. I followed all (3) the guiding lines: max. 4p (I wrote an essay but I did not use up one guiding line: 3p (I wrote an essay but I did not use up 2 guiding lines: 2p (I did not write an essay- type text but I used up the guiding lines: 1p (I did not write an essay-type text and I did not use up the guiding lines:0p | | | | |

Table 1. Part of the assessment sheet with the criteria of Completing the task

The criteria of each type of assessment were:

- Completing the task,
- Structuring the text,
- Vocabulary, and
- Grammar in use.

These criteria are the same as the ones of Matura examination of writing tasks, which is based on The Common European Framework of Reference for Languages (Council of Europe, 2020) but scoring is based on the teacher's and students' mutual agreement.

The sample consisted of 15 ninth-grade students with 11 boys and 4 girls. The students study at a secondary school (in Hungarian this school type is called *gimnázium*), in one of the counties located in the Northeast of Hungary. The school is in the county centre. In the group, there are students of average skills. They have five English lessons a week.

Research results

The results are based on the analysis of data gained through our research tool (assessment sheet). We used SPSS statistics software to provide descriptive statistics, and to examine correlations between different variables of the Students' pre-test (Self-efficacy perception), Students' self-assessment and Teacher's assessment. Furthermore, we conducted multivariate linear regression to explore interrelations of different variables of three types of assessment, and cluster analysis to identify possible groups of students within the data set.

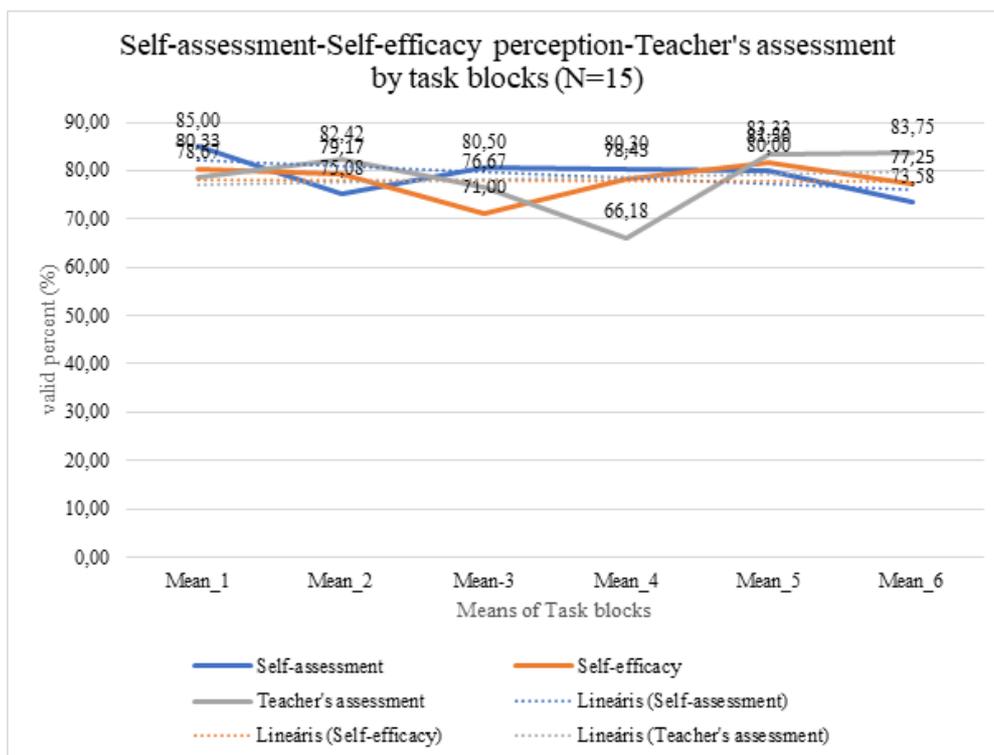


Figure 1. Self-assessment, Self-efficacy perception and Teacher's assessment during an academic year

Results based on descriptive statistics (Figure 1) show that both Self-assessment and Self-efficacy perceptions were slightly decreasing by the end of the academic year, while Teacher's assessment was slightly increasing.

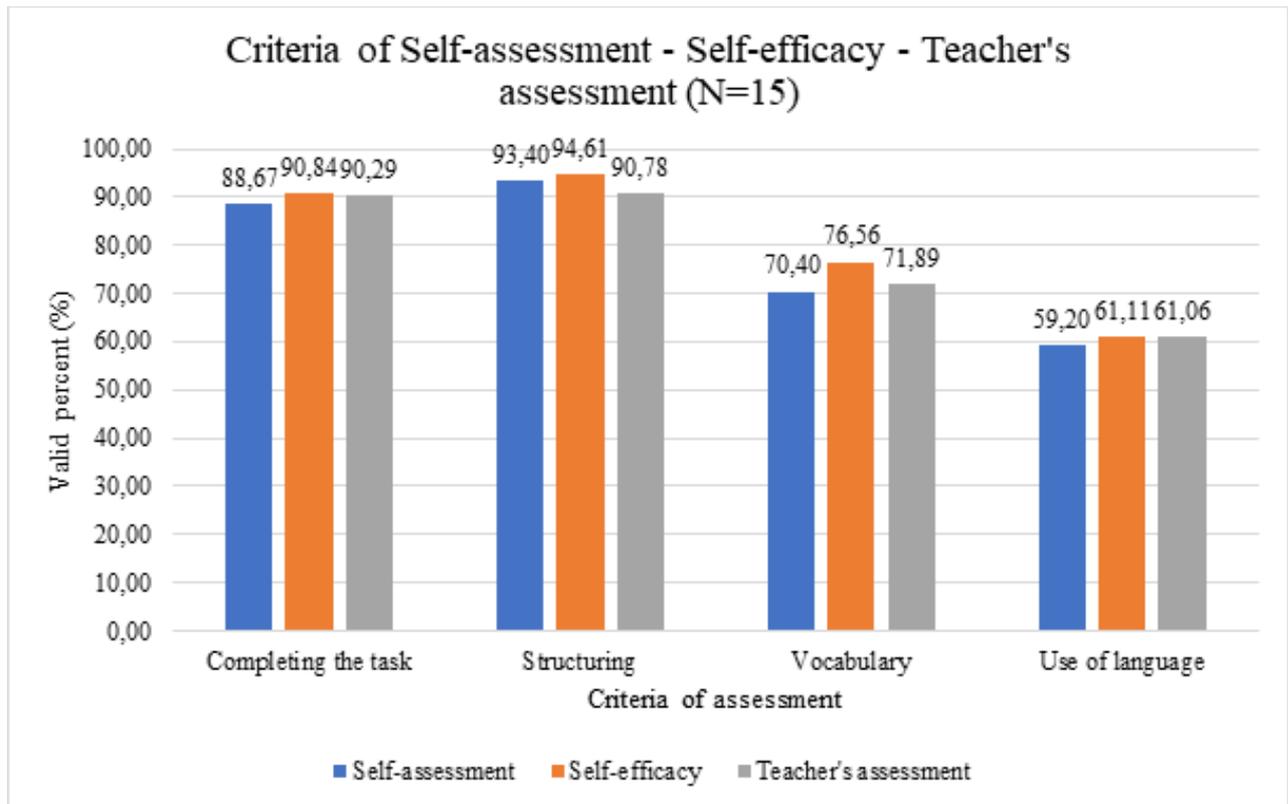


Figure 2. Criteria of Self-assessment, Self-efficacy and Teacher's assessment

Taking the static view of the criteria of the three types of assessment, we can conclude that students' Self-efficacy perception was the highest, Teacher's assessment was the second in order except for Structuring, and students' Self-assessment was the third except for structuring.

There were some significant positive correlations between the variables of Self-assessment and Teacher's assessment, the strongest appearing between Self-assessment (Completing the task) and the same variable of Teacher's assessment ($r=0.389$ $p < 0.05$). The biggest number of positive significant correlations of medium strength were shown between Self-assessment and Self-efficacy perception, the strongest appearing between the variable of Grammar in use in Self-assessment and the same variable of Self-efficacy perception ($r=0.705$ $p < 0,01$). It shows that the students look at their writing skills development through the lens of Grammar in use. If they experience development in the field of grammar, their Self-assessment and Self-efficacy perception will also increase. This result might show that the teachers emphasize the importance of applying grammar correctly in writing a piece of text. The fewest number of significant correlations appeared between the variables of Self-efficacy perception and the ones

of Teacher's assessment. Another interesting result is that the correlations were detected between the same variables of Self-assessment and Teacher's assessment, and the same criteria of Self-assessment and Self-efficacy perception, but it is not like that in the case of the variables of Self-efficacy perception and Teacher's assessment.

We conducted a multivariate linear regression analysis (Enter method) to measure the relationships between these multidimensional variables. We entered 11 variables of Self-efficacy perception, Self-assessment and Teacher's assessment, and identified 10 significant models ($p < 0.01$).



Figure 3. Interrelations among the variables of Self-assessment, Self-efficacy and Teacher's assessment

The Figure 3 shows the extent to which the entered variables explain Self-assessment, Self-efficacy perception and Teacher's assessment. The interrelations on the axis of Self-assessment and Self-efficacy perception are more frequent and stronger than on the axis of Self-assessment and Teacher's assessment. There were no interrelations detected on the axis of Self-efficacy perception and Teacher's assessment in the models. The width of the arrows is also important, because they show the strength of the interrelations. We can conclude that the most intensive relationships appear between Self-assessment and Self-efficacy perception and the impact of Self-assessment on Self-efficacy perception is stronger than in the other direction. It underlines the role of Self-assessment in self-regulated learning.

| Ward Method | Self-efficacy_Task completing | Self-efficacy_Structuring | Self-efficacy_Vocabulary | Self-efficacy_Grammar in use | Self-assessment_Task completing | Self-assessment_Structuring | Self-assessment_Vocabulary | Self-assessment_Grammar in use | Teacher's assessment_Task completing | Teacher's assessment_Structuring | Teacher's assessment_Vocabulary | Teacher's assessment_Grammar in use |
|----------------|-------------------------------|---------------------------|--------------------------|------------------------------|---------------------------------|-----------------------------|----------------------------|--------------------------------|--------------------------------------|----------------------------------|---------------------------------|-------------------------------------|
| 1 Mean | 94.17 | 96.83 | 82.76 | 65.33 | 95.57 | 97.50 | 78.24 | 65.84 | 93.75 | 94.48 | 77.41 | 68.75 |
| N | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Std. Deviation | 6.574 | 4.957 | 7.922 | 13.072 | 4.120 | 3.447 | 9.431 | 10.941 | 6.327 | 6.721 | 9.261 | 7.322 |
| 2 Mean | 77.83 | 78.33 | 51.67 | 46.67 | 69.50 | 82.50 | 80.00 | 80.00 | 68.00 | 85.17 | 44.17 | 45.00 |
| N | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Std. Deviation | | | | | | | | | | | | |
| 3 Mean | 85.79 | 93.13 | 67.29 | 54.16 | 80.92 | 87.92 | 52.75 | 43.75 | 87.21 | 82.92 | 65.00 | 45.84 |
| N | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Std. Deviation | 14.508 | 11.145 | 8.260 | 8.768 | 15.304 | 9.391 | 7.577 | 3.941 | 9.237 | 7.280 | 7.201 | 5.403 |
| T Mean | 90.84 | 94.61 | 76.56 | 61.11 | 89.92 | 93.94 | 71.56 | 60.89 | 90.29 | 90.78 | 71.89 | 61.06 |
| otal N | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Std. Deviation | 10.008 | 8.093 | 12.297 | 12.953 | 11.697 | 7.437 | 14.404 | 14.415 | 9.527 | 8.373 | 12.509 | 12.946 |

Table 2. Cluster analysis

We conducted cluster analysis to explore naturally occurring groups within the data set. We used Hierarchical cluster analysis with Wards method. In the table (Table 2), we can see three clusters which we named Realistic group 1. (First cluster), Unrealistic group (Second cluster) and Realistic group 2 (Third cluster). In Realistic group 1, the students (N=10) have a high level of Self-assessment and Self-efficacy perception, and Self-assessment is slightly higher than Self-efficacy perception. Comparing the students' Self-assessment to the Teacher's assessment, we can see that they overlap each other. In Realistic group 2 (N=4), Self-assessment and Self-efficacy perception are also high but slightly lower than in Realistic group 1. In this group, the students' Self-efficacy perception is slightly higher than their Self-assessment, and the Teacher's assessment, similarly to the first group, overlaps Self-assessment. In Unrealistic group, which includes only one student, Self-efficacy perception and Self-assessment are much lower than in the case of the previous two groups, and there is a wide gap between Self-assessment and Teacher's assessment. The student assessed their achievements at a higher level than the teacher did. This group, even if it includes only one student (in other groups there can be more similar students), needs more attention from the teacher in order to close the gap between Self-assessment and Teacher's assessment. The way to bring students' Self-assessment and Teacher's assessment closer can be to make the student/students more aware of the criteria of assessment, on the one hand, and to find more motivating contents in the field of writing skills development, on the other hand.

Discussion and conclusions

In this study, we presented the results of the first phase of an action research, which is being conducted within a frame of a teacher researcher programme. The research questions orientated us to explore the trends of our students' Self-assessment and Self-efficacy perception in the field of English writing skills development. Self-assessment was conducted throughout an academic year on a regular basis with the help of an assessment sheet developed by both the teacher and the students. The results of the action research show that both students' Self-assessment and Self-efficacy perception were slightly decreasing by the end of the year. It can be explained by the students' age. Being a teenager is a very sensitive period of life with a lot of uncertainties. This aspect requires further research of psychological characteristics. On the other hand, the cause of the decrease can be the fact that the research was conducted in the first year of the students' secondary school studies. They came from different primary schools; therefore, meeting a new learning environment, new requirements, new teachers and new classmates can play their roles in the decline of Self-assessment and Self-efficacy perception. It has an implication that not only early childhood transitions require more attention and deeper understanding from teachers, but also, transitions from primary to secondary school deserve consideration.

The results of multivariate linear regression justified the results of former research results according to which Self-assessment and Self-efficacy beliefs have strong positive impact on each other (Olina & Sullivan, 2004; Ramdass & Zimmerman, 2008; Andrade & Valtcheva, 2009). Our results point out a stronger impact of Self-assessment on Self-efficacy than that of Self-efficacy on Self-assessment, which underlines the role of Self-assessment in Self-regulated learning.

The cluster analysis showed that there might be students in any class whose Self-assessment and the Teacher's assessment do not match. It gives further tasks to teachers as for the learning-teaching process, e. g. focusing on more effective methods of supporting students' self-regulated learning.

The limitation of this investigation is a small number of the sample but as we have been conducting a longitudinal study, a more complex and valid picture of development of Self-assessment and self-regulated learning skills can be depicted with the help of our results.

As for the future prospects of the action research, it will be extended to the field of speaking skills development the following year, and we will present the results of analysing the comments made by the students in a future research paper. As we teach not only secondary-school students, but we also play an active role as teachers' trainers, the current results being introduced to pre-service teachers can add to their understanding of the importance of supporting self-regulated learning and providing exact tips on how to do that in their everyday teaching practice.

List of references:

- Alonso-Tapia, J. c Panadero, E. (2013). Self assessment: Theoretical and Practical Connotations. When it happens, How is it Acquired and what to do to Develop it in our Students. *Electronic Journal of Research in Educational Psychology*, 11(2), 551–576.

- Andrade, H. & Boulay, B. (2003). Gender and the role of rubric-referenced selfassessment in learning to write. *Journal of Educational Research*, 97, 21–34.
- Andrade, H., & Valtcheva, A. (2009). Promoting learning and achievement through self-assessment. *Theory Into Practice*, 48(1), 12–19.
- Andrade, H. Wang, X. L., Du, Y. & Akawi, R. L. (2009). Rubric-referenced self-assessment and self-efficacy for writing. *Journal of Educational Research*, 102 (4), 287-301.
- Antal, I. & Trásy, L. (2021). Magas roma arányú, hátrányos helyzetű iskolák diákjainak vizsgálata az otthoni tanulás szempontjából. In: Molnár, Gy., Tóth, E. (szerk.) (2021). *A neveléstudomány válaszai a jövő kihívásaira. Program Előadás-összefoglalók*. MTA Pedagógiai Tudományos Bizottsága SZTE Neveléstudományi Intézet. p. 45.
- Asakereh, A. & Dehghannezhad, M. (2015). Student satisfaction with EFL speaking classes: Relating speaking self-efficacy and skill achievement. *Issues in Educational Research*, 25(4), 345-363.
- Athanasou, J. A. (2005). Self-evaluations in adult education and training. *Australian Journal of Adult Learning*, 3/45, 291–303. Retrieved from: <http://files.eric.ed.gov/fulltext/EJ797616.pdf>. 2023.09.11.
- Bandura, A. (1994). Social cognitive theory of mass communication. In: Bryant, J., Zillmann, D. (szerk.), *Media effects: Advances in theory and research* (pp. 61–90). Lawrence Erlbaum Associates, Inc.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, Prentice-Hall, Inc.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 7–73.
- Bong, M. & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review*, 15, 1–40.
- Brown, G. T. L. & Harris, L. R. (2013). Students self-assessment. In McMillan (Ed.), *The SAGE handbook of research on classroom assessment* (367-393). Thousand Oak.
- Clark, I. (2012). Formative assessment: Assessment is for self-regulated learning. *Educational Psychology Review*, 24(2), 205–249 (2012). doi: 10.1007/s10648-011-9191-6
- Council of Europe (2020). COMMON EUROPEAN FRAMEWORK OF REFERENCE FOR LANGUAGES: LEARNING, TEACHING, ASSESSMENT. Companion volume. Language Policy Programme Education Policy Division Education Department Council of Europe Retrieved from: <https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4>. 2023.09.06.
- Desmaliza, T. S. & Septianib, T. (2018). Student’s self-efficacy and their speaking skill at lower secondary school. *Advances in Social Science, Education and Humanities Reserach*, 115.
- Ersanli, C. (2015). The relationship between students’ academic self-efficacy and language learning motivation: A study of 8 th graders. *Proceda-Social and Behavioral Sciences*. 199., 472-478.
- European Commmission (1995). White Paper on Teaching and Learning. Towards the Learning Society. Brussels, EC, 1995.
- European Commision (2000). Memorandum on Lifelong Learning, Commission Staff Working Paper, Brussels: SEC (2000) 1832.



- European Commission (2003). „Education & Training 2010” The success of the Lisbon Strategy hinges on urgent reforms. Brussels: EC, COM(2003)685final European Commission (2003) Implementing Lifelong learning Strategies in Europe: Progress report on the follow-up to the 2002 Council Resolution. Reply to the Commission questionnaire. HUNGARY, Brussels: EC.
- Graham, S. (2011). Self-efficacy and academic listening. *J. Engl. Acad. Purposes.* 10, 113-117.
- House, J. (2006). Mathematics Beliefs and Achievement of Elementary School Students in Japan and the United States: results from the Third International Mathematics and Science Study, *Journal of Genetic Psychology*, 167, 31-45.
- Huang, S. C. & Chang, S. F. (1996). Self-efficacy of English as a second language learner: An example of four learners. Retrieved from: <https://files.eric.ed.gov/fulltext/ED396536.pdf>. 2022.04.22.
- Husain, U.K. (2014). Relationship between Self-Efficacy and Academic Motivation. International Conference on Economics, Education and Humanities (ICEEH'14) Dec. 10-11, 2014 Bali (Indonesia)
- Kostonos, D., Van Gog, T. & Paas, F. (2012). Training self-assessment and task-selection skills; A cognitive approach to improving self-regulated learning. *Learning and Instruction*, 22 (2), 121-132.
- Lan, W. Y. (1998). Testing self-monitoring skills in statistics. In: Schunk, D.H. - Zimmerman, B. J. (szerk.), *Self-regulated learning; From teaching to self-reflection practice* (86-105). The Guilford Press.
- McCombs, B. L. & Marzano, R. J. (1990). Putting the self in self-regulated learning: The self as agent in integrating will and skill. *Educational Psychologist*, 25(1), 51–69. https://doi.org/10.1207/s15326985ep2501_5
- McNulty, R. & Baird, K. (2020). The impact of school closures on student learning: An analysis of real-time data for 1.6 million students using Achieve3000 literacy. Red Bank: Achieve3000.
- Molnár, G. & Dudok F. (2021). A digitális oktatás Szeged- egy online környezetben (tapasztalatok pedagógus szemmel). In: Molnár, Gy. - Tóth, E. (szerk.) (2021). *A neveléstudomány válaszai a jövő kihívásaira. Program Előadás-összefoglalók*, Szeged. MTA Pedagógiai Tudományos Bizottsága SZTE Neveléstudományi Intézet: Szeged. 246.
- Molnár, A. & Péter-Szarka, Sz. (2017). A serdülők iskolai énhatékonyságának, aspirációinak és az iskola teljesítményének vizsgálata a célorientációs elmélet tükrében. *Iskolakultúra*, 27(1–12), 19–33. DOI: 10.17543/iskkult.2017.1-12.19
- Naseri, M. & Zaferanieh, E. (2012). The relationship between reading self-efficacy beliefs, reading strategy use and reading comprehension level of Iranian EFL learners. *World Journal of Education*, 2, 64-75.
- Nicol, D., & McFarlane-Dick, D. (2006). Formative assessment and self-regulated learning, a model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199–218 (2006). <https://doi.org/10.1080/03075070600572090>
- Nisbet, D. L., Tindall, E. R. & Arroyo, A. A. (2005). Language learning strategies and English proficiency of Chinese university students. *Foreign Language Annals*, 38, 100–107.



- Noonan, B. & Randy Duncan, C. (2005). Peer and Self-Assessment in High Schools, Practical Assessment. *Research and Evaluation*, Volume 10, Number 17, 1–8. Retrieved from: <http://pareonline.net/pdf/v10n17.pdf>. 2023.08.07.
- OECD (2021). *OECD Skills Outlook 2021: Learning for Life*, OECD Publishing, Paris, <https://doi.org/10.1787/0ae365b4-en>.
- Olina, Z., & Sullivan, H. J. (2004). Student self-evaluation, teacher evaluation, and learner performance. *Educational Technology Research and Development*, 52(3), 5–22 (2004).
- Olivier, E., Archambault, I., De Clercq, M., Galand, B. (2019). Student Self-Efficacy, Classroom Engagement, and Academic Achievement: Comparing Three Theoretical Frameworks. *Journal of Youth and Adolescence*, 48(2), 326–340. DOI: 10.1007/s10964-018-0952-0
- Panadero, E. (2011). Instructional help for self-assessment and self-regulation: Evaluation of the efficacy of self-assessment scripts vs. rubrics. Doctoral dissertation, Universidad Autónoma de Madrid, Spain.
- Panadero, E. (2017). A Review of Self-Regulated Learning: Six Models and Four Directions for Research. *Frontiers in Psychology*, 8, 422.
- Panadero, E., Alonso & Tapia, J. Huertas, J. (2012). Rubrics and self-assessment scripts effects on self-regulation, learning and self-efficacy in secondary education. *Learning and Individual Differences*, 22 (6), 806-813.
- Panadero, E., Brown, G., Courtney, M. (2014). Teachers' reasons for using selfassessment: A survey self-report of Spanish teachers. *Assessment in Education Principles Policy and Practice*, 365–383. Retrieved from: <https://link.springer.com/article/10.1007/s10212-015-0282-5>. 2023.08.09.
- Panadero, E., Brown, G. T. L., & Strijbos, J.-W. (2016). The future of student self-assessment: A review of known unknowns and potential directions. *Educational Psychology Review*, 28(4), 803–830. <https://doi.org/10.1007/s10648-015-9350-2>
- Panadero, E., Jonsson, A., & Strijbos, J. W. (2016). Scaffolding self-regulated learning through self-assessment and peer assessment: Guidelines for classroom implementation. In D. Laveault & L. Allal (Eds.), *Assessment for Learning: Meeting the challenge of implementation*.
- Ramdass, D. & Zimmerman, B. J. (2008). Effects of Self-Correction Strategy Training on Middle School Students' Self-Efficacy, Self-Evaluation, and Mathematics Division Learning, *Journal of Advanced Academics*, Vol 20, Issue 1, 2008.
- Ross, J. A. (2006). The reliability, validity, and utility of self-assessment. *Practical Assessment Research & Evaluation*, 11. <http://pareonline.net/getvn.asp?v=11&n=10>. Accessed 7 May 2015.
- Stevens, T., Olivarez, A., Lan, W. & Tallent-Runnel, M. K. (2004). Role of Mathematics Self-Efficacy and Motivation in Mathematics Performance Across Ethnicity, *The Journal of Educational Research*, 97(4):208-222.
- Tan, K. H. K. (2012). *Student self-assessment. Assessment learning and empowerment*, Reasearch Publishing.
- Taras, M. (2010). Student self-assessment: Processes and consequences. *Teaching in Higher Education*, 15(2), 199-209. doi: 10.1080/13562511003620027

- Tobing, E. A. (2013). The relationship of reading strategies and Self-Efficacy with the reading comprehension of high school students in Indonesia (Doctoral dissertation, University of Kansas).
- Tóth, E., Kissné Gera, Á., Hódi Á., B. Németh, M. (2021). 8. évfolyamos tanulók digitális távoktatásban szerzett tapasztalatai. In: Molnár, Gy., Tóth, E. (Eds.) (2021). XXI. Országos Neveléstudományi Konferencia. Absztraktkötet. MTA Pedagógiai Tudományos Bizottsága, SZTE Neveléstudományi Intézet. p. 647.
- Turner, E. A., Chandler, M., Heffer, R. W. (2009). The Influence of Parenting Styles, Achievement Motivation, and Self-Efficacy on Academic Performance in College Students. *Journal of College Student Development*, 50(3), 337–346. DOI: 10.1353/csd.0.0073
- Wang, C., Kim, D. H., Bong, M., Ahn, H. S. (2013): Examining measurement properties of an English Self-Efficacy scale for English language learners in Korea, *International Journal of Educational Research*, 59 (2013) 24–34.
- Wen, Q. & Johnson, R. K. (1997). L2 learner variables and English achievement: A study of tertiary-level English majors in China. *Applied Linguistics*, 18, 28–48.
- Williams, J. & Takaku, S. (2011). Help seeking, self-efficacy, and writing performance among college students. *The Journal of Writing Research*, 3, 1-18.
- Wong, H. M. (2022). Implementing Student Self-assessment Conditions and Climate. In Taras, M., & Wong, H.M. (2022). *Student Self-Assessment: An Essential Guide for Teaching, Learning and Reflection at School and University* (1st ed.). Routledge. <https://doi.org/10.4324/9781003140634>
- Zimmerman, B. J. & Martinez-Pons M. (1988). Construct validation of a strategy model of student self-regulated learning. *Journal of Educational Psychology*, 3. 284–290.

Legal documents:

- A Nemzeti alaptanterv kiadásáról, bevezetéséről és alkalmazásáról szóló 110/2012. (VI. 4.) Korm. rendelet módosításáról. Magyar Közlöny 17. szám. 2020. január 31., péntek p. 290.

TEACHER EDUCATION AND NEW TECHNOLOGIES

1. A MODEL TO SUPPORT TEACHERS IN BRINGING COMPUTER SCIENCE INTO THE CLASSROOM

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Abstract

The model described in this paper present an innovative tool to help teachers in defining the learning objectives for lesson plans focused on coding practices. The aim is to chart a map organized by school levels which allows teachers to relate computational concepts and practices with coding tools used in school, and then with the elements of “computer science skills” proposed in the guidelines defined by the Italian National interuniversity Consortium for Information Technology and, at the European level, by The Informatics Reference Framework for School.

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1. Introduction

In this paper, we present an innovative tool to help teachers in defining learning objectives of educational activities related to computational thinking and coding skills. More specifically, we have developed a model which consists of a syllabus accompanied by examples of educational activities for teaching programming at school. The aim is to provide teachers with a chart organized by school levels, which allows them to relate computational concepts and practices with the functions of the main tools used in school for programming, and with the elements of computer science skills proposed in the manifesto “Proposal of guidelines for information technology” of the CINI - National Interuniversity Consortium for Information Technology [1] and, at European level, by The Informatics Reference Framework for School [2,3].

The proposed model represents a useful tool for evaluation: the grades assigned by teachers to students as a result of carrying out the various activities may be - using the mapping proposed in the model - linked to computer skills and therefore the evaluation data can be elaborated to create graphs that make explicit the more or less achieved skills. Students can have evidence of their performance, and teachers can monitor the overall progress of the class. The results can be used also to assess and certify the computer programming skills acquired by students, concerning the DigComp 2.2 framework [4].

Finally, the proposed model supports teachers in exercising two of the competences described by the DigCompEdu framework: competence 6.3 - Facilitating learners’ digital competences concerning the creation of digital content (and in particular programming); and competence 4.1 (Analysing evidence) and 4.2 (Feedback and planning) thanks to the possibility to elaborate the grades and give constructive feedback to students regarding their gaps and also planning adequate learning activities to fill those gaps.

Structure of the paper. The remainder of the paper is organized as follows. In Section 2, we present the CINI syllabus and introduce the rationale behind our model. In Section 3, we present a unit for lower primary schools based on the ScratchJr language. In Section 4, we present a unit for upper primary school based on the Scratch language. In Section 5, we present a unit for lower secondary schools based on the Pocket Code language. In Section 6, we present a unit for upper secondary schools based on the EduBlocks tool. Finally, in Section 7, we address some conclusions and future work.

2 Guidelines and Model Structure

Computer science education is taking on an increasingly important role in our society, especially if seen as a tool to address the acceleration that the transition to digital has undergone in recent years. In this context, Computational thinking [5] and Coding play a fundamental role in introducing the basic concepts of programming at every educational level and age. Computational Thinking is at the basis of many modern methods of learning programming already at early school levels. Computational Thinking can be seen as a mental process, based on abstraction and reasoning, to be applied to solve problems by formulating solutions in terms of algorithms. In any activity, even unplugged, inspired by computational thinking, it is necessary to establish the instructions, and therefore the language, to be used in preparing the algorithms. In this context, a very common practice is to start introducing these concepts starting from “every day algorithms”, that is, formulating common procedures in terms of precise sequences of easy to understand instructions and indicating possible alternatives depending on conditions, parts to be repeated, etc. Computational Thinking also provides methodological and analytical approaches to address and solve problems algorithmically: decomposing a complex problem into simpler sub problems, guarantees efficiency, generality, adequacy of a solution. The instructions used in the representation of the algorithms are based on computational concepts common to the functioning of computers and programming languages: instruction sequence, data representation and manio, variables, alternative control flows based on a condition, and iterations.

To the end of establishing instructions that can be unambiguously executable by an executor, and algorithms that can be represented finitely, is essential understanding two important aspects of programming: we need to give precise instructions to the computer in its language based on elementary constructs. Good practices from software development in the professional field are also suggested in computational thinking: Produce by successive iterations and increments; Search for and correct programming errors (bugs) as soon as possible; Recycle and mix existing programs; Divide a program into modules to reuse parts in other programs.

The elements highlighted above in bold, represent some of the elements listed in the "Proposal of guidelines for information technology at school" developed in Italy by CINI - National Interuniversity Consortium for Information Technology.

The CINI document lists - organized by school levels (Primary, Lower Secondary School, First Biennium of Higher secondary School) – the learning objectives and the Knowledge and skill students must acquire (and teacher must teach) at school. Knowledge and skills in CINI guidelines are organized in five main areas: Programming, Data and Information, Digital Awareness and Digital Creativity.

Considering also other literature model for designing informatics curriculum in school [6] the model we developed consist in mapping the CINI elements with the practices teachers uses when guiding students in coding at school. Why we did it? Because we noticed – in our experience of teacher educators – that at school coding is used to develop apps/little games or to do storytelling, but without an explicit reference to computer science: in most cases teachers doesn't know or doesn't make explicit in their lesson plan what computation concept and method they are training while they are doing coding with their students.

Our model help teachers to have clear the informatics concept and practices they use in their lessons and the help teachers to use the right words (the informatic language) when they write the learning objective in their lesson plan, during lessons making the objectives clear and explicit to students, and this is useful for the assessment and certification of the competences at the end of the activities, producing graphs that visualise the area of competences more and less achieved (e.g. using an assessment radar graph as that in Fig. 1).

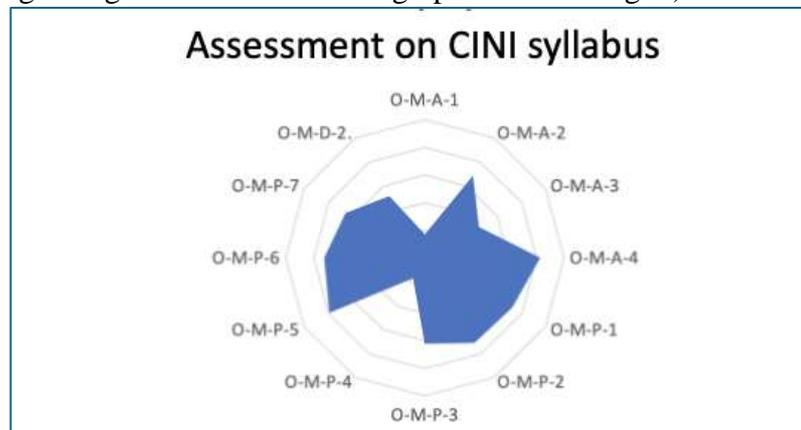


Fig. 1. Example of a graph representing students' performance mapped on CINI syllabus elements.

After developing the mapping, we developed, four training programmes for the three levels of school: lower primary school, primary school, lower secondary school, upper secondary school. Each course consists of a foundational unplugged part and a practical plugged part based on a coding tool that we have selected on the based on our experience with coding labs with students and teachers in the context of a post graduate course at University of Genoa and orientation activities. More precisely, we have selected the following block-based tools: ScratchJr, Scratch, Pocketcode, and Edublocks. In particular, Edublocks provides code-based and textual-based GUI, an ideal tool for the transition from coding to programming in languages such as Python.

3 Lower Primary School: ScratchJr

The simplest way to develop computational thinking is based on coding languages. In this context, computational concepts are represented through visual blocks with names in different languages (multi-lingual therefore by definition) to (1) eliminate problems related to translation between textual languages and (2) facilitate the construction of algorithms using the Lego-like

building blocks. In this context, learning programming is made more stimulating through the addition of pre-packaged blocks which allow us to obtain animations, sounds and music, interaction with the user, etc. ScratchJr is an introductory programming language that enables young children (ages 5-7) to create their own interactive stories and games.

| | | O-P3-A-1 | O-P3-A-2 | O-P3-P-1 | O-P3-P-2 | O-P3-P-3 | O-P3-P-4 | O-P3-D-1 | O-P3-D-2 | O-P3-N-1 | O-P3-N-2 | O-P3-N-3 | O-P3-N-4 | O-P3-R-1 | O-M-R-2 |
|-----------|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| Unplugged | Simplified model of a computer: Metaphor of the executor | | | | | | | | | X | | | | | |
| | Basics of algorithms and problem solving using "daily algorithms": brushing teeth, ordering stickers, etc | X | | | | | | | | | | | | | |
| | Decomposition of a problem in subproblems | | X | | | | | | | | | | | | |
| | Outline of computational concepts with rationale behind them using daily algorithms as examples: sequence, iterations, and alternative/selection | | | X | X | X | X | | | | | | | | |
| | Computational practices: Code incrementally; Try and fix; Recycle and mix | X | X | X | | | | | | | | | | | |
| Plugged | The environment: the theatrical metaphor (stage, scenes, actors); code, try and fix | X | X | X | | | | X | X | X | X | X | X | X | X |
| | Program status, sprites and scripts: position and movement in the 2D scene, aspect, sound, scenes | | | | | | | X | X | | | | | | |
| | Sequence of commands: scripts written as stripes of command blocks | | | | | X | | | | | | | | | |
| | Events (start, when pressed, etc) | | | X | | | | | | | | | | | |
| | Iteration: finite (repeat K times) and infinite loops (repeat forever) | | | | X | | | | | | | | | | |
| | Concurrent execution of multiple scripts and multiple sprites (e.g. animation of two or more sprites) | | | X | | | | | | | | | | | |
| | Messages: message payload as colors, send action and receive event | | | | | | | X | | | | | | | |
| | Alternative/selection using messages | | | | | | X | | | | | | | | |
| | Creating subprograms (i.e. problem decomposition) using messages | | X | | | | | | | | | | | | |
| | Simple example of narrative schemes (converging ideas, hero's journey, the mountain, ...) and how to encode them using scenes and all other elements (sequences, etc) | X | X | X | X | X | X | X | X | | | | | X | X |

Fig. 2. Pre-school: Unplugged/Plugged based on ScratchJr, and Mapping to the CINI Syllabus [3]

ScratchJr offers an instruction set that resembles physical movement in a game (jumping, running, etc.), the ability to change the appearance of a game characters (enlarge, hide, etc.) and management of collisions between characters, swapping of messages, timing of actions. These animation blocks are combined creating sequences of instructions where it is also possible to use repetition or return to an initial state constructs. The program is composed of a series of scripts associated with events generated by the interaction with the player (e.g. starting the game, pressing a character on the screen) or by the interaction between game characters (e.g. collision). Each event block is therefore associated with a subprogram (sequence of blocks) which specifies the character's behavior in that situation. This subprogram can be seen as an algorithm that defines the reaction to a certain event. Event blocks represent initial blocks of a subprogram associated with a specific character (sprite) activated when the corresponding event occurs. Motion blocks allow to move a sprite around the stage: move right/left/up/down, rotate right/left, jump, and return to the position of the beginning of the game. Appearance blocks change the rendering of the sprite icon in the game. Control blocks allow users to start,

repeat, and stop sequences of actions. By using the above-mentioned commands together with blocks to pass from one scenario to another, it is possible to create animated stories by interacting with individual sprites or programming actions triggered by the interaction between sprites.

In Fig. 2 we present the program of a preschool training course based on the basic concepts of computational thinking, unplugged part, and on ScratchJr on the plugged part. The program is based on the above-mentioned blocks. A first example of exercise is to build an arcade game in which a sprite has to reach a target cell moving in a labyrinth and avoiding enemies. Another example is to build direction buttons to control a sprite in the 2D space to reach a given target object. Students have to create buttons to move the main character via inter-sprite messages and learn how to handle collisions between the main character and the targets. Finally, another interesting example is to build a story in which the main character moves from one scene to another, e.g. by using previously defined games, changing aspects and behavior, and interacting with different characters. This kind of exercises can be introduced together with the basic concepts of storytelling, e.g., classical narrative schemes such as a hero's journey, converging ideas, etc.

4 Primary School: Scratch

Scratch is the world's largest coding community for children and a coding language with a simple visual interface that allows young people to create digital stories, games, and animations. Scratch is the version for a higher age group that maintains the same spirit as Scratch jr but introduces many more computational concepts common to professional programming languages for the creation of the script and the parts of the different sprites. For example, in Scratch, there are blocks for creating numerical variables and arithmetic expressions. Furthermore, there are control blocks to define alternatives (if ... then ... otherwise) and loops (repeat until ...) for example with conditions on variables. In this way it is possible not only to build games and stories but also algorithms to carry out calculations of any kind (e.g. maximum of a set of numbers, plotting a mathematical function, searching for a word in a dictionary, etc.). In Scratch it is possible to introduce different levels of reasoning starting for example from every day algorithms by exploiting the possibility of creating and defining new blocks.



| | | OPS-A-1 | OPS-A-2 | OPS-F-1 | OPS-F-2 | OPS-F-3 | OPS-F-4 | OPS-F-5 | OPS-F-6 | OPS-D-1 | OPS-D-2 | OPS-N-1 | OPS-N-2 | OPS-N-3 | OPS-N-4 | OPS-N-5 | OPS-A-3 | OPS-A-4 |
|---|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Unplugged | Sequence: e.g. add two numbers | X | | X | | | | | | | | | | | | | | |
| | Events: e.g. add two numbers read from input | X | | X | | | X | | | | | | | | | | | |
| | Iterations of a sequence of instructions with simple conditions: e.g. compute multiplication using addition | X | X | X | X | X | X | | | | | | | | | | | |
| | Mutual exclusive selection, e.g., compute min and max | X | X | X | X | | | X | | | | | | | | | | |
| | All together: Compute min/max of a sequence of numbers read from input | X | X | X | X | | | X | | | | | | | | | | |
| Plugged | The environment: scratch cloud, public/private projects, run, share, remix | | | | | | | X | X | | X | X | X | X | X | | | X |
| | Online editor, sprites, scene, block editor/categories, scripts, try and fix | | | X | X | | X | | | | | | | | | | X | X |
| | Background and sprite icon editor, sounds | | | | | | | | X | X | | | | | | | X | |
| | Program status, sprites and scripts: position and movement in the 2D scene, aspect, sound, scenes | | | X | X | X | X | | | | | | | | | | | |
| | Create animations using sequences of movement blocks | X | | | X | | | | | | | | | | | | | |
| | Create animations repeating sequences of blocks | | | X | | | | | | | | | | | | | | |
| | Create multiple scripts for different sprites | | | X | | | | | | | | | | | | | | |
| | Create scripts that reacts to events using situation blocks (e.g. when launched, when pressed, when touch...) | X | | | | | X | | | | | | | | | | | |
| | Iterations of a sequence of instructions simple conditions: e.g. move a sprite toward a given target and add effects when the target is reached | X | X | X | X | X | X | | | | | | | | | | | |
| | Mutual exclusive selection, e.g., handling collision with different types of objects | X | X | X | X | | | X | | | | | | | | | | |
| | Create new blocks, e.g., to create a new type of movement or animation (e.g. "jump" block) | X | X | | | | | | | | | | | | | | | |
| | Send and receive messages (e.g. activate a sprite in reaction to a given event, master/slave pattern, conversation, etc) | | | X | | | X | | | | | X | | | | | | |
| | Coordinate timed sequences of events (storytelling) | | | X | | | | | | | | | | | | | | X |
| Input and output blocks, e.g. to create interactive games | | | X | | | X | | | | | X | | | | | | X | X |
| Explore Scratch extensions (music, webcam, etc) to create interactive games | | | X | | | | | | | | X | | | | | | X | X |
| All together: animate a simple algorithms using gamification, create a quiz, a puzzle, an interactive story etc. using custom graphics and sounds and at least one example of use of computational concepts (events, loops, selection, etc) | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

Fig. 3. Primary school: Unplugged, Plugged based on Scratch, and Mapping to the CINI Syllabus [3]

Scratch provides events (e.g. when a sprite is pressed) and message blocks (to send a receive named messages). Messages are broadcast to all sprites and activate once each reception block (e.g. they can simultaneously activate several scripts in the same or different sprites). Similarly to ScratchJr, Scratch offers appearance and animation blocks to move sprites in a 2D scenario. Differently from ScratchJr, the blocks are referred to the sprite point of view, i.e., sprites point in a direction and must turn before changing direction. The sensing blocks can be used, e.g., to detect collisions. The control blocks include basic control flows and time commands. The wait blocks are used to pause the sprite for a certain number of seconds or on a given condition. The forever block is the generalization of the restart block in ScratchJr in that its nested blocks are executed forever. This block is quite useful for animations. The repeat blocks are used for bounded loops. The if-then blocks model alternative/selections. The stop block halts a single or all sprites. The control blocks for cloning sprites are quite useful to dynamically create new

sprites and objects, e.g., to programmatically create the initial stage of a game. Expressions and conditions can be defined using expression blocks. These kinds of blocks reflect the tree structures of arithmetic expressions. Another fundamental computational concept is that of variables. Variables are used to maintain the current state of a program execution, e.g., the current size and position of a sprite, data used during a given computation, etc. Users can create a new variable and use the set and change blocks resp. to assign a value to the variable and to update its value using an expression. Scratch also provides the blocks to create variables that contain list of values. Lists are a basic example of sets of values that can be efficiently manipulated via generic operations such as insertion, deletion, membership test, etc. Scratch also provides the blocks to create user-defined blocks defined by specific subprograms.

In Fig. 3, we present the program of a primary school course based on the basic concepts of algorithms, unplugged parts, and on Scratch in the plugged part. The program is based on the blocks described in this section. An example of an exercise is the implementation of animations associated with Everyday Algorithms by using the different categories of blocks to explore all features of Scratch. A second type of exercise consists of the creation of a skeleton of an arcade game. Extending the arcade game by introducing several game levels using different game scenarios and different types of user interactions is also an interesting and challenging exercise since Scratch does not support scenes as done in ScratchJr. Since Scratch has been designed for creative programming, another natural application is the creation of a user interface to animate basic examples of algorithms such as computing min and max of a given set of values, etc. Animation can also be used to introduce basic concepts of mathematics and physics.

| | MA1 | MA2 | MA3 | MA4 | MA5 | MA6 | MA7 | MA8 | MA9 | MA10 | MA11 | MA12 | MA13 | MA14 | MA15 | MA16 | MA17 | MA18 | MA19 | MA20 | MA21 | MA22 | MA23 | MA24 | MA25 | MA26 | MA27 | MA28 | MA29 | MA30 | |
|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| Unplugged | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Plugged | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Fig. 4. Lower Secondary School: Unplugged, Plugged based on Pocket Code, and Mapping to the CINI Syllabus [3]

5 Lower Secondary School: Pocket Code

Pocket Code is a visual programming language and creativity tool for smart-phones, tablets, and mobile browsers. The App is available for both Android and iOS. The block language is compatible with Scratch and provides categories similar to those present in Scratch. However, it adds features typical of mobile devices such as user interaction via touch screen and built-in variables to retrieve current data of inclination (via the gyroscope sensor) and acceleration of

the device. Sensor data can be integrated in a game for instance to control the movement of a sprite via the physical movement of the tablet.

Pocket Code also provides scenes (as in ScratchJr) and sprite groups a very useful feature for the modular design of a project. As in Scratch, Pocket Code provides animation, appearance, events, messages, and control blocks. A peculiarity of this language is that variables can be assigned values of the value of the device sensors (accelerometer, gyroscope). The possibility of combining virtual and physical data is quite appealing for lower secondary school students who can use Pocket Code to create their game apps (don't just play with your smartphone, program it!). For instance, sprites can be controlled via the device inclination. In Fig. 4, we present the program of a lower secondary school course based on the basic concepts of physical computing, e.g. reactive systems that depend on sensor data, and Pocket Code exercises in the plugged part. The program is based on the blocks and examples with sensor data described in this section. The same examples discussed in Scratch can be proposed in Pocket Code by suggesting to exploit additional features (scenes, sprite properties, sensor data) to create a more sophisticated solution in which user-computer interaction is guided, e.g., by physical interaction with the device.

| | | 03-A-1 | 03-A-2 | 03-A-3 | 03-A-4 | 03-B-1 | 03-B-2 | 03-B-3 | 03-B-4 | 03-B-5 | 03-B-6 | 03-B-7 | 03-C-1 | 03-C-2 | 03-C-3 | 03-C-4 | 03-C-5 | 03-C-6 | 03-C-7 | 03-C-8 | 03-C-9 | 03-C-10 |
|--|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Unplugged | Introduction to algorithms and flowcharts | X | | | | | | | | | | | | | | | | | | | | |
| | Solvable and unsolvable problems | | | X | | | | | | | | | | | | | | | | | | |
| Plugged | Comparison of different solutions for the same problem | | X | | X | | | | | | | | | | | | | | | | | |
| | Introduction to the EduBlocks online environment, block categories, run and share projects | | | | | X | | | | | | | | | | | | X | X | | | |
| | Variables: definition, naming, naming conventions and rules | | | | | X | | | | | | X | | | | | | | | | | |
| | Assigning values to variables and type casting | | | | | X | | | | | | X | | | | | | | | | | |
| | Introducing basic data types like integers, floats, strings, and booleans | | | | | X | | | | | | X | | | | | | | | | | |
| | Performing operations with data types | | | | | X | | | | | | | | | | | | | | | | |
| | Using the [if] and [if-else] statements | | | | | X | | | | | | | | | | | | | | | | |
| | Understanding comparison operators (e.g., ==, !=, >, <=, etc.) | | | | | | | | X | | | | | | | | | | | | | |
| | Exploring boolean operators (e.g., and, or, not) for logical resolutions | | | | | | | X | | | | | | | | | | | | | | |
| | Conditional random if, if-else, and if-else-else statements | | | | | | | X | | | | | | | | | | | | | | |
| | Python lists | | | | | | | | | X | | | | X | X | | | | | | | |
| | Manipulating lists with operators like append and slicing | | | | | | | | | X | | | | X | X | | | | | | | |
| | Understanding iteration with for and while loops | | | | | | | | X | | | | | | | | | | | | | |
| | Controlling loop execution using break and continue statements (optional) | | | | | | | | X | | | | | | | | | | | | | |
| | Creating user-defined functions | | | | | | | | | | X | | | | | | | | | | | |
| | Passing from EduBlocks to textual code | | | | | | | | | | | | X | | | | | | | | | |
| | Creating comments | | | | | | | | | | | | | | | | | | | | | X |
| Simple algorithms (max/min, MCD, simple fractal, etc.) in Python | | | | | | | | | | | | | | | | | | | | | X | |
| Micro:bit | Using Python and I/O code with Micro:bit | | | | | X | X | X | X | X | X | | X | X | | | | | | | X | X |

Fig. 5. Upper secondary School: Unplugged, Plugged based on EduBlocks/Python, and Mapping to the CINI Syllabus

6 Upper Secondary School: EduBlocks and Python

EduBlocks is a free tool by Anaconda that helps anyone learn how to code with text-based languages like Python or HTML using a familiar drag-and-drop blocks system. In EduBlocks, each block represents a line of code. The text editor also updates with every block that is dragged into the workspace. EduBlocks provides tools to create student assignments, keep track of their progress, and to grade their work.

In Fig. 5, we present a unit consisting of eight short programming modules based on EduBlocks. The final assignments for each module require students, e.g., to devise an algorithm for computing the area and perimeter, swap the values of two variables, receive two input numbers

and store them in separate variables, then calculate and display their sum, accept an input number, and assess if it fulfills a specified condition using boolean and comparison operators, etc.

7 Discussion

The model is under validation within a Master's degree provided by the University of Genoa aimed at teachers for learning the pedagogical value of using digital technologies at school. The evaluation of the model proposed is based on the feedback from the teachers involved in the two previous initiatives, focusing on 1) the adherence to the competence identified by the used frameworks (the ones from CINI and the Informatics for all) and 2) the adequacy of the activities proposed for the different school orders. Syllabus and examples of activities are useful tools for teachers who can – for the different school orders - offer students innovative and engaging teaching activities and make explicit both the related learning objectives and the involved concepts and computational practices (to be declared in their teaching plans).

References

1. GII and GRIN. Proposal for a national informatics curriculum in the Italian school, 2017.
2. M. E. Caspersen, J. Gal-Ezer, A. McGettrick, E. Nardelli, D. Passey, B. Rován, and M. Webb. Informatics reference framework for school, 2022.
3. M. E. Caspersen, J. Gal-Ezer, A. D. McGettrick, and E. Nardelli. Informatics education for school: A European initiative. *Inroads*, 14(1):49–53, 2023.
4. R. Vuorikari, S. Kluzer Y., and Punie. Digcomp 2.2: The digital competence framework for citizens - with new examples of knowledge, skills and attitudes, eur 31006 en, publications office of the European Union, 2022.
5. J. M. Wing. Computational thinking. *Commun. ACM*, 49(3):33–35, 2006.
6. V. Dagienė, J. Hromkovič, R. Lacher, Designing Informatics Curriculum For K-12 Education, *Informatics in Education*, 2021, Vol. 20, No. 3, 333–360, 2021 Vilnius University, ETH Zürich DOI: 10.15388/infedu.2021.22

TEACHER EDUCATION CURRICULA

1. COMPETENCE-BASED COMPREHENSIVE EXAM IN PEDAGOGY AND PSYCHOLOGY AT APOR VILMOS CATHOLIC COLLEGE

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Abstract

Hungarian higher educational institutions apply an increasing number of innovative practices in their teacher training programs, responding to the challenges posed by twenty-first-century learning environments and children. The competence-based comprehensive exam in pedagogy and psychology introduced in 2022 at Apor Vilmos Catholic College also illustrates good practice.

To achieve our educational goals, we have developed a two-tier competence-based comprehensive exam. In the first step, students complete an online theoretical test according to their schedule at several attempts one of which has to produce a result of 100%. Subsequently, at the oral exam, they participate in a role-playing game in groups of 3-5. Our aim is to simulate real-life situations in which students can apply their pedagogical and psychological competencies creatively and in a dramatic form. Each phase of the exam is a learning platform that enhances students' knowledge and develops their personality, forming their pedagogical identity.

Our expectations have been confirmed by the findings of an empirical survey: students' responses to a questionnaire attest that the competence-based exam is significantly more popular. Students experience less distress, and more joy and success, during the examination process, while they spend no less time with preparation than in the case of a traditional exam. Since they consider the exam as a good practice, they would gladly apply the idea in their pedagogical practice.

Keywords: *competence-based exam, teacher preparation systems, competence development in teacher education, stress-free exam, problem-based learning*

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Competence-Based Comprehensive Exam in Pedagogy and Psychology at Apor Vilmos Catholic College

The performance of Hungarian students in national and international competency tests is on a downward trend. According to the results of the most recently published 2018 PISA tests, Hungarian students achieved significantly lower scores in all three areas (reading comprehension, mathematics, and science) compared to the results of the early 2000s. Since the turn of the millennium, the proportion of students performing at the weakest level has increased, while the proportion of those performing at the highest level has remained stagnant

or has slightly decreased (Oktatási Hivatal, 2019, p.49). Other research findings, such as those of the Programme for International Assessment of Adult Abilities and Competencies (PIAAC), warn that the basic skills and competencies measured in the PISA tests are also crucial in adulthood for success in the labour market and personal well-being (Lannert & Holb, 2021, pp. 6-8).

Hungary joined the international assessment of adult skills in 2017-18 when just over 6,000 individuals participated in the PIAAC survey, which measures the social, family, and labour market background of the respondents in addition to their reading, mathematical, and problem-solving skills in the population aged 16-65 (Lannert & Holb, 2021, p. 12). This allows for an examination of the relationship between skills and competencies on the one hand and labour market success, social activity, and family life on the other one. The results unequivocally indicate that learning is worthwhile everywhere, but particularly so in Hungary. Possessing skills and competencies acquired through learning, especially those grounded in reading comprehension and mathematical abilities, can result in earnings that are approximately 9.9-26.1% higher, depending on the level of education (Lannert & Holb, 2021, p. 6).

Lannert and Holb (2021) point out that better skills are associated not only with higher earnings, but also with better health, greater social activity, and overall greater subjective satisfaction with life (p. 6). The results of the survey demonstrate the necessity of building competencies possibly in childhood. As the survey recommends, it would be necessary to turn workplaces at least partly into training places, since it is never too late to invest in skills development (Lannert & Holb, 2021, p. 135). To further justify the urge for skills development at workplaces, it is worth mentioning at this point that the Hungarian public education system is characterized by extreme inequality of opportunity. In PISA scores, there are huge disparities between school types, regions, and particular schools, and family background has a significant impact on student achievement (Oktatási Hivatal, 2019, pp. 50-54 and 60-61). This phenomenon also contributes to the extremely low social mobility, as well as to the quality of life and subjective physical and mental health of the population.

Some of the challenges and criticisms related to Hungarian public education, including the deteriorating competencies of students, have increasingly focused on the reform of teacher education. The need for renewal is not unique to Hungary: between 2016 and 2018, OECD experts examined the state of teacher education in seven countries (OECD, 2019). A summary of the recommendations of the research and its adaptation to Hungarian conditions is also available (Pelesz, 2022). The OECD study underscores, among others, that in addition to the transfer of cognitive elements, a strong emphasis should be placed on the development of non-cognitive competencies in teacher training, such as personality development, self-reflectivity, self-awareness, partnership and cooperation skills, critical attitude in the information flow, and the development of social-emotional skills (OECD, 2019, p. 84; Pelesz, 2022, pp. 49 and 55).

It follows from the preliminaries that the competencies measured in the PISA tests, as well as specific key competencies for teachers, are essential for a successful career in education, both professionally and personally. The background and educational history of our student community enhance the necessity of the development of non-cognitive competencies with more urgency: our students are predominantly young people many of whom come from school and family backgrounds that are not necessarily conducive to creative, critical, and autonomous thinking, or eventually, to the embracing of such a critical attitude in their environments. As we expect our graduates to develop these competencies in their pupils, we need to reinforce the

non-cognitive competencies in them first. The good news is that these skills can and should be developed in (young) adults, and therefore need to be developed in pre-service teachers. A cornerstone of the mission of Apor Vilmos Catholic College (AVCC) is the development of student's skills, abilities, and competencies in both cognitive and non-cognitive areas, which is reflected not only by the College's curricula and particular courses but also by the attitude and the vision of the staff (Apor Vilmos Katolikus Főiskola, 2021; Apor Vilmos Catholic College, 2021). The development of the non-cognitive competencies of the students is a substantial element of the College's pedagogical program. An example of this approach has been demonstrated by the recent transformation of one of the most important exams, the comprehensive exam in pedagogy and psychology, to allow more room for a competence-based approach. This paper will discuss the principles and the first experiences of the new exam, including the results of a follow-up survey among students. The findings will demonstrate a good practice that combines the traditional frames of higher education with a welcome move towards competence-based training to the satisfaction of all parties involved.

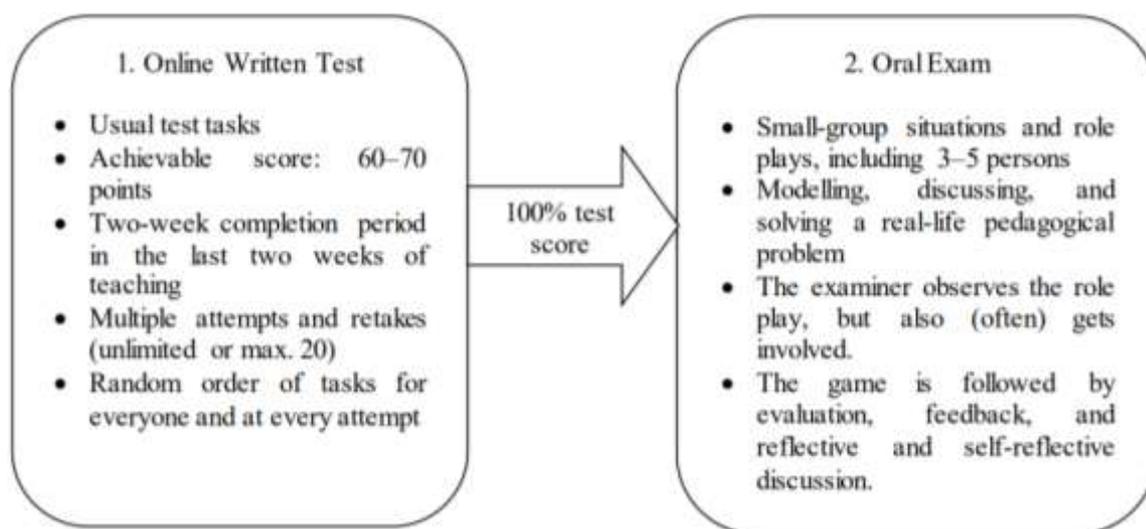
The new comprehensive exam in pedagogy and psychology at AVCC

The comprehensive exam in pedagogy and psychology (hereafter referred to as PEPSY) is an integral part of many teacher training programs in Hungarian higher education. Students typically take the exam towards the middle of their training, following their foundational studies in pedagogy and psychology and before the intensive phase of their educational or teaching practice in nurseries, kindergartens, or schools. Universities organize the exam in a variety of forms, but most typically it takes the form of a traditional oral colloquy in front of a committee based on the prior preparation of scholarly literature and the presentation of a randomly assigned topic. (e.g., ELTE TOK Óvodapedagógus szak, 2023; ELTE TOK Tanító szak, 2022-23; PPKE VJTK; PTE KPVK). The oral exam may be preceded by a written test, and there are also examples when students can use their notes and mind maps during the oral exam (ELTE TOK Óvodapedagógus szak, 2023; ELTE TOK Tanító szak, 2022-23). However, the higher educational institutions are united in their wish to invite students to a professional discussion at this exam, where the committees can assess how well the examinees have synthesized the basic psychological and pedagogical knowledge, how well they have integrated it into their thinking and approach, and how successfully it can be activated in concrete practical situations.

The conventional comprehensive exam, an important milestone in becoming an educator, seeks to assess students' global awareness of the pedagogical and psychological subjects taught in the first two (or eventually, three) years of their training. The exam is often the first real professional conversation between experts in the field and the students whose professional identity often fails to emerge in the traditional exam situation precisely because the candidates may experience distress and shame, underperform, and be reluctant to show their ways of thinking. Instead, students often pursue strategies of conforming to perceived expectations, as the examinees are in a subordinate position. The situation is an unpleasant experience for many students, and often for the examiners as well. Such experiences and feelings are not compatible with enhancing a healthy sense of expertise and with the general goals of education in the 21st century. Without laying a claim on the invention of the Spanish visa, the transformation of PEPSY at APCC may illustrate an alternative to the pedagogy of shame and the evaluative-

qualitative approach. We believe that the new comprehensive exam procedure, introduced at APCC in 2022, may successfully address and eventually solve the problems outlined above. The new comprehensive exam was catalyzed by the forced switch to online-digital education during the COVID epidemic when the participants of higher education were introduced to several online examination platforms. The process of the new comprehensive exam procedure at APCC is summarized in Figure 1.

Figure 1
The Procedure of PEPSY organized at APCC



As shown in Figure 1, the new comprehensive exam at APCC consists of two stages. The online written test scheduled for the last two weeks of the teaching period is followed by an oral session a few weeks later in the examination period. On the online test, students can achieve a score of 60–70 points, and the questions are traditional test questions formulated clearly, but not trivial. The novelty of this written test lies in the fact that students can attempt it more than once in two weeks. Initially, an unlimited number of attempts was provided, but it was later limited to one plus nineteen retakes to reduce guesswork. The test is open for 180 minutes per completion. The prerequisite of the oral exam is a 100% achievement on the written test on at least one occasion during the completion period. The *raison d'être* of this system is that frequent and regular testing results in more efficient learning than preparation for a single oral exam. Also, online testing enhances students' ability to recall a larger portion of important factual knowledge at the oral stage. In effect, the written part of the comprehensive exam encourages students to learn, to think autonomously, to properly search, and to use source materials rather than to reproduce theory in a questionable quality.

Experience shows that most students fulfill the prerequisite of the oral exam. In the case of those who do not, the procedure for the oral exam is individually considered. In the oral session, students take part in a small-group role-play including 3–5 persons, in which students play different roles (e.g., teachers, parents, children, school directors, maintenance), discuss, and try to solve a pedagogical problem. The 'examiners' are present as observers, but often they get



involved in the play and take on a role (e.g., a parent bringing in the parents' point of view into the situation). The situations are written by members of the staff of the Departments of Psychology and Pedagogy, and they represent real-life cases, problems, and typical situations. In recent years, a sizeable collection of such cases has been anthologized. Students are given 20 minutes to prepare in groups and the same amount of time to enact the situation. After the play, they step out of their roles, and a feedback circle follows, in which we discuss their experiences, feelings, professional and personal reflections, and self-reflection. Through the situation plays, the students often recognize typical communication panels and mistakes in difficult pedagogical situations and often leave with the experience of the Aha! moment. Students also express their wish to participate in more plays during their training, thus, these exercises have already been integrated into course materials from the very first year of the BA program. Figure 2 shows a sample situation play.

Figure 2
A Sample Situation Play Used at the Oral Exam of PEPSY at APCC

Apor Vilmos Catholic College
Preschool Teacher BA Programme

Comprehensive Exam in Pedagogy and Psychology: Oral Task

Dear Students,

Below you will find the description of a pedagogical situation. Your task will be, once you have immersed in the situation and in your roles, to engage in a constructive and problem-oriented discussion with each other and to find solutions to the problem, relying on appropriate psychological and pedagogical competences.

School readiness

Based on the case study below, plan and enact the situation. All members of the group should play an active role in the situation.

You are the parents and the kindergarten teachers of a pre-school child. Recently, a debate has arisen between you about whether the child is mature enough to go to school. The parents would like the child to stay in kindergarten for one more year, but the teachers do not see any reason to do so.

Teachers and parents meet to discuss the options and to help the parents in their decision:

- a) Briefly discuss the current rules on compulsory school attendance (when it starts and how to request a deferral).
- b) Collect all the aspects that can be taken into account in deciding whether to stay or go.
- c) What are the criteria for school readiness?
- d) How do you relate to the fact that the other side (kindergarten / parents) sees the situation differently?
- e) Support your stand: the kindergarten for going, the parents for staying.
- f) What testing methods do you know of or would you recommend to assess school readiness? Who can conduct such assessments?

To solve the problem, we suggest that you also consider the following:

- a) The current rules for compulsory education, the start of compulsory education
- b) The neurological, physical, cognitive, cognitive, social, behavioural and other criteria of school readiness
- c) The consequences of starting school too early/too late
- d) Assessment of school readiness (who, when, how)
- e) How can schools deal with children of different maturity levels?

The “new” exam procedure has proved in many ways better than the “old” system. Figure 3 summarizes the differences between the two systems:

Figure 3
Comparison of the “Old” and “New” Comprehensive Exams at AVCC

| “Old” Comprehensive Exam <i>Based on a list of topics and the presentation of a randomly assigned topic</i> | “New” Competence-Based Exam <i>Online written test + small-group situation plays</i> |
|--|---|
| Stressful, triggering anxiety, minimally rewarding | Lower level of stress; the improving test results are rewarding on themselves |
| More like frontal questioning, followed by evaluation and assessment | More like training, which teaches students |
| Students have to comply with external frames | Students can progress in their own pace |
| Students often reproduce prefabricated topics in questionable quality. The presentations are often weak and do not reflect systemic thinking. | The completion of the test requires the consultation of lecture materials and secondary literature; it is necessary to get absorbed and to understand connections. |
| Presentations often lack deep understanding and real knowledge. | Going through the stages of this exam, students learn more efficiently and lastingly and understand connections better. |
| Exemplifies a case of the evaluative-punitive approach. | Exemplifies a case of the developing-facilitating approach. |
| Beyond itself, it does not teach students about the essence of school education. Students typically prioritize the grade and passing the exam over the acquisition of knowledge. | It makes clear that the aim of learning and teaching in any situation is to acquire knowledge, to develop competences, to experience one’s own personal development, to solve tasks autonomously, and to use commonly available resources. |
| Conservative, not creative, although widely used | Progressive; its very approach coincides with the principles welcomed in education |
| Emphasizes individual performance. | Enhances cooperation among students. |
| Grades range from 1 to 5. | The tendency is to achieve the exam with good grades. |
| Students find it very difficult to relate the facts and knowledge of their presentations to practical situations. | Situations revolving around real problems mirror real life. |
| No guarantee for just and objective assessment | No guarantee for just assessment and objective feedback |
| Students’ attitudes are characterized by a survival mentality; they experience no pleasure. | The exam provides a sense of success and increasing competence; thus, it is motivating and pleasant. |
| It allows less creativity for teachers and students. | It encourages creativity among students and teachers alike. The development of the tests, particularly the preparation of the situations, allows for the inclusion of many playful and creative elements, both on the part of the students and the test developers. |

To demonstrate the advantages intuitively assumed about the “new” exam, an empirical survey has been carried out among the students of AVCC. We conducted a questionnaire among our

students, asking them about their experiences with the new examination system. The survey and the results are described in the following section.

Methods

Respondents

Students actively participating in the training programs of AVCC, either having passed or still about to take the comprehensive exam, were asked about their experience concerning the new exam. In total, 40 students completed the questionnaire, 39 of them female, with an average age of 33.5 ± 10.7 years. Respondents included both full-time and part-time students. Part-time students are typically older, and many of them already working in education as unqualified teachers, teaching assistants, or nurses. Table 1 summarizes the characteristics of the respondents.

Table 1
Respondents Characteristics

| | | | |
|--|---|---|---|
| Program | Infant and Early Childhood Education: 7 persons (17.5%) | Infant and Early Childhood Education: 7 persons (17.5%) | Lower Primary School Teacher: 8 persons (20%) |
| Year | Year 1: 3 persons (7.5%) | Year 2: 21 persons (52.5%) | Year 3: 16 persons (40%) |
| Full-time/part-time | Full-time: 13 persons (32.5%) | Part-time: 27 persons (67.5%) | |
| Currently employed in education | No 20 persons (50%) | Yes 20 persons (50%) | |
| Has already taken PEPSY | No 23 persons (57.5%) | Yes 17 persons (42.5%) | |
| Limited attempts at the online test | Has not yet taken the exam: 23 persons (57.5%) | No limit on attempts: 10 persons (25%) | Limited attempts: 7 persons (17.5%) |

The Questionnaire

In the questionnaire, students were asked about their attitudes towards the new system of the comprehensive exam, as well as their experiences among those who had already completed the test. Attitudes were measured on a five-point scale. Everyone was asked about how pleasant they thought the new exam was, how well it reflected their level of preparedness, how much they thought it was awareness-raising, how well it reflected the needs of 21st-century education, and finally, how much they liked it overall.

Students who had already passed the exam were also asked about their experiences. Also on a scale of five, students rated how much effort they had to invest into completing the exam, how much they worked independently (honestly), how much they enjoyed the written test or the oral session, or the exam as a whole, and finally how realistic and fair they felt the assessment of the new exam was. The questionnaire included the aspect of independent (honest) work because the major weakness of the new comprehensive exam is that the equality of opportunities cannot objectively be controlled. While in the test completion phase, everyone

can work with their tools and at their own pace, independent work is required from the students. To encourage students to work individually rather than completing the test for each other, the order of the test items is randomized for each student and each completion. However, even so, it remains beyond control whether students work independently. In this context, it was important to ask respondents how realistic they felt about their final grade.

Results and Discussion

Results and Correlations

The mean and standard deviation values of the questionnaire scales are shown in Table 2. It is clear from the very numerical values that, despite the low number of respondents, students' attitudes and experiences of the new system are tendentiously better. The fact that the respondents rated the degree of independent and honest work at 4.1 on a five-point scale on average and the fairness of the assessment at 4.12 is important and reassuring feedback regarding the design and the overall principles of the comprehensive exam.

Table 2
Respondents' attitudes and experiences

| | N | M ± SD |
|--|----------|---------------|
| ATTITUDES (on a five-point scale) | | |
| The new exam is pleasant. | 40 | 4.70 ± 0.73 |
| The new exam adequately measures preparedness. | 40 | 4.48 ± 0.88 |
| The old exam adequately measures preparedness. | 40 | 3.05 ± 1.07 |
| The new exam is awareness-raising. | 40 | 4.65 ± 0.62 |
| The new exam reflects the needs of the 21 st century. | 40 | 3.75 ± 1.28 |
| The old exam reflects the needs of the 21 st century. | 40 | 2.75 ± 1.13 |
| Taken all together, the new exam is good. | 40 | 4.63 ± 0.64 |
| Taken all together the old exam is good. | 40 | 2.41 ± 0.74 |
| EXPERIENCES (on a five-point scale) | | |
| Degree of effort | 17 | 3.65 ± 0.85 |
| No cheating, individual work | 17 | 4.10 ± 0.65 |

| | | |
|--|----|-------------|
| Realistic and fair assessment | 17 | 4.12 ± 0.65 |
| Good experience in the oral part | 17 | 4.38 ± 0.63 |
| Good experience in the written test | 17 | 3.88 ± 0.89 |
| Taken all together, the new exam is a good experience. | 17 | 4.16 ± 0.52 |

In addition to simple mean and standard deviation values, elementary-level data analysis was also carried out. Correlations show that, unsurprisingly, positive attitudes and experiences towards the new exam are mutually reinforcing. Both pre-exam attitudes and concrete experiences show significant correlations with important variables such as honest and individual work, the exam's awareness-raising nature, and realistic and fair assessment. It was interesting to observe that parallel with the valorization of the new comprehensive exam, the old exam procedure was devalued in the minds of the students. The main correlations are shown in Table 3.

Table 3
 Main significant correlations ($p < 0.05$)

| | ATTITUDE: The new exam is pleasant. | EXPERIENCE: Taken all together, the new comprehensive exam is a good experience. | EXPERIENCE: Realistic and fair assessment |
|--|---|--|---|
| ATTITUDES | | | |
| The new exam adequately measures preparedness. | 0.64 | 0.63 | 0.77 |
| The old exam adequately measures preparedness. | <i>n.s.</i> | <i>n.s.</i> | -0.52 |
| The new exam is awareness-raising. | 0.84 | 0.59 | 0.89 |
| The new exam reflects the needs of the 21 st century. | <i>n.s.</i> | 0.65 | <i>n.s.</i> |
| The old exam reflects the needs of the 21 st century. | <i>n.s.</i> | <i>n.s.</i> | <i>n.s.</i> |
| Taken all together, the new system of examination is good. | 0.92 | 0.60 | 0.91 |
| Taken all together, the old system of examination is good. | -0.64 | <i>n.s.</i> | -0.80 |

EXPERIENCES

| | | | |
|-------------------------------------|-------------|-------------|-------------|
| Degree of effort | <i>n.s.</i> | <i>n.s.</i> | <i>n.s.</i> |
| No cheating, individual work | <i>n.s.</i> | <i>n.s.</i> | <i>n.s.</i> |
| Realistic and fair assessment | 0.87 | 0.68 | 1.00 |
| Good experience with the oral part | 0.86 | 0.67 | 0.77 |
| Good experience in the written test | 0.54 | 0.50 | 0.59 |

Note. The table shows the Pearson-r values. *n.s.*: no significant correlation

Table 3 shows the main correlations (all values are significant when $p < 0.05$). The figures show that students overall like the new system of examination. Both at the level of concrete experience and the level of both pre-exam and post-exam attitudes, we can see that the respondents' satisfaction with the new system is basically that because they consider the new system to be essentially awareness-raising and that they feel that the exam assesses them more fairly and reflects their preparedness more realistically. If not in the pre-exam stage, certainly after experiencing the exam, they understand that the new comprehensive system is more in line with the requirements of 21st-century education.

Both the members of the staff at AVCC (as designers of the new exam scheme) and students consider it very important that the assessment of the exam is realistic and fair. This dimension strongly correlates with the other indicators of satisfaction and seems to be the major factor behind prioritizing the old or the new exam. Those who are more satisfied with the traditional ("old") comprehensive exam do not like the assessment of the new exam. In respect of the realistic assessment and feedback, the figures also caution the examiners that they should strive for as much fairness as possible. It is also interesting to observe that the level of effort shows no correlation with either attitudes or experience. This means that for students, it is not the amount of work they invest into preparation that determines their satisfaction with the comprehensive exam; they are eager to work and do not want to only survive the exam. However, it is important to note that neither the test nor the oral session requires "superhuman" effort from the students, as the average number of attempts is 6.6 before they reach 100%, so a further limitation of the currently maximum twenty attempts should be considered.

A two-sample t-test shows that the full-time and part-time students' experiences and attitudes to the new system of examination do not differ significantly. No significant differences in attitudes were found between respondents who had not yet taken the comprehensive exam and those who had already passed it, and similarly, there were no significant differences in the attitudes and experiences of students who were working in education. It seems that the competence based PEPSY is a new experience for older and younger students alike, regardless of their teaching experience.

Conversely, the group in which the number of the attempts of the online test was maximized rated the new exam significantly higher in terms of its potential of being awareness-raising ($M_{\text{Unlimited}} = 4.27 \pm 0.86$; $M_{\text{Limited}} = 5.00 \pm 0.00$; $t = -2.24$; $p = 0.04$). Those whose attempts were limited tended to have higher levels of agreement that the assessment of the exam was realistic

and fair ($M_{\text{Unlimited}} = 3.73 \pm 1.26$; $M_{\text{Limited}} = 4.67 \pm 0.33$; $t = -1.90$; $p = 0.07$) and also tended to find the new exam more suitable for demonstrating their knowledge ($M_{\text{Unlimited}} = 3.85 \pm 1.45$; $M_{\text{Limited}} = 4.86 \pm 0.24$; $t = -1.80$; $p = 0.09$), and also had slightly more positive attitudes towards the new exam overall ($M_{\text{Unlimited}} = 4.125 \pm 1.07$; $M_{\text{Limited}} = 4.95 \pm 0.07$; $t = -2.01$; $p = 0.06$). Overall, limiting the number of attempts resulted in a positive change: not only did it reduce the number of points gained by guessing, but it also increased students' satisfaction, as they perceived the assessment fairer in this way.

The exam has to be passed by students of three BA programs: Infant and Early Childhood Education (INF), Preschool Teacher (PRE), and Lower Primary School Teacher (PRIM). Comparing their results by variance analysis and post hoc analysis, it appears that there was a significant difference between the three groups on one variable: the students of the Infant and Early Childhood Education BA program were the least satisfied with the old comprehensive exam, and compared to the two other groups, they gave significantly lower scores for the suitability of the old system to adequately measure preparedness ($M_{\text{INF}} = 2.21$; $M_{\text{PRE}} = 3.30$; $M_{\text{PRIM}} = 3.00$; $F = 3.12$; $p = 0.04$). This implies that early childhood educators, perhaps due to the highly practical trajectory of their training, were the most likely to reject the previous theory-centered exam frontally questioning students on their knowledge.

Conclusion

This paper presented a new examination model which is not widespread in Hungarian higher education, and which was introduced at Apor Vilmos Catholic College in 2022 at an important stage of teacher training, affecting the comprehensive exam in pedagogy and psychology. The new comprehensive exam consists of two stages: an online written test, to be attempted several times over two weeks and to be passed with a maximum score, followed by an oral session in which students participate in small-group role-plays. While the new exam is less stressful, its completion is not trivial at all, which enables students to learn and develop their competencies more efficiently both in the test-writing phase and in the situation exercises, compared to conventional comprehensive exam procedures based on the preparation of a list of topics and the presentation of a randomly assigned topic at an oral exam. The admitted goal of the new comprehensive exam is to give students a chance to experience a pedagogical attitude and methodology at a sensitive point of their training that, in their pedagogical practice, can override the pedagogical practice based on qualifying, assessing, and eventually humiliating the students still persistent in the Hungarian educational system. The new comprehensive exam offers a model and a method focusing on competence development and the creative use of resources and taking into account individual characteristics.

Our empirical research, although involving a low number of respondents, consistently confirms the expectations from the reform of the comprehensive exam. The new exam is popular among students who are happy to work with it mostly individually, avoiding cheating. Students are sensitive to the fairness and realistic nature of the assessment, so further fine-tuning of the system needs to target especially this aspect. The new comprehensive exam is seen by many as awareness-raising and a model to be implemented in other areas and levels of education. For these reasons, we recommend the scheme to schools and training courses in other settings.

References

- Apor Vilmos Catholic College (2021). *Study programs in Hungarian*. avkf.hu/english.
- Apor Vilmos Katolikus Főiskola (2021). *Képzések* [Study programmes]. avkf.hu.
- Apor Vilmos Katolikus Főiskola (2021). *Rektori köszöntő* [Mission statement]. avkf.hu.
- ELTE TOK Óvodapedagógus szak (2023). *Pedagógia-pszichológia szigorlat* [Comprehensive exam in pedagogy and psychology]. Retrieved October 27, 2023, from https://www.tok.elte.hu/dstore/document/638/Ovos_szigorlat_tetelsor_2023.pdf
- ELTE TOK Tanító szak (2022-23). *Pedagógia-pszichológia szigorlat* [Comprehensive exam in pedagogy and psychology]. Retrieved October 27, 2023, from https://www.tok.elte.hu/dstore/document/882/tan%C3%ADt%C3%B3s_szigorlat_2022_2023.pdf
- Lannert, J. & Holb, É. (2021). *Hazai jelentés a PIAAC eredményeiből* [Domestic report from the results of PIAAC]. Retrieved October 27, 2023, from https://piaac.nive.hu/Downloads/eredmenyek/Hazai_jelentes_a_PIAAC_eredmenyeibol.pdf
- OECD (2019). *A Flying Start: Improving Initial Teacher Preparation Systems*. Paris: OECD Publishing. <https://doi.org/10.1787/cf74e549-en>. Retrieved October 27, 2023.
- Oktatási Hivatal [Educational Authority of Hungary] (2019). *PISA 2018: Összefoglaló jelentés* [Summary report]. Retrieved October 27, 2023, from https://www.oktatas.hu/pub_bin/dload/kozoktatas/nemzetkozi_meresek/pisa/PISA2018_v6.pdf.
- Pelesz, N. (2022). A pedagógusképző rendszerek megújításának lehetőségei: Repülőrajt – Az OECD jelentése a tanárképzés fejlesztéséről [A flying start: Improving initial teacher preparation systems: An OECD report on the development of teacher training]. *Módszertani Közlemények*, 62(1), 47-65. Retrieved October 27, 2023, from <https://ojs.bibl.u-szeged.hu/index.php/modszertani-kozlemenyek/article/view/44046/42895>
- PPKE VJTK (n.d.). *Pedagógia-pszichológia szigorlat tantárgy adatlapja* [Description of the comprehensive exam in pedagogy and psychology]. Retrieved October 27, 2023, from <https://ppke.hu/pedagogia-pszichologia-szigorlat-boltp10100>
- PTE KPVK (2022-23). *Komplex pedagógia-pszichológia szigorlat témakörei és forrásai tanító szakos hallgatóknak* [Topics and sources of the comprehensive exam in pedagogy and psychology for students of the Primary School Teacher programme]. Retrieved October 27, 2023, from https://kpvk.pte.hu/sites/kpvk.pte.hu/files/komplex_szigorlat_tanito_2022_23.pdf

TEACHER EDUCATION THEORIES AND METHODS

1. EPISTEMOLOGICAL BELIEFS AND TEACHING-LEARNING CONCEPTIONS OF MYANMAR STUDENT TEACHERS AND DOCTORAL STUDENTS: A PILOT INTERVIEW STUDY

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Abstract

This study is the pilot to the qualitative part of a larger mixed-methods study exploring Myanmar student teachers' epistemological beliefs (EBs) and teaching-learning conceptions (TLCs). Based on Schommer's EBs theory (1990) and Chan & Elliott's study on EBs and TLCs (2004), this study conceptualises that the EBs of student teachers might influence their TLCs. This pilot was done for two purposes: firstly, to develop, assess and refine an interview protocol to see if the questions answered the depth and breadth of the main research questions; secondly, to see if the data gained may be rich enough to complement, further refine and enrich the quantitative data gained through the survey. Based on the four-phase process to interview protocol refinement by Castillo-Montoya (2016) and the findings from the quantitative data analysis, a semi-structured interview schedule with 15 points was developed. Two student teachers and two doctoral students were selected to participate by using convenience sampling. Thematic analysis of the interview data was conducted by using MAXQDA 2022 software. In response to the first purpose, the results proved that the instrument could elicit data about the participants' EBs and TLCs. As for the second purpose, the data elicited suggests that the qualitative part of the research may potentially be rich enough to validate, supplement, refine and enrich the quantitative data. The interview data also suggests that cultural influences potentially play a role in explaining why the participants of the survey were found to have less sophisticated EB regarding the source of knowledge.

Keywords: *epistemological beliefs, teaching-learning conceptions, student teachers, doctoral students*

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Introduction

In the realm of teaching and learning, various cognitive variables play influential roles. Among these variables, epistemological beliefs (EBs) and teaching-learning conceptions (TLCs) hold particular significance (Schommer, 1990, 1994; Cheng et al., 2009; Aypay, 2011). According to Schommer (1990), EBs refer to individuals' beliefs about the nature of knowledge and their approach to acquiring knowledge. Understanding the epistemological beliefs and belief systems of student teachers is seen as a fundamental requirement for gaining deeper insights into their learning processes and how they subsequently perform as professional educators in classroom settings (Cheng et al., 2015), because these beliefs significantly

influence student teachers' conceptions of teaching and learning, as noted by Aypay (2010) and Chan and Elliot (2004). Chan and Elliot (2004, p. 819) defined TLCs of student teachers as their beliefs regarding their preferred methods of teaching and learning, encompassing not only the meaning of teaching and learning but also the roles of teachers and students.

These conceptions can be categorized into two opposing approaches: traditional and constructivist TLCs (Duffy & Roehler, 1986; Chan & Elliot, 2004; Schunk, 2008). Teachers who adopt a traditional conception of teaching employ teacher-centred approaches, considering themselves as the primary source of knowledge, and view students as passive recipients of knowledge (Chan & Elliot, 2004; Cheng et al., 2009; Aypay, 2011). On the other hand, teachers with a constructivist TLC implement student-centred strategies and focus on fostering 21st century skills, such as critical thinking, collaboration, and problem-solving. They believe that learning is most effective when students actively participate in the teaching-learning process (Chan & Elliot, 2004; Cheng et al., 2009).

In the context of the preceding information, Myanmar has undergone a curriculum reform in both basic education and teacher education since 2016, focusing on the constructivist approach. To ensure the effectiveness of this reform, it becomes crucial to comprehend the epistemological beliefs and teaching-learning conceptions of student teachers as these factors significantly influence the instructional strategies they adopt in their future classrooms. However, in Myanmar, there exists a substantial research gap concerning student teachers' TLCs as well as their EBs and the relationship between the two. Thus, it becomes imperative to investigate not only their epistemological beliefs and teaching-learning conceptions but also the connections between them.

To fill this gap, the authors have been conducting a mixed-methods sequential explanatory research project exploring Myanmar student teachers' EBs and TLCs. It is often challenging to capture a person's belief system, primarily because many teachers themselves may not be fully aware of their own beliefs (Kagan, 1992). Consequently, a more dependable way to describe these beliefs involves combining quantitative methods with qualitative research, which can provide deeper and more meaningful insights (McCrum, 2013). As a result, the mixed method approach has been embraced to address this research problem. This study is the pilot to the qualitative part of the aforementioned research.

Four research questions guide the larger mixed-methods research:

1. What are Myanmar student teachers' epistemological beliefs?
2. What are Myanmar student teachers' teaching-learning conceptions?
3. Is there any significant difference in the epistemological beliefs and teaching-learning conceptions of the student teachers according to their programs, gender, and subject specialization?
4. In what ways are the epistemological beliefs and teaching-learning conceptions of the student teachers related?

The findings from the quantitative part of the larger study indicated that student teachers have sophisticated epistemological beliefs (see in the last paragraph under “Epistemological Beliefs” section in the Literature Review) and constructivist teaching-learning perceptions. Significant differences in their beliefs and perceptions depending on their background programs were found, although there was no significant difference in these variables according to gender and subject specialization (Pyae Kyaw, 2022).

Literature review

Epistemological Beliefs

The exploration of personal epistemology was initiated by Perry in the 1970s, employing a developmental psychology approach. Perry's research primarily involved in-depth interviews with male Harvard undergraduates as the method for data collection. Perry's scheme of intellectual and ethical development proposed four key stages of epistemological development: dualism, multiplicity, relativism, and commitment within relativism (Hofer & Pintrich, 1997). Individuals commence their epistemological journey in a dualistic stage, where they perceive knowledge as either right or wrong and believe that knowledge is certain, typically obtained from authoritative sources. As individuals progress through life, they gradually shift towards a more relativistic viewpoint, acknowledging the inherent uncertainty in knowledge and developing a greater sense of agency in constructing their personal understanding. The ultimate stage of development is marked by committed relativism, where individuals commit to specific values while simultaneously recognizing the absence of absolute proof for knowledge claims (Chai & Khine, 2008).

Building upon previous research efforts, Schommer (1990) introduced Schommer Epistemological Questionnaire (SEQ). In her work, she proposed the idea that epistemological beliefs encompass multiple dimensions that can develop independently of each other (Buehl & Alexander, 2001; Hofer & Pintrich, 1997). Through the categorization of the 63 items into 12 subsets, she successfully identified four distinct factors: certain knowledge, simple knowledge, innate ability, and quick learning. Schommer's EBQ marked a pioneering milestone in assessing epistemological beliefs using a questionnaire format employing a Likert-type scale. Its development served as an influential model inspiring other researchers to create similar survey instruments, which facilitated group testing and the execution of surveys (Chan & Elliott, 2004).

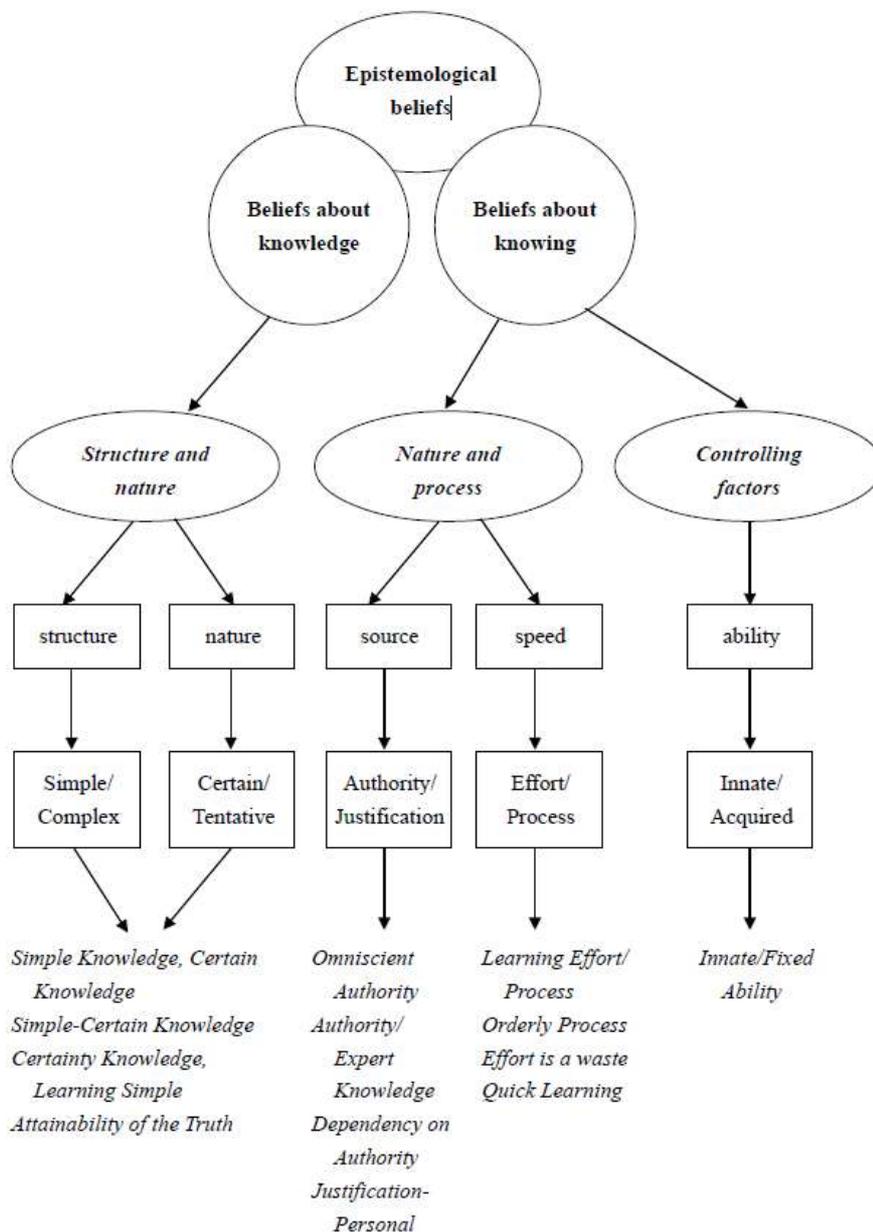
Despite her groundbreaking conceptualizations and assessments of epistemological beliefs, Schommer's work faced criticism for both reliability issues (Qian & Alvermann, 1995) and conceptual issues concerning her last two dimensions (Hofer & Pintrich, 1997). Buehl and Alexander (2001) also concurred with Hofer and Pintrich's critique of some items in the SEQ, which were not strictly epistemological in nature.

After Schommer's pioneering work, the research literature has seen the emergence of numerous hypothesized structures for epistemological beliefs. Researchers have reported mixed findings when it comes to the way epistemological beliefs are structured (Hofer & Pintrich, 1997). This has led to debates about how beliefs are organized. The reason for these conflicting results could be due to differences in how researchers conducted their studies, such as variations in the size and characteristics of the groups they studied, as well as differences in the epistemological beliefs of participants from various cultural backgrounds (Chan, 2006; Chan & Elliott, 2000, 2002; Schommer, 1990).

In 2006, Chan proposed a model that encompasses two key facets of epistemological beliefs: beliefs about knowledge and beliefs about knowing. (See Figure 1.) The former category covers beliefs related to the structure and nature of knowledge, while the latter encompasses beliefs concerning the process of acquiring knowledge and the factors influencing it. Within these facets, several dimensions of epistemological beliefs exist, which can be

applied to describe both common findings and variations in different cultural contexts (Chan, 2006).

Figure 1
Proposed Multidimensional Structure of Epistemological Beliefs: Integrating Findings on Beliefs Research Across Cultures



Source: Chan (2006, p. 145)

According to Chan and Elliot (2004), student teachers with naive epistemological beliefs perceive knowledge as certain, simple, and unchanging, often attributing its source to

authoritative figures such as group leaders, teachers, and parents. They tend to either grasp concepts quickly or struggle, assuming their learning capacity is innate and unchangeable. In contrast, individuals with advanced (sophisticated) epistemological beliefs, as indicated by references to Schommer (1990) and Başbay (2013), view knowledge as unpredictable, intricate, and fluid. They believe that learning abilities can improve through effort, recognizing knowledge construction as an ongoing and evolving process (Balta, 2018).

Teaching-Learning Conceptions

Teaching-learning conceptions, according to Chan and Elliot (2004), encompass how student teachers perceive the nature of teaching and learning, as well as the roles of students and teachers. These conceptions are linked to two distinct teaching-learning approaches: the traditional or transmissive approach and the progressive or constructivist approach to teaching and learning.

In the constructivist approach, the focus lies on establishing an interactive learning environment that fosters the development of students' creativity, critical thinking, collaboration, and problem-solving skills (Chan & Elliot, 2004; Cheng et al., 2009). On the other hand, the traditional approach to teaching and learning focusses on the transmission of information from teachers to students, relying on teacher-centred instructional strategies (Chan & Elliot, 2004).

In the constructivist perspective, teachers are expected to foster cooperation among students and motivate them to take ownership of their learning (Schunk, 2015). In contrast, the traditional view regards teachers as the primary source of knowledge, and students are seen as passive recipients of that knowledge (Chan & Elliot, 2004). However, the constructivist approach acknowledges that students play an active role in accessing, processing, and structuring information rather than merely receiving it passively (Uslu, 2018, p. 238).

Numerous educational studies have highlighted the significance of teachers' and students' conceptions of the teaching-learning process, showing a strong connection between these conceptions and academic achievement (Ozkal et al., 2009; Mohamed & El-Habbal, 2013; Tezci et al., 2016). Tezci et al. (2016) emphasized that understanding student teachers' conceptions of teaching and learning can greatly contribute to the successful implementation of educational reforms and effective teacher education programs. As teachers are responsible for implementing the curriculum in the classroom, the success of the reform process can be anticipated by examining their beliefs about the reform and their teaching-learning conceptions (Tezci et al., 2016).

How do epistemological beliefs and teaching-learning conceptions relate?

Numerous researchers have found a connection between teachers' epistemological beliefs and the teaching strategies they employ in the classroom, as well as their conceptions of the roles of teachers and students (Hashweh, 1996; Chan & Elliot, 2004; Aypay, 2010). Moreover, understanding epistemological beliefs is crucial in shaping the learning process of students. They have a profound impact on students' comprehension, cognitive processes, and the learning strategies they are inclined to use (Chan & Elliot, 2004; Cheng et al., 2009; Aypay, 2010).

A growing body of research indicates that teachers' conceptions of teaching and learning are influenced by their epistemological beliefs (Chan & Elliot, 2004; Aypay, 2011; Soleimani,

2020). Scholars such as Kitchener and King (1981), Ryan (1984), and Songer and Linn (1991) have directly linked individuals' epistemological beliefs to their comprehension, meta-comprehension, and interpretation of information (Er, 2013, p. 208). Moreover, Schommer (1998) has highlighted the mounting evidence of epistemological beliefs impacting academic performance. Er (2013) reaffirms Schommer's findings, emphasizing that these beliefs determine how individuals acquire and justify new information, their levels of comprehension, the learning strategies they adopt, and the time and effort they invest in learning.

The findings not only establish a clear relationship between epistemological beliefs (EBs), teaching and learning conceptions (TLCs), and academic performance but also suggest a notable association between teachers' epistemological beliefs and their classroom behaviours. This dual connection implies that the more sophisticated one's epistemological beliefs and the more constructivist their teaching and learning conceptions, the better their academic performance, which, in turn, influences their classroom behaviours. It appears important to explore these beliefs, as they seem to play a role in shaping teachers' perspectives on teaching and learning, potentially exerting a substantial influence on their classroom practices. Conversely, it is worth acknowledging that teachers' classroom experiences may reciprocally affect their beliefs. This interplay between beliefs and behaviours highlights the importance of understanding teachers' epistemological beliefs and teaching-learning conceptions (Cheng et al., 2009).

As student teachers transition into becoming educators, their epistemological beliefs and teaching-learning conceptions become even more critical. These beliefs and conceptions will guide their behaviours and teaching strategies in the future classrooms they lead. Therefore, gaining insight into student teachers' epistemological beliefs and teaching-learning conceptions, and making them aware of their underlying EBs and TLCs, and address those beliefs during the training with a view to changing them, becomes essential as they will ultimately affect the learning process, academic performance and achievement of their future students. By understanding and addressing these beliefs during their training, we can better prepare student teachers for their future roles as educators, fostering effective and impactful teaching practices.

Aims of the Pilot Study

The aims of the pilot study are firstly, to develop, assess and refine an interview protocol to see if the questions answered the depth and breadth of the main research questions; secondly, to see if the data gained may be rich enough to complement, further refine and enrich the quantitative data gained through the survey.

Methodology

Research Method

As generalized findings from a large population and a detailed in-depth view of the smaller sample of participants on the topic being studied are intended to be collected, a sequential, explanatory, mixed methods research is being applied for the larger study (Creswell, 2009). Quantitative data had been collected for all four research questions. To collect the qualitative data, semi-structured one-on-one interviews will be conducted. Based on the quantitative findings, an interview protocol is prepared to collect the qualitative data expecting to achieve both broad and deep understanding of the research problem.

The reasons for choosing semi-structured interview are (1) its flexibility to develop quick follow-up questions in the course of the interview if needed, (2) the ability it provides for the researcher to keep the interviews on track with the help of the interview protocol to make sure that the data collected can be compared with those from the surveys and the other interviews, and (3) the opportunity it offers to collect as much in-depth information as possible from the interviewees (Creswell, 2009). The interview schedule includes multiple data collection tools like interview questions, narratives, metaphors and vignettes to improve validity and to gather convergent evidence (Schraw, 2013).

Participants

Convenience sampling was utilized to select the participants, which included two student teachers and two doctoral students. The involvement of the doctoral students serves two purposes:

1. to provide supplementary perspectives and evaluations of the interview schedule, which would aid in enriching the overall responses to the interview questions, and
2. to pilot the impact of the different educational backgrounds on their epistemological beliefs (EBs) and teaching-learning conceptions (TLCs), as it pertains to the main research question 3.
- 3.

Table 1

Interviewees' profiles

| Participant | Status | Age | Teaching Experience |
|-------------|------------------|-----|---------------------|
| P1 | Doctoral Student | 31 | 9 yrs |
| P2 | Doctoral Student | 30 | 9 yrs |
| P3 | Student Teacher | 21 | 1 yr |
| P4 | Student Teacher | 21 | 1 yr |

Table 1 shows the profile of each interviewee. The two student teachers have one year of teaching experience: one of them worked as a teaching assistant in a private school, while the other provided private tutoring during the global pandemic when the universities were closed.

Development of the interview schedule

The initial draft of the interview protocol was developed based on the literature and the quantitative data findings. Following the four-phase process to develop and refine an interview protocol (Castillo-Montoya, 2016), the interview questions were ensured to be aligned with the research questions (see interview schedule and matrix in Appendix A and B) and complemented with personal narratives (about their favourite teacher), metaphors (choosing metaphors that represent the teacher and the student for them and explaining their choices), and vignettes (stories related to their EBs, TLCs, classroom practices). Some interview questions were rephrased and restructured to ensure they fostered inquiry-based conversations and were more easily understood by the participants. Feedbacks were received from three PhD students, who have knowledge on educational research and know both languages (English and Burmese) and from a well-experienced professor and changes in the interview questions were made accordingly. After finalizing the first version of the interview protocol, the pilot interviews were conducted to further refine this data collection tool.

Data Collection and Analysis

The pilot interviews were conducted online in Burmese, the official language of Myanmar. With the consent of the interviewees, the interview audios were recorded and stored in a password-secured laptop. The audio recordings were played again and again to help the researcher transcribe them. The transcribed data were then translated into English and send the translation back to the interviewees to check the accuracy of the data being translated and transcribed. The transcribed data were number coded as P1, P2, P3, and P4 for the anonymity and the confidentiality of the participants.

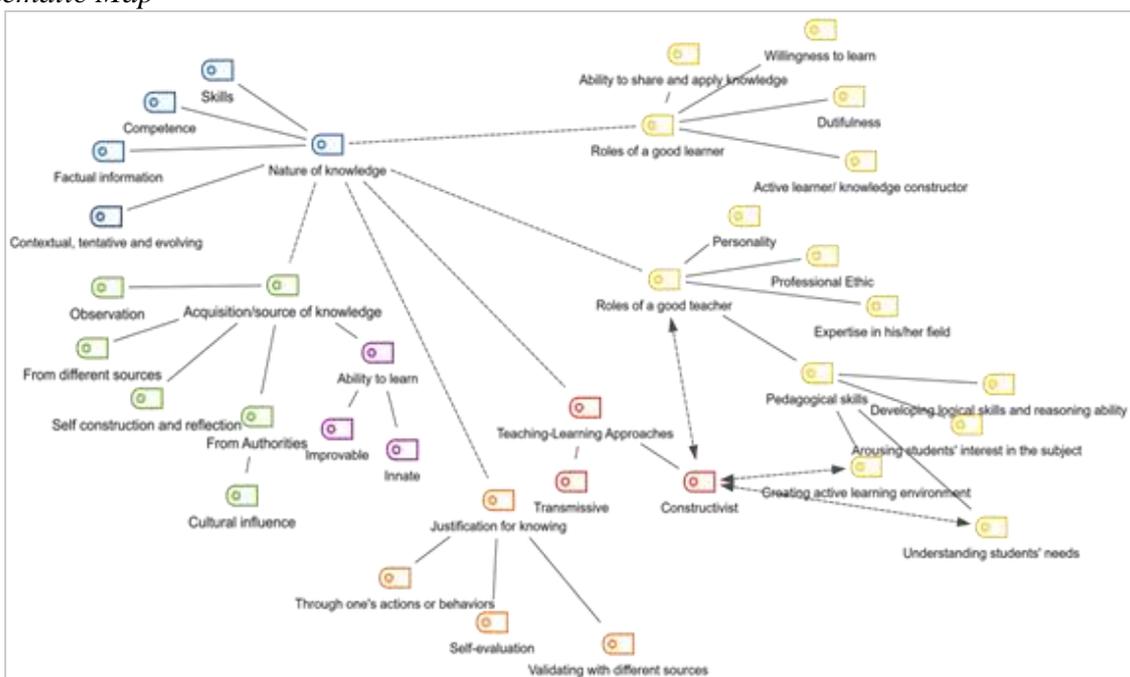
Thematic analysis was conducted on the data by applying Braun and Clarke's six-phase approach to TA (2012) and using MAXQDA 2022 as a supportive tool. A code system was created based on the theories and the conceptual framework of the research. After the first round of coding, some new codes were created and added to the code system. Finalizing the codes resulted in 141 codes, and 6 themes and 22 subthemes emerged. After considering the feedbacks from the interviewees and consulting with the doctoral supervisor, the interview protocol was revised for the main data collection.

Findings and Discussion

Epistemological Beliefs and Teaching-Learning Conceptions

After finalizing the coding, 6 themes emerged, namely, Nature of Knowledge, Acquisition of Knowledge, Justification of Knowing, Teaching-Learning Approaches, Roles of a Good Teacher, and Roles of a Good Learner. Figure 2 presents these 6 main themes, subthemes and the appearance of them on the thematic map. The findings on all these main themes are going to be discussed under the figure.

Figure 2
Thematic Map



Nature of Knowledge.

The nature of knowledge theme includes 4 subthemes: viewing knowledge as skills, competence or factual information and that knowledge is contextual, tentative and evolving. Table 3 shows what the participants believe about the nature of knowledge.

Table 3

Nature of Knowledge

| Participants | Nature of Knowledge |
|--------------|--|
| P1 | Knowledge is the information and facts that a person knows about something. It can change based on cultural perspectives and advancements in science. Some information found on the internet may not be reliable. Learning can lead to the development of knowledge and intelligence. |
| P2 | Knowledge is based on tested and proven facts, and can be observed through skills, behaviours, and attitudes. Acceptance of truth can change with time and circumstances, and even justified true beliefs can change over time. |
| P3 | Knowledge can be observed through speech, action, and application in real life situations. Acceptance of truth may change with time and circumstances due to constant advancements. Expertise can be seen in both teaching and personal application of knowledge. |
| P4 | Knowledge is the capacity to discern right from wrong and to apply what we know in real-life situations. It is a dynamic process, as our understanding and beliefs can evolve over time and with changing circumstances. |

P1 views knowledge as facts and information while P2, 3 and 4 hold the belief that knowledge is skills and competences. All the participants believe that knowledge is contextual, tentative and evolving as the time and circumstances change. This shows that the interview data may confirm the quantitative findings on student teachers having sophisticated EBs in the Certainty of Knowledge and the Simplicity of Knowledge dimensions.

Acquisition of Knowledge. Beliefs regarding the acquisition of knowledge revealed by the participants can be found in Table 4. Based on the interview data, it was found that the participants hold sophisticated beliefs regarding knowledge acquisition and the ability to learn, although they exhibited a high tendency to rely on authorities as their primary source of knowledge. This observation aligns with the quantitative findings, where the mean value for the source of knowledge dimension was the lowest among all five dimensions.

Table 4

Acquisition/Source of Knowledge

| Participants | Acquisition/Source of Knowledge |
|--------------|---|
| P1 | I can know something by reading, watching videos, googling, asking friends and colleagues, asking more experienced ones. I need a teacher to be able to learn something because I cannot know everything. |
| P2 | Observation and internet surfing can be sources of knowledge. A teacher is necessary for learning new topics , but self-study is sufficient for advancing knowledge. Validation can be done through personal observation, but it is impossible to question my teacher because of our culture. |
| P3 | I can know something by learning by myself, learning from someone who knows it very well , or living in the environment where people who know things live. I don't think I need a teacher to learn something because I can study by myself. |



P4 I can know something by deciding what I want to learn, analysing it, and verifying it with experts. While some things can be learned independently, it is **beneficial to seek guidance from experienced individuals when in doubt**.

As shown in Table 4, P1 said that knowledge can be acquired from different sources but on the contrary, a teacher is still needed to be able to learn something. P2 and P4 held a belief that knowledge can be acquired through observation and surfing internet, but a teacher is needed if they are to learn new topics. P2 even refers cultural barriers that prevent her from questioning teachers. These data suggest that fear of questioning teachers can hinder the acquisition of knowledge. Unlike others, P3 believes in the self-construction of knowledge and does not think that a teacher is needed.

All participants have the same beliefs on the improvable ability to learn (a subtheme under the theme; acquisition of knowledge), although P4 mentioned a different idea regarding learning content subjects: “unlike learning languages, it is not easy for some people to understand and remember things they are learning no matter how hard they try”.

Justification of Knowing. Participants mentioned that they justified knowledge through various means, such as reading books, searching the internet, validating information with a third person, or engaging in discussions with the teacher. All participants have similar beliefs on the justification of knowledge. In summary, the participants were found to have sophisticated EBs, although there are some inconsistencies within each participant’s belief system. For example, P1 seems to be holding a higher-level belief regarding Justification of Knowing compared to her EB in Nature of Knowledge, and Acquisition of Knowledge.

Teaching-Learning Approaches. The participants mentioned constructivist approaches to teaching and learning when asked about their preferred classroom activities except for P2. P2 expressed a deterministic perspective on teaching. While she does not believe in the idea of innate learning abilities, she does hold the belief that learning is contingent upon societal conditions. Table 5 shows their answers to the question asking how they will promote learning in their classroom.

Table 5
Teaching-Learning Approaches

| Question | How will you promote learning in your classroom? |
|--------------|--|
| Participants | Answers |
| P1 | I will promote learning in my classroom by linking the lesson with real life situations. In doing so, I will ask them to discuss how they will apply it in their life. |
| P2 | I don’t think I can promote learning because it is very difficult to make some students eager to learn. The teacher’s willingness to put effort in teaching greatly depends on the students’ willingness to learn. The students’ willingness to learn depends on their family backgrounds, their parents’ situation and their socio-economic status. |
| P3 | I would promote learning in my classroom by group work, field work, problem-based learning so that I can make sure that they are eager to learn and acquire the required knowledge. |
| P4 | I will apply question and answer method, group discussion, reflection on what we discussed, analysing their answers, and asking them questions at the end of the lesson to make sure that they comprehend the lesson. By doing so, I believe that they will learn happily, and this can improve learning. |



When asked about whether the teacher should respond to the individual needs of students, which is an important aspect of constructivist learning, all interviewees responded positively, mentioning their intention to use various strategies for this purpose. However, P4 highlighted environmental factors that hindered her ability to address the individual needs of her students and implement constructivist teaching approaches.

“I don’t think that I can respond to the individual needs of my students because of the big student-teacher ratio and insufficient time. I will be able to respond only to those students in serious needs.” (P4)

Here, mixed conceptions of traditional and constructivist teaching-learning approaches were found within the belief system of participants. For example, P1 mainly held the constructivist TLC but still mentioned traditional approaches by saying that “The students must follow the teacher’s instructions”.

Roles of a Good Teacher and a Good Learner. All participants responded to the question asking about the role of a good teacher saying she should be a guide or a facilitator. On the contrary, inconsistent answers were given when asked about the role of a good learner. Mixed with the constructivist perspectives, they responded evoking the traditional teacher-centred views as well, as it is revealed when they argue that good learners “must follow the teacher’s instructions, be open-minded to learn new things, be able to reflect themselves after the lesson” (P1), “must accept, question, think, brainstorm, and reflect the topic they are learning” (P2), “It is very difficult to obtain the knowledge that others have and to absorb what you are taught. I cannot take much from what I have been taught” (P3), and “should cooperate with the teacher and have learning readiness” (P4).

Metaphor and Narrative Analysis

In order to complement the interview questions, metaphors were used to visualize the participants’ beliefs and conceptions. By asking them to choose a metaphor that represents a teacher, the researcher can implicitly see their ideas of a good teacher and a student. “By using metaphors and visual images, educators can arrive at a deeper understanding of their role and responsibility as educators, the nature of education, and the relationships between the teacher and student.” (Clarken, 1997, p. 11)

P1 uses the metaphor of "Gardener" for the teacher and "Flowering Plants" for the students. In this metaphor, the teacher is seen as someone who provides care and support, but the growth of the students' knowledge depends on the students themselves. This aligns with a constructivist view where students are expected to construct their own knowledge. P2 also uses the "Gardener" metaphor, but in this case, the students are compared to "Seeds." The emphasis is on how well the teacher takes care of the students (seeds) for them to grow into knowledgeable individuals. This suggests a role for the teacher as a knowledge transmitter and the student as a passive receiver.

P3 uses the metaphor of "Friend" for both the teacher and the student, highlighting a more collaborative and process-oriented approach. The teacher and student are seen as equals, with the student leading the learning process. This aligns fully with the constructivist and student-

centred view. P4, like P1 and P2, uses the "Gardener" metaphor for the teacher but compares students to "Little stars." This metaphor emphasizes the potential for students to shine brightly with the knowledge they gain throughout their lives. However, it does not explicitly mention the teaching process, focusing more on the end product of knowledgeable students.

When we compare the results of the metaphor analysis with the participants' narratives about their favourite teachers gathered during the interviews, we find that based on her narrative it is only the last participant (P4) who clearly idealizes a constructivist teacher. The others appear to prioritize the traditional qualities of a transmission-based teacher, such as expertise in the subject, engaging teaching methods, and fair assessment practices. Notably, the two PhD students, P1 and P2, lean more towards the transmission model, while P4 demonstrates a stronger inclination towards the constructivist approach. However, there is a noteworthy contradiction in P3's case. Although P3 uses the metaphor of a "friend," suggesting a constructivist perspective, the teacher described in her narrative is undeniably excellent in the transmission paradigm.

In P1's narrative, the teacher is described as an expert and ethical person, highlighting traditional teacher virtues. This narrative stands in partial contrast with P1's metaphor, where the teacher is seen as a knowledge transmitter, while the student is a knowledge constructor. P2's narrative also emphasizes the teacher's teaching skills and the ability to make subjects interesting. This aligns with the teacher as a knowledge transmitter role, which stands in line with the traditional perspective suggested by P2's metaphor. P3's narrative praises the history professor for mastery in the subject and the ability to make learning enjoyable. However, the professor is described as an excellent teacher in the transmission paradigm, which contrasts with the metaphor of the teacher as a "Friend" and the student-led learning process P3 described. In P4's narrative, the mathematics teacher is admired for encouraging students to find their own solutions and develop logical skills. This narrative is more aligned with the constructivist ideal, which contrasts with the "Gardener" metaphor P4 provided. Overall, there is a certain disconnect between the metaphors used by the participants and their narratives about their favourite teachers. This disconnect highlights the complexity of the epistemological beliefs system and teaching-learning conceptions.

Revision based on the pilot findings

To address the potential impact of teaching experience on participants' Epistemological Beliefs (EBs) and Teaching and Learning Conceptions (TLCs), a new question about their teaching experience was included in the opening questions. This addition was motivated by the pilot findings, which indicated that the differences in EBs and TLCs might be influenced by the length of teaching experience as the two PhD students with longer teaching experience appeared to exhibit slightly less sophisticated EBs and TLCs when we consider their individual profiles, in contrast to the student teachers. Furthermore, some questions (e.g., Q8, 9 and 10) were rephrased to make them more direct or accessible, and follow-up questions were added to questions 4, 10, and 11 to gather more detailed information. After checking the pilot

transcripts, it was found that adding further probing questions to the interview protocol could be helpful.

Conclusion

After conducting pilot interviews and analysing the data, the interview schedule is found to be suitable to answer the depth and breadth of the main research questions. However, based on the pilot findings, further probing questions were added to the interview protocol when finalizing it for the main data collection.

The data gathered from the interview can be rich enough to answer the research questions and to confirm, complement and enrich the quantitative findings. The pilot interview data seems to confirm the quantitative data findings, which showed that Myanmar student teachers mostly have sophisticated EBs and constructivist TLCs. However, inconsistencies within each participant's belief system were found, which are new findings enriching and refining the picture gained from the quantitative data. Each participant has a unique profile in terms of their EBs and TLCs, which the quantitative data did not reveal. This finding not only highlights the inconsistencies within each participant's belief system, but also underscores the differences between their belief systems, each having an individual profile. The emergence of the "cultural influences" subtheme in the interview data can potentially explain why the participants of the survey were found to have less sophisticated EB regarding the source of knowledge and this clearly complements the quantitative data. Existing literature on this topic has highlighted the cultural specificity of epistemological beliefs and called for further research in different cultural contexts (Chai et al., 2010; Hofer & Pintrich, 1997). The bigger research aims to expand the scope of research and add new knowledge in this area.

References

- Alsumait, D. S. (2015). The Epistemological Beliefs of Undergraduates towards Information Science. School of Information Systems, Computing and Mathematics, Brunei University.
- Apyay, A. (2010). Teacher education student's epistemological beliefs and their conceptions about teaching and learning. *Procedia Social and Behavioral Sciences*, 2, 2599-2604.
- Apyay, A. (2011). The adaptation of the teaching-learning conceptions questionnaire and its relationships with epistemological beliefs. *Educational Sciences: Theory & Practice*, 11(1), 21-29.
- Aslan, C. (2017). Examining epistemological beliefs of teacher candidates according to various variables. *Eurasian Journal of Educational Research*, 67, 37-50.
- Balta, E. E. (2018). Reflective thinking tendencies and epistemological beliefs in terms of learning styles. *International Journal of Higher Education*, 7(6), 106-117.
- Buehl, M. M., & Alexander, P. A. (2001). Beliefs About Academic Knowledge. *Educational Psychology Review*, 13(4), 385-418.
- Chan, K. W., & Elliott, R. G. (2000). Exploratory study of epistemological beliefs of Hong Kong teacher education students: Resolving conceptual and empirical issues. *Asia Pacific Journal of Teacher Education*, 28(3), 225-234.



- Chan, K. W., & Elliott, R. G. (2002). Exploratory study of Hong Kong teacher education students' epistemological beliefs—Cultural perspectives and implications on beliefs research. *Contemporary Educational Psychology*, 27(3), 392–414.
- Chan, K. W. (2001). Validation of a Measure of Personal Theories about Teaching and Learning. AARE 2001 International Education Research Conference, Perth. <https://www.aare.edu.au/data/publications/2001/cha01062.pdf>
- Chan, K. W. & Elliot, R. G. (2004). Relational analysis of personal epistemology and conceptions about teaching and learning. *Teaching and Teacher Education*, 20, 817-831.
- Chan, K.-W. (2006). The Structure and Nature of Epistemological Beliefs: Implications From Literature Review and Syntheses of Research Findings. *Journal of Psychology in Chinese Societies*, 7(1), 141–161.
- Cheng, M. M. H., Chan, K. W., Tang, S. Y. F. & Cheng, A. Y. N. (2009). Pre-service teacher education students' epistemological beliefs and their conceptions of teaching. *Teaching and Teacher Education*, 25, 319-327.
- Cheng, A. Y. N., Tang, S. Y.F., & Cheng, M. M. H. (2015). Changing conceptions of teaching: A four-year learning journey for student teachers. *Teachers and Teaching*, 22(2), 177-197. <https://doi.org/10.1080/13540602.2015.1055437>
- Clarcken, R. H. (1997). Five metaphors for educators. *Paper Presented at the Annual Meeting of the American Educational Research Association*, 2–11.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative and mixed method approaches* (3rd ed.). Sage Publications.
- Castillo-Montoya, M. (2016). Preparing for Interview Research: The Interview Protocol Refinement Framework. *The Qualitative Report*, 21(5), 811-831. <http://doi.org/10.46743/2160-3715/2016.2337>
- Duffy, G. & Roehler, L. (1986). Constraints on teacher change. *Journal of Teacher Education*, 35, 55-58.
- Er, K.O. (2013). A Study of the Epistemological Beliefs of Teacher Candidates in Terms of Various Variables. *Eğitim Araştırmaları - Eurasian Journal of Educational Research*, 50, 207-226. <https://ro.uow.edu.au/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=5716&context=theses>
- European Commission, (2019). *Education and Training Monitor 2019*. European Union.
- Hofer, B. K., & Pintrich, P. R. (1997). The Development of Epistemological Theories: Beliefs About Knowledge and Knowing and Their Relation to Learning. *Review of Educational Research*, 67(1), 88–140.
- Hofer, B. K. (2000). Dimensionality and disciplinary differences in personal epistemology. *Contemporary Educational Psychology*, 25, 378-405. <https://www.sciencedirect.com/science/article/abs/pii/S0361476X99910263>



- Mohamed, M. T., & El-Habbal, M. (2013). The relationship between epistemic beliefs and academic performance: Are better students always more mature? *Journal of Educational and Developmental Psychology*, 3(1), 158-172.
- NESP. (2016). National Education Strategic Plan 2016-21 Summary. The Government of the Republic of the Union of Myanmar, Ministry of Education.
- Ozkal, K., Tekkaya, C., Cakiroglu, J. & Sungur, S. (2009). A conceptual model of relationships among constructivist learning environment conceptions, epistemological beliefs, and learning approaches. *Learning and Individual Differences*, 19, 71-79.
- Qian, G., & Alvermann, D. (1995). Role of epistemological beliefs and learned helplessness in secondary school students' learning science concepts from text. *Journal of Educational Psychology*, 87(2), 282-292. <https://doi.org/10.1037/0022-0663.87.2.282>
- Schommer, M. (1990). Effects of beliefs about the nature of knowledge on comprehension. *Journal of Educational Psychology*, 82, 498-504.
- Soleimani, N. (2020). ELT teachers' epistemological beliefs and dominant teaching style: A mixed method research. *Asian-Pacific Journal of Second and Foreign Language Education*, 5(1), 12. <https://doi.org/10.1186/s40862-020-00094-y>

Appendix A

The Interview Protocol

1. What does the word "Knowledge" mean to you? (RQ 1)
Follow-up: What types of knowledge do you know of? (If they cannot give a concrete answer to the main question.)
2. How do you know that somebody knows something? (RQ 1)
3. Do you think what you accept as true might change as the time passes and/or circumstances change? Why or why not? (RQ 1)
Follow-up: Do you think there is only one truth or several truths about the same thing? Give me an example.
4. In what ways can you get to know something? (RQ 1) List all the ways you can think of.
 - (a) Do you need a teacher to be able to learn something? Why or why not?
 - (b) Have you ever encountered a situation when you doubted what your teacher said was right? What did you do in that situation?
 - (c) Imagine that you are a teacher in the above situation and your student confronts your idea or challenges your knowledge. What will you do, how will you react? Do you expect the same attitude and behavior as in your answer for Q4(b)?
5. A. Two of your friends are having a conversation. Both of them got low grades in an English proficiency test. Whom do you agree with? Why? (RQ 1)
Thida: I keep getting poor grades no matter how hard I try. I still don't get the hang of it. I will never acquire the English language since I was not born with linguistic ability. My friends who get high grades in English tests and are able to speak, read, write and understand English were born with innate ability to learn language. I wish I had that ability.
Nilar: I got poor grades, but I didn't fail in English test because I put a lot of effort into learning English although I don't have language learning ability. If I try harder, I can get better marks and my English skills will also improve. It doesn't matter how hard the subject is. We can succeed in learning every subject if we try hard.



B. The other two friends are

also having a conversation. Both of them got low grades in Mathematics. Whom do you agree with? Why? (RQ 1)

Thura: I failed Mathematics last month because I don't have the innate ability to learn. I tried hard in learning Mathematics this month and as a result of it, I passed the exam. If I try harder, I am sure that I will get high marks in it. I believe that our knowledge and intelligence can develop through learning.

Thiha: I keep getting poor grades no matter how hard I try. Since I was not born smart, I will never get high marks in Mathematics nor pass the exam with flying colors.

6. Do you think that your intelligence is fixed, i.e., you were born with this much IQ and you will have the same IQ for the rest of your life or do you think that people can develop the IQ they were born with? Give me your reason with an example.

7. Tell me about your favorite teacher. (RQ 2)

a. Why do you think he/she is a good teacher?

b. What makes a good teacher in general?

8. What qualities do you think make a good learner? (RQ 2)

9. What does a teacher have to do to make learning occur? (RQ 2)

10. What does a student have to do to make learning occur? (RQ 2)

11. Do you think teachers should respond to the individual needs of students? If yes, how? If not, why not? If the answer is to a certain extent, why to a certain extent only? (RQ2)

Follow-up: Mention some possible ways this can be done in practice.

12. Which components are more important in teacher training: subject matter, educational theory, educational psychology, methodology or the teaching practicum? Put them in a rank order where the most important one stays at the top followed by the less important ones. Give reasons for your choices. You cannot put two subjects in the same rank. (RQ 2)

13. Which of these metaphors represents a teacher for you; an actor, a gardener, a coach, a lighthouse, an animal trainer, a conductor of an orchestra, a sculptor, a second parent, a compass? You can also give me your own metaphor. If the teacher is a metaphor you chose, then what would the student be? (RQ4)

14. As a teacher, how would you promote learning in your classroom? How would you make sure your learners improve their knowledge? (RQ 4)

15. Vignettes

A. "You are implementing modern teaching methods that you have learned at the university and the students are enjoying them. But the principal and the parents do not think that you are teaching the students. They see your teaching style as a game where the teacher and the students are just playing together and not learning anything. They also think this might affect the students' exam scores at the final, state administered exam. Now they are discussing their concerns with you at the parent-teacher meeting which is held quarterly. What will you do? How will you react?"

As a teacher, you encouraged students to work in a team and you graded them according to their performance in the team. A student complains that he got a poor grade because he is an introvert and he was not active in the class during the group activity. He believes that he can do better if he is allowed to work alone. He asked you to consider a different grading system as the one you used is unfair for him. How will you react?

Appendix B

Interview Schedule Matrix

| | Research Question 1 | Research Question 2 | Research Question 3 | Research Question 4 |
|---------------|------------------------|------------------------|------------------------|------------------------|
| Interview Q 1 | ✓ | | ✓ | |
| Interview Q 2 | ✓ | | ✓ | |



| | | | | |
|----------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Interview Q 3 | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | |
| Interview Q 4 | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | |
| Interview Q 5 | <input checked="" type="checkbox"/> | | <input checked="" type="checkbox"/> | |
| Interview Q 6 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Interview Q 7 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Interview Q 8 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Interview Q 9 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Interview Q 10 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Interview Q 11 | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Interview Q 12 | | | | <input checked="" type="checkbox"/> |
| Interview Q 13 | | | | <input checked="" type="checkbox"/> |
| Interview Q 14 | | | | <input checked="" type="checkbox"/> |
| Interview Q 15 | | | | <input checked="" type="checkbox"/> |

**TEACHERS' AND TEACHER EDUCATORS'
LEARNING AND PROFESSIONAL
DEVELOPMENT**

1. COMMUNITY FORUMS: TOWARDS A PARTICIPATORY METHODOLOGY FOR TEACHER PROFESSIONAL DEVELOPMENT

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Abstract

This paper is based on a series of diagnostic workshops focusing on how participatory methodology can inform English Language Teaching (ELT) Teacher Education. The workshops provided participants with experience of participatory methodology and techniques to elicit feedback on their pedagogic value and efficacy in Teacher Education. Through dialogue and reflection, participants identify the facilitation skills they value from the workshops. While participatory methodology has a long and proven track record in teaching, it is rarely utilized in teacher development programs. We explored the use of Community Forums (an adaptation of Forum Theatre) in which participants re-enact collectively experienced challenges to find solutions. Feedback from the workshops reveals that Community Forums provide participant-led, solution-oriented, multiple-voiced opportunities for reflection and dialogue on critical incidents teachers face. Additionally, the workshops aim to develop participants' facilitation skills. The research provides the initial template for creating teacher development programs incorporating Community Forums and participatory methods.

Keywords: *Teacher Development, Community Forums, Forum Theatre, performative methodology, teacher education.*

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Introduction

Working within an educational training center in Istanbul offering pre-service and in-service teacher education, I work with teachers who embody traits of self-awareness, reflection, collaboration, inter- and intrapersonal adeptness, adaptability, and the ability to navigate linguistic and cultural diversity. Furthermore, teachers in this context are tasked with performing these roles in languages that are not their native tongue. These performative dimensions of teaching often remain unaddressed in traditional teacher education, which tends to lean heavily towards a cognitive and instrumental approach rather than embracing the holistic concept of "teaching and learning with head, heart, hands, and feet" as proposed by Schewe (2013, p. 7).

With over four decades of experience in teacher training, I have had the privilege to observe numerous lessons, and a common theme emerges – the prevalence of what I term the 'competence' model of teaching. These lessons are meticulously planned, centered on specific objectives, and focus on content delivery and practice. A far rarer sight is what I term the

'performance' model of teaching which is characterized by learner-centeredness, open-ended activities, and active learner participation. The 'performance' model demands strong facilitation skills, but most teachers tend to gravitate towards the 'competence' model, perhaps due to the lack of support in developing facilitation skills.

This observation has prompted a series of questions: What are facilitation skills, and how can they be cultivated? As Ruitenberg (2007) aptly points out, "Teaching is performative; it unfolds as embodied and enacted responses, in the moment," contrasting with traditional academic knowledge typically conveyed through words and numbers, which is disembodied. This propositional knowledge, while essential, can only take teachers so far. (Nelson, 2013).

The need for enhanced facilitation skills became acutely evident during a recent workshop I conducted on 'Social and Emotional Learning' at a prominent school in Istanbul. Although the workshop appeared engaging and participatory, post-workshop discussions revealed a common disconnect:

Me: Did you enjoy the workshop?

Participant: Oh yes, thank you. It was a lot of fun.

Me: Would you consider using any of these activities in your class?

Participant: (looking quizzical) Err... no, I do not think so.

Me: Why not?

Responses normally range from time constraints, strict curriculum adherence, limited experience, concerns about student behavior, disparate teaching styles, and the fear of potential chaos or parental complaints. This raises the question of why these pressing issues are not being addressed in professional development sessions.

This situation highlights the pressing need for a structured framework and methodology for participant-led, solution-oriented teacher professional development. One promising avenue, in my perspective, is the development of facilitation skills for teacher educators. Facilitation, as a mode of expression, encourages shared decision-making, stimulates dialogue, fosters reflection, and cultivates a sense of community. Therefore, I embarked on a series of workshops aimed at nurturing facilitation skills among teachers at our Istanbul training center.

In this performative domain, teaching becomes an action-based heuristic, influenced by real-time contingencies, and marked by improvisation, physical and emotional engagement, and the emergence of learning. I am drawn to Wahl's (2011) argument, which draws parallels between teaching and performing, suggesting that teachers are well-versed in instructing but often fall short of emotionally engaging their students. Audiences, as Wahl posits, expect to 'feel,' so should students (Wahl, 2011, p. 21).

To encapsulate this approach, I employ the term 'Applied Theatre' (AT) as an umbrella descriptor for a range of drama games and activities, including 'Forum Theatre.' These activities are characterized by participant-led experiences fictionalized for educational purposes, allowing for an exploration of solutions in a dramatized setting, creating a 'no penalty' zone, as Heathcote (quoted in Johnson & O'Neill, 1984, p. 130) suggests. Such experiential learning aligns with Vygotsky's (1986) theories, acknowledging the interconnectedness of affective and cognitive domains and the role of lived experiences in meaning-making.

Literature Review

Sir Ken Robinson's iconic TED talk in 2006 urged a paradigm shift in our perception of teaching, framing educators as facilitators of learning rather than mere purveyors of

knowledge. This shift prompts us to examine the nuanced interplay of behaviors and interactions between teachers and students.

In the pursuit of enhancing teaching practices, it becomes evident that teacher development must also include provision for building self-awareness. Identity has long been a focal point in the realms of social sciences and humanities (Bendle, 2002) and education (Gee, 2000) due to its intimate connection with beliefs and behavioral transformations. Developing self-awareness and self-identity entails an exploration of one's teaching persona, encompassing questions about who you are as a teacher and the type of teacher you aspire to become. As Price (1999) aptly suggests, "discourse is seen as a practice in which both discourse and subject are performatively realized." The concept of teacher identity has evolved beyond technical competence to encompass a broader spectrum of social roles, relationships, and community affiliations (Piazzoli, 2013), where personal agency dynamically interacts with external influences.

The idea that learning is intrinsically tied to action, an ideology championed by luminaries like Rousseau and Locke, resonates with pedagogical philosophies propagated by Progressive Education proponents like John Dewey and Vygotsky. These visionaries emphasized the significance of embodied social interaction and play as fundamental elements of the learning process.

While the historical roots of drama in education run deep, contemporary research on performative approaches in Teacher Education remains limited. Exceptions include Even (2020) who posits that the art of teaching lies in a teacher's imagination and their readiness to embrace the unpredictability of the learning process. Meanwhile, Lutzker's (2007) research highlights the need for teacher development to focus on the holistic development of the embodied teacher, with a particular emphasis on the intrinsic connection between a teacher's physical demeanor and their imaginative and emotional dimensions.

In educational and training settings, there is substantial potential to explore the intricate intersection of human experiences and emotions with Teacher Education. Applied Theatre offers a unique avenue for participants to 'feel' and express emotions not merely as 'raw' feelings but as re-enacted experiences that stimulate learning.

In my pursuit of establishing a framework and methodology for participant-led, solution-oriented teacher professional development, I turned to the work of Augusto Boal, the Brazilian dramatist. Central to Boal's (2022) educational philosophy is the idea that learning commences with an awareness of the present context and demands reflection and action (praxis) to bring about change. While Boal employs theatre as a medium for this transformation, the underlying philosophy aligns closely with my vision of teacher development.

A cornerstone of Boal's philosophy is "forum theatre." This practice empowers participants to grapple with real-life challenges by intervening in scenes and proposing alternative courses of action. Boal drew inspiration from the pedagogue Paulo Freire, who sought to liberate individuals from the constraints of ignorance and empower them to become agents of change in their own lives. Freire's emphasis on dialogue and critical thinking in the learning process strongly resonates with teacher educators.

These participatory arts, rooted in Paulo Freire's (1970) participatory education model and Boal's Forum Theatre, provide a platform for expression that fosters collaborative decision-making processes, dialogue, self-reflection, and community introspection. Guided by the principles of Forum Theatre, I have embarked on the utilization of participatory methodologies in teacher professional development through a series of workshops at our teacher training

center in Istanbul. These workshops adapt Forum Theatre concepts to unearth authentic teacher experiences, thus fueling community discourse and problem-solving. Community Forums (an adaptation of Forum Theatre) serve as a structured framework to elucidate participants' understanding of their circumstances and provide avenues for generating solutions, offering a powerful approach to address the multifaceted challenges of teacher professional development.

Methods

Believing that effective teaching is an embodied and dynamic process, one that thrives on physical presence and emotional engagement, I embarked on a series of workshops designed to explore the potential impact of Applied Theatre on Teacher Education. These workshops aimed to explore the performative aspects of teaching, hoping to unearth the skills that enable educators to create interactive and dynamic learning environments. In particular, the objective was to foster critical reflection and dialogue among participants, encouraging them to provide feedback on the effectiveness of the activities in the context of Teacher Education. The aim was to facilitate the identification of specific performative skills that teachers can employ in their practice. Additionally, these workshops offered participants the opportunity to develop facilitation skills, empowering them to run similar workshops in the future. These objectives are summarized below:

1. Diagnostic - Engage with Applied Theatre (AT) activities and assess their effectiveness in Teacher Education (TE).
2. Methodological - Evaluate the utility of Forum Theatre in TE.
3. Pedagogical - Identify performative skills relevant to TE through reflection and dialogue.
4. Transformational - Equip participants with facilitation skills.

To maximize accessibility for working teachers, we advertised three 3-hour workshops, held on consecutive Saturday afternoons at a private teacher training center in Istanbul. The workshops were described as follows:

Workshop Description: These workshops focus on developing facilitation skills, which are essential in any setting involving people interacting and discussing ideas to drive change. We will explore embodied approaches to professional development, including team building, building trust, enhancing engagement, promoting collaboration, and encouraging personal disclosure, along with other performative skills. Drawing inspiration from the work of Brazilian dramatist Augusto Boal, we will employ techniques based on Forum Theatre to delve into professional development. Participants will receive a certificate upon completion of the course.

Twelve participants, all practicing English Language teachers, registered for these workshops, representing diverse backgrounds (United States - 3, Britain - 2, Iran - 4, Turkey - 2, and Russia - 1), with the majority being female. Ahead of the workshops, an information email was sent, outlining the use of drama activities and techniques and the exploration of the experiences of ELT teachers, including their fears, hopes, and dreams. This email also detailed the plan to present our findings regarding the 'essence' of an ELT teacher in a discussion after the final

workshop. Participants were informed that they would be asked to write reflections after each workshop and participate in 15–20-minute focus group interviews. Furthermore, all workshops were filmed, and participants were invited to sign a consent form granting permission for the data collected to be used in any subsequent dissemination of findings.

The workshops followed a structured approach involving three primary components:

Games and Participatory Activities: I selected theatre games and activities based on their potential to benefit teacher development, focusing on problem-solving activities that promote collaboration, rapport, and team building, self-awareness, trust-building, and awareness of others. The activities were also chosen with the intent of potential adaptation for participants' classrooms, avoiding any demands for 'acting a role.' This approach aimed to stimulate reflections on self-identity rather than encouraging imaginary creations. The primary source for these activities was Boal's (2022) 'Games for Actors and Non-Actors.' Notably, participants found the reflection post-activity highly valuable, offering them an opportunity to reflect on their behavior during the activity, their reactions, and their interactions with others, connecting these experiences to their identity. For video clips of the activities used please click on this link: <https://youtu.be/H8VoyPEilhE>

Forum Theatre: The structure of the workshops drew inspiration from Augusto Boal's Forum Theatre (FT), emphasizing active participation and the incorporation of personal narratives and experiences from participants. This approach aligned with the notion that sharing personal stories can function as a catalyst for teacher development, promoting critical thinking and self-awareness. The Forum Theatre spanned three workshops, which can be summarized as follows:

Workshop 1 - Tilling the Soil: Participants embarked on a journey of self-disclosure, taking their partners on an imaginary tour of their birthplace. We celebrated the rewards of teaching and shared stories of positive achievements. These stories served as the basis for re-enacting these positive experiences through image theatre. Subsequently, we repeated the cycle, this time focusing on the challenges, obstacles, difficulties, and concerns faced by ELT teachers. The challenges were categorized into three groups: internal, contextual, and external.

Workshop 2 - Sowing the Seeds: Participants concentrated on devising material for Forum Theatre scenarios. Techniques like 'Step forward if you (have self-doubts/feel overloaded with work)' were employed to elicit personal narratives and experiences. Sharing these experiences served to demonstrate that many problems are shared among teachers. Stories of stress and challenge were associated with specific sounds and body postures and shared within their respective groups. Groups selected one story resonating with all members, creating and rehearsing the re-enactment with the original story's protagonist acting as the facilitator. By the end of this workshop, we had six scenarios, each with a designated facilitator/director.

Workshop 3 - Blooming: This session focused on developing facilitation skills and rehearsing the Forum scenes. Participants re-enacted their scenarios to other groups, who were invited by facilitators/directors to intervene and propose solutions to the issues presented. The role of the facilitator was crucial, with a focus on guiding audience intervention without explaining or interpreting the scenario, ensuring the emphasis remained on action rather than discussion. These scenarios were later presented to an audience in the Community Forum, aiming to

stimulate discussion, reflection, and debate among the participants and encourage contributions of solutions to the issues presented.

Reflection and Dialogue: Reflection stages were incorporated after each activity and at the end of each workshop. Data collection aimed to provide an in-depth understanding of participants' perspectives on the theatre games and Forum Theatre. Written feedback questionnaires were administered and focus group interviews were conducted after each workshop. Audience members attending the Forum presentation were also invited to complete a reflection form. For video clips of the Forum theatre click on this link: <https://youtu.be/CJnw0gR5TTk>

These workshops represent a potential framework and methodology for participant-led, solution-oriented teacher professional development. Applied Theatre, with its participatory approach, offers a platform for shared decision-making, fostering dialogue, reflection, and community cohesion. The techniques employed aimed to enhance participants' understanding of their situations and facilitate actions to address them, making this methodology both the object of research and the means to provoke reflection and gather data.

Results

The workshops we conducted provided a nurturing environment, allowing participants to openly discuss the multifaceted challenges they encounter in their lives. These challenges were categorized by participants into three main groups: internal challenges, external challenges, and contextual or systemic challenges. Using this framework, we analyzed the collected data to identify specific skills participants found valuable in addressing these challenges.

A. Internal Challenges: Self-Awareness and Self-Identity In response to prompts about the skills necessary to overcome internal challenges in their feedback reflections, participants emphasized intrapersonal skills, including active listening, the development of self-confidence and self-esteem, nurturing a healthy body, and letting go of the pursuit of perfection. The data frequently mentioned the words 'fun' and 'enjoyment,' with comments like "it was really good to relax." Many participants shared how the activities increased their self-awareness, with statements like "Moving around and becoming more aware of my body and how I can use it to express emotions/concepts." Sensory awareness and understanding emotions were integral to this self-awareness, as participants found value in reading emotions in the room. The workshops consistently reinforced the concept of being present, emptying one's mind, and heightening sensory perception. This aligns with Brook's (1968) notion of the infinite possibilities of emptiness, suggesting the importance of freeing one's mind and heightening sensory dimensions. Lutzker (2007) emphasized the significance of sensory and affective experience in influencing behavior, emphasizing the need to focus on this aspect of teacher development.

A powerful example illustrating the importance of self-awareness and the internal conflicts that drama activities can provoke was the activity 'Blind Trust.' In this exercise, one partner closed their eyes while the other guided them on an imaginary journey around the room. Several participants found it challenging to keep their eyes closed. One participant openly shared a personal struggle, revealing, "I find it very difficult to close my eyes and just do whatever I

need to do. I do not think it had to do with a lack of trust in you guys or others... I honestly think it's a big thing for me, to close my eyes." This observation encapsulates the complex internal struggles that drama activities can provoke and raises questions about how one can resolve these internal conflicts and gain control over intrusive thoughts.

B. External Challenges: Awareness of Others External challenges encompass pressures exerted by others, including management, demanding parents, hyperactive or spoiled learners, and toxic colleagues. An activity that stimulated reflection on external challenges was 'Bomb and Shield,' which prompted participants to mentally select someone to represent a 'bomb' (someone to avoid) and someone as their 'shield' (someone who can protect them from the bomb). Through this activity, participants explored questions such as, "What could be a bomb for a teacher?" and "What are shields for teachers?" This activity exemplifies the aim of many participatory drama activities, providing a space for personal disclosure, encouraging sharing, inspiration, mutual support, and integration into a social group. Recognizing and enhancing awareness of the needs and presence of others emerged as a valuable skill for teachers. Participants emphasized the importance of interaction, collaboration, and sharing, with one participant stating, "We should listen to our colleagues for new ideas." Furthermore, the necessity of 'people skills' and 'self-skills' was acknowledged. People skills mentioned included the ability to say 'no,' building sympathy and empathy for learners, and seeking help when needed.

C. Contextual and Systemic Challenges: Awareness of Context The most significant category of challenges identified by participants is related to contextual and systemic factors. These challenges encompassed issues such as large mixed-level groups, inappropriate methodologies, intensive curriculums, inadequate breaks, strict regulations, communication barriers, low pay, and cultural differences. Participants recognized the situated nature of teaching, emphasizing the importance of being always aware of their surroundings. The premise of theatre activities and Forum Theatre is to provide a platform for marginalized voices to be heard, raise awareness of cultural and social pressures, and re-examine the dominant discourse in pursuit of change. Many comments in the written reflections underscored the need for survival through maintaining a work/life balance, managing time and stress, and engaging in diplomatic negotiations with institutions. Fels (2004) summarized this perspective, highlighting that "a classroom and its emergent curriculum is a complex emergent system of interactions and interrelationships brought forth by teachers and students together within a context and environment." Participants also commented on the impact of the atmosphere and energy in the room, noting that these activities changed the energy and created an environment free from judgment. Van Manon's (2016) perspective on teaching success being closely related to embodied thoughtfulness and relational atmosphere resonated with our participants, who found value in the personal space and mood created during the workshops.

Developing Meta-Performative Skills

Defining Meta-Performative Skills

The exploration of identity holds a significant place in the realms of social sciences, humanities, and education due to the intricate relationship between one's identity, beliefs, and

behavioral patterns. Understanding self-awareness and self-identity entails reflecting on who one is, why one has chosen the path of teaching, and the kind of educator one aspires to become.

As Price (1999:582) astutely notes, 'discourse is seen as a practice in which both discourse and subject are performatively realized,' emphasizing that identity is constructed through actions. In the context of our Applied Theatre (AT) workshops, we observed how the activities facilitated the elicitation of personal narratives, reflections, and insights, shedding light on the nature of participants' identities. Participants were invited to reflect on why they act the way they do, exploring the connections between their actions and their identities. As one participant aptly expressed, "I appreciated the comments that encouraged us to reflect and relate what we did to our lives." Another participant found the activities relevant to their life, noting, "The section 'cat and mouse' was impressive for me because I liked the perception behind being chased or chasing; this relates to my current life." These reflective skills, which engage with the performative aspects of one's identity, are what I refer to as 'meta-performative.'

Identifying Meta-Performative Skills

A recurring theme in the feedback comments revolved around the need for a safe space that also allowed for self-expression. One participant eloquently described this need, saying, "I feel protection from both sides, from myself and also protection from others."

Participants also reflected on their preferences in guided or guiding roles, whether they felt more comfortable being chased or being the chaser. One participant succinctly expressed their preference, "I kind of felt more comfortable being the guide, not being chased, and being the mouse was a bit scarier than being the cat."

The Nature of Reflection

Conventional teacher education literature often portrays reflective practice as a solitary endeavor, where educators meticulously reflect on lesson plans, maintain journals, and draft action plans in isolation. However, this solitary reflection model does not align with the realities of most teachers, as their demanding schedules rarely allow for such introspective, solitary reflection. Hatton and Smith (1995) question whether reflection should be confined to thought processes about action or be more intertwined with the action itself. Unlike solitary reflection, our approach to Applied Theatre provides a dynamic space for action and reflection, guided by participants, solution-oriented, and characterized by dialogic interactions, incorporating multiple voices and perspectives. Participants in our workshops described the highlight of their experience as "reflecting actively and considering connections between my experiences and the group's experiences." This approach was exemplified by one participant's revelation: "I learned that I thrive in courses that emphasize practical and physical movement rather than knowledge-based learning." Another participant shared, "I found myself contemplating my career choices."

Forum Theatre as a Methodology in Teacher Education

In our workshops, we explored the use of Forum Theatre (FT) to raise awareness of and interrogate the challenges faced by English Language Teaching (ELT) teachers, with the aim of seeking solutions. Several key features emerged from the data collected.

Authentic Scenarios in Forum Theatre.

Initially, there was concern about the authenticity of scenarios presented in FT. However, participant feedback contradicted this concern, highlighting the legitimacy of the challenges. Participants appreciated that FT mirrored real situations and presented them visually, enabling them to realize they were not alone in experiencing such problems. This authenticity of scenarios in FT was instrumental in making the challenges relatable and engaging for participants.

Dramatic Distance in Forum Theatre.

Participants noted that dramatizing real situations allowed for reflective distance. They emphasized that drama creates a 'distance' from the problems presented, which facilitates better thinking to find solutions. Engaging in the dramatization of critical incidents placed participants in a liminal space, existing between reality and fiction. This duality induced tension and imaginative possibilities, which are essential for transformative learning. Transformative learning theories suggest that genuine learning occurs when participants confront challenges or disruptions, leading to reflection and critical assessment.

Reflection and Dialogue in Forum Theatre.

Participants highlighted the role of FT in enhancing their confidence, providing a therapeutic outlet, and increasing their awareness of school-related issues. Imagined situations were perceived as less confrontational, making it easier for participants to engage in discussions about their experiences. The participant-led nature of FT allowed content creation to be shifted from facilitators to participants, fostering a collaborative approach. This shift created a zone of proximal development, where participants sought solutions with the support of the audience (spect-actors). Importantly, this approach provided space for creativity and empowerment.

Change and Transformation in Forum Theatre.

The workshops aimed at teacher development, emphasizing the importance of evaluating the extent of change and transformation experienced by participants. Feedback from the final workshop emphasized the role of FT in promoting change. Participants acknowledged the creation of alternative solutions, scenarios, and paths of experience through FT. The relationship between challenge and enjoyment was evident, echoing the perspective that "change is always connected to the willingness to take risks in going beyond what is known and familiar."

Limitations of Forum Theatre in Teacher Education

While drama and Applied Theatre (AT) offer valuable insights into motivation, engagement, and social theory in educational contexts, some participants expressed reservations about institutional interest in professional development through AT. This skepticism was attributed to institutional priorities focused on cost-effective methods. Additionally, the preference for traditional teaching techniques was highlighted. However, one audience member recognized the need for a diverse group of stakeholders, including heads of departments, principals of schools, managers, and teacher trainers, to genuinely address these issues.

In conclusion, Forum Theatre offers teacher educators a powerful tool for reflection. Our methodology emphasized holistic, embodied, spontaneous reflection aimed at transformation and change, which aligns with Schön's view of reflective practice involving a "dialogue of thinking and doing" (Schön, 2017). By combining elements of drama, reflection, and dialogue,

Forum Theatre provides a dynamic approach to teacher development that engages participants in a reflective and transformative process.

Conclusion

Our exploration of Applied Theatre (AT) within the realm of Teacher Education has unearthed three profound dimensions in which AT methods can inform the field:

1. **Facilitation Skills and Personal Development:** These workshops offer teachers a platform to identify and hone crucial facilitation skills. Skills such as building rapport, nurturing trust, fostering collaboration, and cultivating positive group dynamics are instrumental for effective teaching. The drama games and activities not only equip teachers with these facilitation skills but also foster their personal development. Engaging with drama enhances teachers' self-awareness, deepening their comprehension of their roles and laying a solid foundation for professional growth. Teachers discover common ground with their peers, become more comfortable sharing their challenges, and gain an elevated level of articulation and self-confidence.

2. **Reflective Practice and Self-Identity:** AT techniques serve as a distinctive reflective tool for teachers to examine their embodied behavior and professional identities. Through active participation in drama activities, teachers gain valuable insights into their actions, reactions, and communication styles. This heightened self-awareness empowers teachers to adapt and enhance their teaching methods coordinated with their evolving self-concept. Reflective practice in AT underscores the immediacy of experiential learning, fostering continuous self-improvement and personal growth. AT acts as a catalyst for teachers to bridge their teaching approaches with their evolving self-understanding, thus promoting a transformative learning journey.

3. **Forum Theatre for Dialogue and Action:** Forum Theatre acts as a catalyst for discussions and reflections through participant-led dramatizations of educational challenges. By engaging in Forum Theatre, teachers ignite open conversations and shared reflections on the intricacies of teaching. This approach uniquely encourages participants to propose and enact alternative solutions, nurturing innovative thinking and collaborative problem-solving. Differing from traditional research methods, Forum Theatre places action at the forefront from a participant's perspective, prioritizing the educators' firsthand experience and instigating concrete changes and improvements in teaching practices.

Incorporating AT into Teacher Education transcends conventional pedagogy by equipping teachers with the facilitation skills and self-awareness crucial for effective teaching. The emphasis on participant-led discussions and the development of performative skills redefines the teacher's role as one who actively engages with students in the present moment, cultivating self-expression and adaptability.

In summary, our exploration of AT cultivates "meta-performative" skills, offering a distinct form of reflection that goes beyond the analysis of past events to delve deeply into the performative aspects of one's identity. AT enhances the Teacher Education experience by encouraging participants to explore their inner conflicts, preferences, and insights collaboratively, within a solution-oriented framework.

This pilot project underscores the pressing need for an increased emphasis on teacher artistry and performative competencies within education. We advocate for a shift in educational practices, recognizing the potential of the arts to revolutionize teaching and learning. AT

workshops serve as a gateway to a more creative and embodied approach, preparing teachers to tackle the multifaceted challenges of a diverse, multilingual, and multicultural educational landscape, where teaching is an art that engages not just the intellect but also the heart, hands, and feet. Through AT, we invite teachers to embark on a journey of creative, embodied expression, enjoyment, and fulfillment, elevating their professional voyage and contributing to the evolution of Teacher Education.

References

- Bendle, M. (2002). The crisis of identity in high modernity. *The British Journal of Sociology*, 53(1), 1-18. <https://doi.org/10.1080/00071310120109302>
- Boal, A. (2022). *Games for Actors and Non-Actors* (3rd ed.). Routledge.
- Brook, Peter (1968). *The Empty Space: A Book About the Theatre: Deadly, Holy, Rough, Immediate*. ISBN 978-0-684-82957-9
- Even, S. (2020). Presence and Unpredictability in Teacher Education. *Scenario XIV*, 1–10. <https://doi.org/10.33178/scenario.14.1.1>
- Fels, L. (2004). Complexity, Teacher Education, and the Restless Jury: Pedagogical Moments of Performance. *Complicity: An International Journal of Complexity and Education*, 1, 73-98. <https://doi.org/10.29173/cmplct8716>
- Freire (1970). *Pedagogy of the Oppressed*
- Gee, J. (2000). Identity as an analytic lens for research in education. *Review of Research in Education*, 25, 99-125. <https://doi.org/10.2307/1167322>
- Godfrey, J.T. (2023). YouTube: Forum Theatre [Online]. Available at: <https://youtu.be/CJnw0gR5TTk> [Accessed 28 October 2023].
- Godfrey, J.T. (2023). YouTube: TED Theatre Games [Online]. Available at: <https://youtu.be/H8VoyPEilhE> [Accessed 28th October 2023].
- Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching and Teacher Education*, 11, 33-49. [https://doi.org/10.1016/0742-051X\(94\)00012-U](https://doi.org/10.1016/0742-051X(94)00012-U)
- Johnson, L., & O'Neill, C. (1984). *Dorothy Heathcote: Collected Writings on Education and Drama*. Evanston: Northwestern University Press.
- Lutzker, P. (2007). *The Art of Foreign Language Teaching: Improvisation and Drama in Teacher Development and Language Learning*. Francke Verlag.
- Nelson, R. (2013). *Practice as Research in the Arts: Principles, Protocols, Pedagogies, Resistances*. Palgrave Macmillan.
- Piazzoli, E. (2013). *Navigating the Labyrinth: A Study of Engagement and Artistry in Process Drama for Additional Language Teaching and Learning*. Griffith University.
- Price, S. (1999). Critical Discourse Analysis: Discourse Acquisition and Discourse Practices. *TESOL Quarterly*, 33(3), 581-595. <https://doi.org/10.2307/3587683>
- Robinson, K. (2006). YouTube: TED Talks [Online]. Available at: https://www.ted.com/talks/sir_ken_robinson_do_schools_kill_creativity#t-4047. [Accessed 30 December 2021].
- Ruitenbergh, C. (2007). Discourse, Theatrical Performance, Agency: The Analytic Force of "Performativity" in Education.

- Schewe, M. (2013). Taking Stock and Looking Ahead: Drama Pedagogy as a Gateway for Performative. *Scenario: Journal for Performative Teaching, Learning, and Research*, 8, 5-23. <https://doi.org/10.33178/scenario.7.1.2>
- Schon, D.A. (2017). *The Reflective Practitioner* (Revised edition). Routledge. <https://doi.org/10.4324/9781315237473>
- Van Manen, M. (2008). Pedagogic Sensitivity and Teacher's Practical Knowing-in-Action. *Peking University Education Review*, 6, 1-23.
- Van Manen, M. (2016). *Researching Lived Experience: Human Science for an Action-Sensitive Pedagogy*.
- Vygotsky, L. (1986). *Thought and Language*. Cambridge, MA: MIT.
- Wahl, S. (2011). Learning to Teach by Treading the Boards. *Key Concepts in Theatre/Drama Education*, 19-22. https://doi.org/10.1007/978-94-6091-332-7_3

2. IMAGINATION TAKEN SERIOUSLY: IMAGINATIVE EDUCATION FOR TEACHER PROFESSIONAL DEVELOPMENT

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Abstract

Starting with Vygotsky's research and the significant contributions from the subsequent cultural-historical tradition (Smolucha & Smolucha, 1992; Gajdamaschko, 2005), the use of the term "imagination" in educational research has undergone a profound transformation. Previously associated with irrational, egocentric, and unrealistic thinking (Piaget, 1962), the term now signifies a sophisticated form of intelligence that integrates logic, emotions, and cognitive flexibility (Abraham, 2020).

Imaginative Education (IE) is an educational theory that explores the implications of this post-Piagetian perspective on imagination. The theory elucidates why imagination is a vital resource for teaching and learning, providing educators with a set of "cognitive tools crystallized in culture" (Egan, 1997) to enhance the imaginative potential of learners and delve into the thought-provoking and emotionally engaging aspects of curricular subjects.

This article presents the results of an exploratory case study conducted to clarify the content, structures, and educational objectives of in-service teacher training programs based on IE, which have been systematically conducted in universities in British Columbia for over two decades. The findings indicate that this non-instrumental approach to teacher training can make a meaningful contribution to ongoing discussions within the European educational community, with a focus on the integration of educational practice and philosophical awareness, and the holistic development of teachers' professional capacities.

Keywords: *Creativity; Imagination; Imaginative Education; Teacher Education; Teacher Professional Development*

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Introduction

Starting with Vygotsky's research and the decisive contribution of the ensuing cultural-historical tradition (Smolucha & Smolucha, 1992; Gajdamaschko, 2005) the use of the term "imagination" in educational research has changed radically. From an irrational, egocentric, and unrealistic type of thinking (Piaget, 1962), the term has come to denote a sophisticated

form of intelligence in which logic is integrated with emotions and cognitive flexibility (Abraham, 2020).

Research in cognitive science and developmental psychology has provided further empirical confirmation to support this critical rethinking of imagination. Several studies in this field (for a synthesis see: Harris, 2000, 2020) have long since shown that this psychological function is indeed crucial for development and learning at different levels: it supports and enriches personal meaning-making and knowledge construction; it is required for the proper functioning and developing of emotional intelligence, empathy and theory of mind; it enhances metacognition and self-regulation processes and is an essential component of creative idea generation, divergent thinking, and hypothetical and counterfactual reasoning.

A perfect synthesis, both theoretical and historical, of this perspective shift in the field of education is expressed by the theory of Imaginative Education (IE), developed by the educational philosopher Kieran Egan. As much as imagination has been positively reevaluated by other philosophical and pedagogical theories, decidedly more influential on an international level, such as those of Green, Dewey, Steiner, Freire, or Malaguzzi, the case of IE is particularly suitable for working on the definition of the term and its conceptual clarification. In Egan's work, the critical overcoming of Piaget's theories is pursued as an explicit goal (Egan, 2002), and the reasons for rethinking and reevaluating imagination are systematically investigated.

The first reason concerns the relationship between imagination and rational intelligence. Piagetian account of imagination as a form of thinking that is opposed to the rational understanding of reality (Piaget, 1962) gives way in IE to a more complex and profound integration: "Reason and imagination are not mutually exclusive faculties, or even in any way incompatible [...] Imagination must dwell within rationality if rationality is to serve human life and enrich our experience [...] rationality without imagination is blind, rudderless, and as likely to destroy what is of human value [...] conceptions of rationality deficient in imagination are at best arid and at worst damaging" (Egan, 1992, p.25). Even more, in the language of IE, the rigid distinction between imagination and rationality is regarded as more misleading than helpful. Imagination works within the domain of rational intelligence, of which it expresses, if anything, the more sophisticated features, such as cognitive flexibility and the ability to envision alternative possibilities: "Identifying imagination in the capacity to think of something as possibly being so, certainly does not suggest any conflict with rationality. Rather, the ability to hold alternative conceptions in the mind and assess their adequacy or appropriateness would seem a necessary component of any sophisticated rational activity." (Egan, 1992, p.41).

Secondly, Egan explicitly criticizes the Piagetian perspective concerning the connection between imagination and emotion. In IE, imagination is not reduced to a spontaneous and egocentric expression of emotional needs that cannot be satisfied otherwise. It is understood, on the contrary, as the highest form of manifestation of reason, where cognition and emotion are strictly interconnected: "Imagination is reason in its most exalted mood" (Wordsworth, 1967, cited in Egan, 1992). Moreover, this multidimensional character of 'imagination is not

limited to its cognitive complexity nor the link with emotions. It also extends to the practical dimension of personal experience because it is strongly linked to memories, desires, and motivations: «The function of the imagination is such that it never merely copies the world or translates perceptions; it is a constantly active and creative faculty that shapes the world we perceive and that uses our hopes, fears and other emotions in that shaping» (Egan, 1992, p. 24).

Finally, and as a consequence of these assumptions, to be abandoned in IE is the Piagetian account of imagination as an exemplary symptom of early childhood intellectual immaturity which is inadequate to produce any form of meaningful learning and destined to disappear with the rational development of adulthood, except in the remnants of playful diversion or artistic expression. On the contrary, precisely because it is a complex and multidimensional form of thinking, imagination is regarded within IE as the decisive causal factor in cultural and individual development. In learning processes, understood in the most general sense as the individual or joint development of new knowledge, skills, and competencies, imagination is the efficient cause that acts out of psychological dispositions and acquired knowledge. The latter, in contrast, are understood as material causes that provide the imagination with the resources and constraints within which it can express itself (Egan, 2010). Without culture or pre-existing knowledge, established mental habits, value systems, or personal motivations, one could not imagine anything in any possible sense of the term. On the other hand, without a way of thinking that is emotionally rich, connected to personal experience, and open to the possible, there would be no chance of transmitting culture, let alone enriching, transforming, and connecting it with the overall development of individual personality. In more detail, this essential role of imagination in learning is recognized within IE at least at two fundamental levels. First, the focus on imaginative engagement supports a form of intrinsic motivation based on the intellectual and emotional connection with the curricular topics and with their transcendent meaning (Fettes, 2010) Secondly, imaginative thinking supports a sophisticated, flexible, and creative use of intelligence. Without the ability to readjust and remodel the prior system of acquired beliefs and mental models, no form of knowledge acquisition, construction, or co-construction would be possible, nor could new skills or competencies be developed: "Imagination is thus the 'reaching out' feature of students' minds that picks up new ideas, tries them out, weighs their qualities and possibilities, and finds a place for them amidst the things they have already learned" (Tyers, 2006).

Within the theoretical framework of IE, however, these premises regarding the relationship between imagination, learning, and teaching do not confine themselves to theoretical considerations of a general nature. Indeed, the theory provides teachers with a set of “cognitive tools crystallized in culture” (Egan & Judson, 2016) with which to enhance the imaginative potential of teachers and learners and to make curricular topics more emotionally engaging and meaningful. In this regard, Egan advances an original form of recapitulation theory based on the cultural-historical concept of “mediation” (Egan, 1997). From the perspective of Vygotsky, imagination, like all the other higher psychological functions, does not develop through deterministic biological stages; its development, on the contrary, depends upon the gradual internalization of social capacities via the mediation of language interaction. What Egan adds to this general premise, is that he identifies a precise set of cultural artifacts (e.g., stories,

metaphors, riddles, jokes, and humor) that have been historically crucial for cultural development and that can be repurposed on the educational level as teaching strategies to enrich individual imagination and to involve it in teaching and learning.

Research question and research design

IE has been applied for two decades in the field of teacher education and professional development within the Universities of British Columbia (BC). However, so far, research on IE has mainly focused on the evaluation of its educational effects in schools with a limitation, in Europe, to the field of primary science education (Corni & Fuchs, 2020). The studies are specifically devoted to exploring the potentialities of this educational approach to teacher education and teacher professional development have been limited to theoretical works related to pre-service teachers (Fettes, 2005; Chodakowski, 2009) and to empirical studies about training programs for in-service teachers that have not been conducted in the European context (López-Larios et. Al, 2022).

Therefore, the present work is part of a wider research project that aims at the following objectives:

- document and analyze IE teacher training programs that have been developed internationally for more than two decades to clarify the relevance of IE within the contemporary debate on teacher professional development (Sims & Fletcher-Wood, 2021);
- develop an IE course to be implemented in the Italian context;
- conduct an exploratory case study with a group of in-service teachers to analyze the effects of the program on teachers' knowledge, beliefs, and reflexive attitude (Desimone, 2009) and to clarify the potentialities and the critical issues of its implementation in the Italian school system.

The research design consists of three main phases. The first two took place during four months of visiting research in two universities of British Columbia, where IE has been systematically applied in teacher education and professional development for more than two decades. The third will be completed in a primary school in the province of Bolzano that requested training from the University of Bozen/Bolzano on the topic of Imaginative Education.

In the first phase, IE Master Programs (MeD) have been observed and documented. To achieve this, two main sources of documentation were connected: desk research within university archives and databases concerning the history of IE training programs; and field notes (Emerson, Fretz & Shaw, 2011) within participatory observations as a visiting student in current MeDs.

The second phase focused on the elaboration of the course to be implemented in Italy. This phase was not limited to a theoretical investigation of the pedagogical principles of IE but

included collaborative interaction with IE theorists and practitioners. An initial round of narrative interviews (Küsters, 2022) was conducted with 20 participants (5 teacher educators, 12 teachers, and 3 school principals), to delve into the history of IE in British Columbia and to gather different perspectives on the theory and its implementation. Next, the collected material was subjected to a process of bottom-up thematic analysis (Kuckartz & Rädiker, 2023) to highlight recurring themes that were relevant to understanding the effects of MeDs on teachers' professional development and to design a course suitable for the Italian context. The highlighted themes were then used as guidelines to develop a draft course proposal, and focus groups were conducted as “member checks” (Ravitch, 2019) to receive further feedback from participants.

In the third phase, an explorative case study (Yin, 2018) was conducted within the methodological paradigm of Action Research for educational change (Eliot, 1991), and specifically according to its version focused on teacher professional development known in Italy as "Ricerca-Formazione" (Asquini, 2018). The study was conducted with a group of 11 primary school teachers who attended an introductory training course based on IE led by the researcher. In this context, data have been collected through narrative interviews, in-class observations, and focus groups. A top-down thematic analysis, based on the themes that emerged from phase 2, will be conducted to analyze in detail the initial effects of the course on the participants' knowledge, beliefs, and reflection attitudes. Moreover, by the hermeneutic and socio-constructivist principles that inform the epistemology of Imaginative Education (embraced in this sense also as an epistemological horizon for the whole research project), this initial categorization has been grounded on an Interpretative Phenomenological Analysis approach (Larkin et al, 2017). This integration of categorizing and contextualizing strategies within qualitative research (Maxwell & Miller, 2008), aimed to ground the general categories on experiential themes that illuminate each participant's perspective regarding their educational journey.

One unexpected result can be reported that affected the overall design of the research: the participants expressed an interest in continuing with a further training phase to apply IE in their classrooms during the school year 2023-2024. The reasons given by the participants for this proposal concern both the need for more time to explore IE in practice and the possibility of using this theory to focus on cooperative and interdisciplinary educational planning.

Therefore, a new phase, which emerged from the dialogue between the participants and the researcher, will be carried out to deepen the case study and collect further data on the effects of the course on the participants' knowledge, beliefs, and collaborative and reflective attitudes. It will be organized as follows:

- Singular teachers or sub-groups of teachers will design Learning Units based on IE principles and tools
- The Learning Units will be implemented by the teachers at different times

-During this process, there will be individual meetings between teachers and the researcher, as well as group meetings to further explore the themes of IE and to discuss the progress of the teaching experiences in the classroom.

Methodologically, the same data triangulation of phase 3 will be maintained, involving classroom observations, individual interviews, and focus groups recorded during collective meetings. The process of thematic analysis will be based on the application of the indicators that emerged in the previous research phases, as well as on the definition of new themes related to the practical experimentation of the theory and to the moments of reflection and collective discussion that will accompany it.

Results and discussion

At the current stage of the project, only the first and second phases of the research have concluded. Findings concern the structure and content of MEds, on the one hand, and their educational aims for teachers' professional development, on the other.

According to the epistemological premises of our research, results will be presented with an integration of our conceptual analysis and participants' voices, reported through direct examples extracted from observations and interviews.

Structure and content

The structure of the three-year master's programs of Canadian universities does not find a counterpart in the training programs offered within the Italian school system. Among the main theoretical cores of the masters on IE (hermeneutics and dialogic pedagogy, socio-cultural psychology, action research in the classroom, lesson planning), the aspects of the practical implementation of theory for curriculum design emerged as the most relevant for a basic introduction of theory in the available time and in a context in which it is unknown.

Regarding the didactic design of courses, the main themes that emerged are: "reflection in and on practice" and "community of knowledge" which find theoretical counterparts in the European context respectively in the notion of "reflective practitioner" (Schön, 1987) and "communities of practice" (Wenger, 2009) whose application in educational research is also widely documented in Italy.

Moreover, a recursive analysis of the data has brought to light other themes, closer to the peculiar perspective of Imaginative Education about the teachers' reflective engagement. In general, these themes show that an IE approach to teacher professional development aligns with those European philosophical and pedagogical traditions that emphasize the ethical and aesthetical dimensions of teaching (Biesta, 2023).

1) "The point is not only to have a rich and detailed, or perhaps even critical and original understanding of what exists or has happened. It is also about... how shall we say... an

imaginative sense... of what has not been but could have been, or of what could be radically different, perhaps even better.”

The theme of "imaginative reflection" is a fundamental concept that underscores the substantial significance placed by participants within a given context on the exploration of "What if" questions. These questions are not mere intellectual exercises but rather serve as powerful guiding principles. In essence, they function as moral compasses, offering a sense of direction and purpose, particularly in the context of leadership and agency.

"What if" questions are a form of inquiry that delves into hypothetical scenarios and possibilities. Participants in this context exhibit a remarkable commitment to exploring these questions. This exploration is not merely an intellectual exercise but rather a deep and imaginative examination of potential scenarios and their implications. These "What if" questions are not treated as casual or trivial musings. Instead, they take on the role of guiding principles. Much like a compass that helps travelers navigate unfamiliar territory, these questions offer direction and guidance. They serve as moral compasses that help individuals align their actions and decisions with a shared vision or set of values (Chodakowski, 2009). Leadership is often characterized by the ability to envision new possibilities and inspire others to follow a particular course of action. In the context of "imaginative reflection," the emphasis on "What if" questions bolsters leadership. It empowers teachers to harness the collective imaginative thinking of the group, which can lead to innovative solutions, dynamic strategies, and a forward-thinking approach (Judson 2020). Moreover the use of "What if" questions within this theme is not an isolated endeavor; it is a collective one. Participants engage in imaginative thinking as a group, harnessing the synergy of multiple perspectives and creative insights. This collective approach not only enriches the quality of ideas but also fosters a sense of shared responsibility and collaboration.

In summary, the theme of "imaginative reflection" represents a profound dimension of human interaction and decision-making. It underscores the role of imaginative thinking and "What if" questions as essential tools in guiding individuals, enhancing their leadership capabilities, promoting agency, and fostering a sense of collective purpose.

2) «In short...with teachers for me, the point is never to provide the definitive answer on IE orthodoxy, nor to prove who knows what strength of theory...rather I would like us to open up questions, to explore contradictions and limitations about what we take for granted in education»

The theme of "ironic stance" serves as a pivotal element in the landscape of IE-based (Imaginative Education) training, shedding light on the nature of collective discussions that take place within this framework. In contrast to a quest for definitive answers or straightforward solutions, this theme champions a more nuanced and sophisticated approach. "Ironic stance" is characterized by an intentional engagement with open contradictions, as well as a deliberate exploration of the limitations and ambiguities inherent in the educational beliefs held by teachers and instructors (Egan, 1978) In contrast to a conventional and prescriptive

approach to education, the "ironic stance" encourages a departure from seeking definitive and one-size-fits-all solutions. It recognizes that the educational landscape is replete with nuances and intricacies that cannot be distilled into simple, universal answers. Within this theme, open acknowledgment and deliberate engagement with contradictions are key. Instead of perceiving contradictions as hindrances or obstacles, they are seen as valuable opportunities for learning and growth. Contradictions often reveal the complexity of educational concepts and the diversity of perspectives within the teaching community. Through this approach, participants in IE-based training engage in a critical and reflective examination of their educational beliefs. They scrutinize their assumptions, question their preconceptions, and are open to reevaluating their positions.

3) “At times looking at me from the outside I would never have guessed I was attending a course. It was more of an intimate space...to share, to take risks...where we reflected on each other’s stories and values...and what we could improve in our craft, in our way of using a general set of strategies. Even when we were talking about Egan, about philosophy...it was always us being us”

"Personal sense-making" places significant importance on two key aspects: the emotional and narrative engagement of teachers, often referred to as narrative reflection, (Jay & Johnson, 2002). and the establishment of a secure and inclusive space fostering a sense of belonging (Gravett & Ajjawi, 2022)

Narrative reflection underscores the value attributed to the emotional and narrative dimensions of teachers' experiences and understanding. It involves encouraging educators to engage with their own stories, experiences, and emotions, recognizing that these elements play a vital role in shaping their teaching practices. By embracing narrative reflection, teachers are prompted to explore their narratives and delve into the emotional aspects of their teaching journey, which, in turn, enriches their personal sense-making and professional growth.

Belonging pertains to the creation of a safe and supportive environment within the educational context. It is characterized by a sense of community and mutual respect, where teachers feel a deep connection and a shared sense of purpose. Establishing a space of belonging is crucial for nurturing trust, collaboration, and open dialogue among teachers. It enables them to explore their sense-making within an environment that values their unique perspectives and experiences, ultimately contributing to their professional development and well-being.

In essence, "personal sense-making" acknowledges the importance of teachers' emotional engagement and their narratives while simultaneously emphasizing the need for a supportive and inclusive space that promotes a sense of belonging, all of which are integral to effective teaching and personal growth within the educational realm.

Educational aims

The results of the analysis of interviews and participatory observations show various reasons for the originality and relevance of MeDs in terms of teacher professional development:

1) “I was not scared...not disappointed by History any longer. I knew I could always find something human...some dramatic tension or some enlightening metaphor...hidden there, even behind the “Who-knows-what War”...exactly like when I can teach music, my real passion. (...) What’s funny is that I slowly found myself reading more and more history books in bed at night and thinking “yeah this is cool, kids will love it!”

The presence of themes like "Philosophical understanding of the content," "personal connection to the topic," and "Cognitive tools for interdisciplinarity" underscores the overarching goal of Imaginative Education (IE) programs. These themes collectively reflect an educational approach designed to kindle teachers' innate curiosity, ignite their enthusiasm for cultural enrichment, and spark their passion for research. In doing so, IE programs seek to foster the development of Content Knowledge and Content Pedagogical Knowledge (Gudmundsdottir & Shulman, 1987). Within the context of IE programs, the cultivation of a philosophical understanding of the content is a fundamental aspect. This goes beyond rote memorization and superficial comprehension. It encourages educators to delve deeply into the core principles and underlying philosophies that shape the subject matter. This deep dive into the "why" and "how" of the content instills a sense of intellectual curiosity and encourages teachers to explore the subject from different angles and perspectives. Moreover, IE programs emphasize the importance of establishing a personal connection to the subject matter. When teachers can relate to the content on a personal level, it not only makes learning more engaging but also allows them to bring their own experiences and insights into their teaching. This personal connection nurtures a genuine passion for the topic and fuels the desire to continuously explore and enrich their understanding. Therefore, One of the key objectives of IE programs is to stimulate a spontaneous and intrinsic desire for cultural enrichment and research among teachers. Rather than treating learning as a chore, this approach encourages educators to seek out new knowledge, explore related areas of interest, and engage in continuous learning. It fosters a culture of ongoing personal and professional development.

2) “The so-called “content” should be not something arbitrary, scholastic, and cold. Even remotely, it speaks to you, to each kid, to the group. And maybe you speak back, like in a conversation...and the topic enriches your personal life, your connection with the social and natural world...At least this is what I aim to do as an IE educator!”

The training described here is characterized by its practice-oriented nature, where educators engage in on hands-on, real-world teaching experiences. However, what sets this training apart is that it takes place within the framework of an overarching philosophical theory of education. This philosophy compels teachers to link their reflections on classroom practice with a more profound inquiry into the non-instrumental aspects of their profession and the significance of their critical judgment regarding the fundamental objectives of education. This approach brings together practical and philosophical dimensions in a way that enriches and deepens the teaching profession (Biesta, 2017). The presence of an overarching philosophical theory of education

provides a conceptual framework within which teaching and learning are understood. In this sense, IE is not just a set of abstract principles but a guiding philosophy that informs the practice of education which involves questions about the nature and purpose of education, the role of teachers, and the desired outcomes of the educational process. In this educational approach, reflection is not merely a superficial consideration of teaching practices. It is intrinsically connected to a deeper inquiry into the non-instrumental aspects of education. This means teachers are encouraged to explore the meaning and value of their work beyond the immediate, pragmatic aspects. They delve into questions of purpose, ethics, and the broader societal impact of education. Teachers are called upon to exercise their critical thinking skills in evaluating and reevaluating the fundamental aims of education. This empowers them to make informed decisions and adapt their practices in light of their evolving understanding of the educational process. In essence, IE emerged as a holistic and reflective approach to teacher education. It encourages educators to integrate their practical experiences with a profound philosophical understanding of the teaching profession.

3) “It’s not that IE is pro-hands-on activities and anti-frontal lessons or things like that. I think of IE more in terms of context-sensitivity...you need to understand which of these perspectives is better and when... to enhance your students’ imagination and involve it in a deep and meaningful understanding of the topic”.

The emergence of themes related to teaching styles promoted by IE (Imaginative Education) training underscores the program's commitment to fostering a flexible perspective with a strong emphasis on context sensitivity. This approach challenges and goes beyond entrenched educational dichotomies. One of the most prominent of these dichotomies is the division between immediate experiential learning and abstract, theoretical understanding. Rather than viewing these as mutually exclusive, IE encourages educators to bridge the gap between experiential and abstract learning. It recognizes that both are valuable and that effective education often involves a dynamic interplay between them (Fettes, 2011). Moreover, IE aims to overcome the dichotomy between teacher-centered and student-centered approaches. Rather than taking a one-sided approach, IE recognizes that both the teacher's expertise and the student's active engagement are critical for effective learning. This balanced perspective encourages a more harmonious and dynamic classroom environment, sensible to the unique backgrounds, abilities, and learning styles of students, the complexity of the classroom, and the epistemological features of the curricular topic (Jagla, 1984).

Conclusion

The results obtained thus far do not provide significant evidence to formulate conclusions about the effectiveness or impact of IE-based training courses on in-service teachers. To reach a point where we can draw meaningful inferences, it is imperative to proceed with the subsequent phases of the planned research design. Even in those subsequent phases, however, the data we will gather will remain qualitative and will be confined to an initial exploratory case study. This study serves a specific purpose: it is instrumental in assessing the feasibility of integrating

an IE-based course into the Italian teacher training system and in collecting preliminary results that are idiosyncratic to the unique context in which the study is conducted.

Conforming to established research protocols within the domain of teacher professional development (as I previously cited), the next step will be to regard these data as guiding elements for embarking on more expansive and diverse research endeavors. Such endeavors should be undertaken by different research groups operating in a range of educational contexts.

Nonetheless, the description of the educational goals and the structure of IE-based courses that emerged from the initial exploratory case study conducted in British Columbia is far from inconsequential. It holds relevance because it outlines an approach to in-service teacher training that can provide an innovative contribution to the ongoing discourse led by the academic and scientific community in Europe.

In particular, certain aspects of this approach are noteworthy. First and foremost, it emphasizes a non-reductionist interpretation of reflective thinking, which aims to nurture and promote this form of thinking among teachers. This approach recognizes that reflection is a multifaceted process that goes beyond simple problem-solving, encompassing deeper philosophical and critical dimensions.

Additionally, this approach underscores the significance of fostering a synergistic and functional relationship between educational and didactic practices within the classroom context. It acknowledges that effective teaching and learning require a harmonious connection between theory and practice, with theory being embedded in meaningful and engaging classroom activities.

Furthermore, it advocates for the development of a philosophical judgment concerning the aims and goals of education. This philosophical perspective encourages educators to contemplate the deeper purpose and moral dimensions of their profession, encouraging them to make informed and ethically sound decisions in their teaching practice.

Lastly, the approach highlights the importance of recognizing and nurturing the creative, emotional, and value-related aspects that underpin the teaching profession. It acknowledges that teaching is not solely a mechanical transmission of information but a deeply human and multifaceted endeavor that involves inspiring and guiding learners, and it places due emphasis on the emotional and creative aspects of teaching.

In summary, while the current results may not be definitive, the conceptual framework emerging from the initial case study in British Columbia presents a promising path for in-service teacher training. It reflects a holistic and forward-thinking approach that can contribute meaningfully to the ongoing discussions in the European educational community, focusing on reflective thinking, the integration of theory and practice, philosophical reflection, and the holistic development of teachers' professional capacities.

References

- Abraham, A. (2020). Surveying the imagination landscape. *The Cambridge Handbook of the Imagination*, 1- 10.
- Asquini, G. (2018). La ricerca-formazione: temi, esperienze, prospettive. *La ricerca-formazione*, 1-229.
- Biesta, G. (2017). The future of teacher education: Evidence, competence or wisdom? A companion to research in teacher education, 435-453.
- Biesta, G. (2023). Reclaiming the artistry of teaching.
- Chodakowski, A. (2009). Teaching made wonderful: Redesigning teacher education with imagination in mind.
- Corni, F., & Fuchs, H. U. (2020). Primary physical science for student teachers at kindergarten and primary school levels: Part I—foundations of an imaginative approach to physical science. *Interchange*, 51(3), 315- 343.
- Desimone, L. M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational researcher*, 38(3), 181-199.
- Egan, K. (1992). *Imagination in teaching and learning*. Chicago: University of Chicago Press.
- Egan, K. (1997). *The Educated Mind: How Cognitive Tools Shape Our Understanding*. Chicago: The University of Chicago Press.
- Egan, K. (2002). *Getting it Wrong from the beginning*. London: Yale University Press.
- Egan, K., & Judson (2016). *Imagination and the engaged learner: Cognitive tools for the classroom*. Teachers College Press.
- Elliott, J. (1991). *Action research for education*. Open University Press.
- Emerson, R. M., Fretz, R. I., & Shaw, L. L. (2011). *Writing ethnographic fieldnotes*. University of Chicago Press.
- Fettes, M. (2005). Imaginative transformation in teacher education. *Teaching Education*, 16(1), 3-11.
- Fettes, M. (2010). The TIEs that bind: How imagination grasps the world. *Engaging imagination and developing creativity in education*, 2-16.
- Fettes, M. (2011). Sense and Sensibility: Educating the Somatic Imagination. *Journal of Curriculum Theorizing*, 27(2).

Gajdamaschko, N. (2005). Vygotsky on imagination: Why an understanding of the imagination is an important issue for schoolteachers. *Teaching Education*, 16(1), 13-22.

Gravett, K., & Ajjawi, R. (2022). Belonging as situated practice. *Studies in Higher Education*, 47(7), 1386-1396.

Gudmundsdottir, S., & Shulman, L. (1987). Pedagogical content knowledge in social studies. *Scandinavian Journal of Educational Research*, 31(2), 59-70.

Handbook of Emergent Methods.

Harris, P. L. (2021). Early Constraints on the Imagination: The Realism of Young Children. *Child Development*, 92(2), 466-483. <https://doi.org/10.1111/cdev.13487>

Harris, P.L. (2000). *The Work of the Imagination*. Blackwell Publishing.

Harvard University Press, 1978. (M. Cole, et. al)

Jagla, V. M. (1994). *Teachers' Everyday Use of Imagination and Intuition: In Pursuit of the Elusive Image*. State University of New York Press.

Jay, J. K., & Johnson, K. L. (2002). Capturing Complexity: A Typology of Reflective Practice for Teacher Education. *Teaching and Teacher Education*, 18(1), 73-85.

Judson, G. (2020). Conceptualizing Imagination in the Context of School Leadership. *International Journal of Leadership in Education*, 1-13.

Kuckartz, U., & Rädiker, S. (2023). *Qualitative Content Analysis: Methods, Practice, and Software*. SAGE.

Küsters, I. (2022). Narratives Interview. In *Handbuch Methoden der empirischen Sozialforschung* (pp. 893- 900). Wiesbaden: Springer Fachmedien Wiesbaden.

Larkin, M., Flowers, P., & Smith, J. A. (2021). Interpretative Phenomenological Analysis: Theory, Method, and Research. *Interpretative Phenomenological Analysis*, 1-100.

López-Larios, C., Estévez-Nénninger, E. H., & González-Bello, E. O. (2022). Educational Change and Innovation in the Theory and Practice of Initial Teacher Training. *Revista iberoamericana de educación superior*, 13(37), 155-174.

Maxwell, J. A., & Miller, B. A. (2008). *Categorizing and Connecting Strategies in Qualitative Data Analysis*.

Piaget, J. (1962). *Play Dreams and Imitation in Childhood*. New York: W.W. Norton.

Ravitch, S. M., & Carl, N. M. (2019). *Qualitative Research: Bridging the Conceptual, Theoretical, and Methodological*. Sage Publications.

Schön, D. A. (1987). *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass.

Sims, S., & Fletcher-Wood, H. (2021). Identifying the Characteristics of Effective Teacher Professional Development: A Critical Review. *School Effectiveness and School Improvement*, 32(1), 47-63.

Smolucha, L., & Smolucha, F. C. (1986). *L.S. Vygotsky's Theory of Creative Imagination*.

Tyers, O. (2006). *A Brief Guide to Imaginative Education*. Simon Fraser University, The Imaginative Education Research Group.

Van Leeuwen, D.S. Neil (2014). The Meaning of 'Imagine' Part II: Attitude and Action. *Philosophy Compass*, 9(11), 791-802. doi:10.1111/phc3.12141

Vygotsky, L.S. (1930). *Imagination and Creativity in Childhood* (2nd publication in 1967). Moscow: Prosvescheniye. Trans. F. Smolucha (in Progress).

Vygotsky, L.S. (1931). *Imagination and Creativity in the Adolescent* (Chapter 12 in *The Pedology of the Adolescent* from Volume 4 of the *Collected Works of L.S. Vygotsky*). Moscow: Pedagogika, 1984. (F. Smolucha, Trans.).

Vygotsky, L.S. (1932). *Imagination and Its Development in Childhood* (Lecture 5 in Part 2 of the *Development of Higher Psychological Functions*). Moscow: Academy of Pedagogical Sciences, 1960. (F. Smolucha, Trans.).

Vygotsky, L.S. (1933). *Play and its Role in the Psychological Development of the Child* (in *Mind in Society*).

Vygotsky, L.S. (1934a). *Thought and Language* (Cambridge: Massachusetts Institute of Technology, 1962). (E. Hanfmann and G. Vakar, Trans.).

Vygotsky, L.S. (1934b). *Thinking and Speech: Chapter 2, The Problem of Speech and Thinking in Piaget's theory* (from Volume 2 of the *Collected Works of L.S. Vygotsky*). Moscow: Pedagogika, 1982. (N. Minnick, Trans.).

Wenger, E. (2009). *Communities of Practice: The Key to Knowledge Strategy*. In *Knowledge and Communities* (pp. 3-20). Routledge.

Wordsworth, William. "The Prelude" *English Romantic Writers*. Ed. David Perkins. Harcourt Brace Jovanovich Publishers, 1967. Print.

Yin, R. K. (2018). Designing Case Studies. *Qualitative Research Methods*, 5(14), 359-386.

3. MENTORING RELATIONSHIP IN PRE-SERVICE TEACHER EDUCATION: SOCIAL REPRESENTATIONS CONSTRUCTED BY STUDENT TEACHERS

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Abstract

The social representations of the mentoring relationship that student teachers construct during practicum reveal significant aspects of mentoring facilitating or inhibiting their professional growth. The present study aims to identify the content, structure, and dynamics of social representations of mentoring relationships. The participants of the study were student teachers in preschool and primary pedagogy study programs in Klaipėda, Lithuania. The research methods included the free associations method with the control group (n=20), and a structured interview, and an experiment with the experimental group (n=48). The findings of the research allowed identification and verification of the contents and structure of mentoring relationship representations – the central core and peripheral elements. The social representations of the mentoring relationship in pre-service teacher practicum included respect, support, cooperation, student's personal development, empathy, mentor's time devoted to the student, politeness, dealing with stress, student's lack of confidence, mentor's high expectations, differences of opinion and dealing with the feeling of burden. Respect and support were identified as central elements of social representation, while cooperation and student's personal development were identified as peripheral elements. The experiment shows that the new information reinforced by the paradigm of persuasion may change the meaning of the element and further lead to the change in the student teachers' representation of the mentoring relationship. This study may provide some useful insight into the design of a more relevant preservice teacher practicum, and mentor professional development taking into consideration the perspective of mentoring relationship.

Keywords: *social representations, mentoring relationship, preservice teacher education*

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Introduction

The potential of analysis of social representations is becoming of increasing interest among representatives of various fields of science. This is because social representations make it possible to evaluate and compare different individuals' perceptions of various objects in

everyday life. The analysis of social representations also emphasizes a common vision of a certain social group and existing intergroup differences in the perception of reality, subject to professional occupation, social interaction, or personal identity.

The scope of discourse was greatly enlarged by the revived idea of the interpretation of a collective phenomenon, or, in other words, the “resurrection” of Durkheim’s (1898) legacy, as well as by Moscovici’s (1961) contribution to the theoretical fundamentals of social representations. According to Moscovici (2008), social representations both allow individuals to take a desired social position about a particular object and provide members of a social group with a common concept of attitudes, values and beliefs. The latter, in turn, produces positive interpersonal communication and, thus, social interaction. However, it should be noted that in databases, there prevails scientific literature on the conceptualization of social representations, and analysis of a content, structure, and methods thereof (Abric, 2003; 2005; Duveen, 2001; Flament, 2001; Lo Monaco, Piermatteo, Rateau & Tavani, 2017; Losada, 2014; Moliner, 2015; Tafani & Bellon, 2001; Tafani & Souchet, 2001) rather than on the application of the analysis in various walks of life of public figures.

In the field of education, there are a variety of aspects of social representations and contexts thereof analyzed from the teacher's perspective including teachers’ representations of competency development (Almeida et al., 2019; Mazilescu et al., 2010), and formation (Gonzalez, 2020), teachers’ professionalism (Silva et al., 2014), professional identity and activity (Gebran & Trevizan 2018), inclusion of children with special needs (Linton et al., 2015). However, not much of the published research are looking into the student’s perspective of learning and teaching (Cadavid-Munera, 2022; Costa & Cotta, 2014; Martikainen, 2019). There are some studies of social representations of teacher education issues, including the construction of student teachers’ professional identities (Pelini, 2011), teachers’ representations of affectivity, and teacher training (Camargo, 2017). However, the review of educational research literature shows a lack of studies on social representations constructed by student teachers in general, and on the issues of mentoring in particular. The relevance of this approach may be established through exploring how student teachers construct their social representations of mentoring which both affect and are affected by mentoring interactions. Mentoring as an essential attribute of practicum in preservice teacher education is associated with cultivating a relationship between two teachers, in which a more experienced teacher (mentor) communicates their expertise to a less experienced student teacher (mentee) to assist their professional and personal growth (Hudson, 2016) by providing guidance and support (Clifford, 1999), by being collaborative and coaching partners (Badia & Clarke, 2022; Dani, et al., 2021) or performing as reflective models (Sandvik et al., 2019). The analysis of social representations may increase understanding of different aspects of teacher education and help improve teacher education practice. However, it should be borne in mind that knowledge of social psychology or education alone is not sufficient for the analysis of social representations. Only a multidisciplinary, multi-methodological approach to the objects of analysis of social representations will allow a better understanding of the factors that determine the social interaction of actors and participants in the field of teacher education, their behaviors, practicum, institutional policies, professionalization opportunities, and sustainability. However, the literature review shows that there are no studies on the analysis of social representations of mentoring relationships in pre-service teacher education in Lithuania. This has presumed the scientific problem of this study: what is the content, structure, and dynamics

of social representations of mentoring relationships constructed by student teachers? The present study aims to answer the following **research questions**: What are the social representations of the mentoring relationship of student teachers in pre-service teacher education? What makes central and peripheral elements of representations of the mentoring relationship constructed by the study participants – pre-service student teachers? What are the dynamics of the social representations under the influence of the source of information?

The analysis of the social representations that student teachers construct may aid in understanding of the significance student teachers attribute to relational aspects of mentoring as conditions facilitating or inhibiting their pursuit of professionalism. From the social representation theory point of view, this study aims to explore students' understanding of mentoring through their associations and trace the core notions influencing their conceptions of mentoring.

The study is based on the following methodological approaches, which serve as theoretical background:

- *the socio-constructivist approach* maintains that there is no objective reality that exists independently of individual knowledge (Raskin, 2002). Learning occurs when the learners actively construct their understanding through interaction, as individuals do not discover reality but create it. Reality is interactive, and there is a reciprocity and structural relationship between the observer and the object;
- *Theory of Social Representations* (Moscovici, 1969, 2008) and *psychosocial approach* to social representations, as they are a system of knowledge, values, concepts and practices with a dual purpose: first, to introduce procedures that allow individuals to orientate and dominate in the social, material environment, secondly, to ensure the communication of community members by providing them with a unified code for naming and classification of the surrounding reality, and the personal or collective history (Moscovici, 2008);
- *The Central Core Theory* (Abric, 1993, 1996) of social representation with the structural approach to analysis. Jean-Claude Abric describes the concept of social representation as a product and process of mental activity in which an individual or a group recreates a meaningful, obvious reality for them. Thus, social representations are an organized set of opinions, attitudes, beliefs information about an object or situation. Abric (1993, 1996) argues that social representation is formed of central elements associated with a “notional framework” (Moliner & Martos, 2005) and peripheral elements allowing adaptation to context change.

The theoretical novelty and practical significance of this research is that the analysis of social representations helps to understand and evaluate the impact of the latter on communication, becoming a professional, integrating into the world of work, field, team, constructing professional identity, improving institutions, actors, studies, and expanding knowledge. The analysis of social representations in research ensures the links between ideas and facts, intentions and practical activities, and opens opportunities to study the dimensions of a low-profile, analyzed phenomenon with the psychological, and social conditions that formed the object or phenomenon. One of the main reasons for the relevance and practical benefits of the analysis of social representations is that it is significant for all of us to know what we rely on in our relationships with the environment, the world, and other people, what we base our

professional behavior, relationships or professional identity on. In this way, representations acquire an explanatory value of empirically observable facts or statistics, which can be practically applied to the analysis and improvement of social interaction, communication, interpersonal relationships, social behavior, social sustainability, and other phenomena of actors.

Methods

The following methods have been applied in the study: the *free associations test and hierarchical sorting technique* with the control group for collecting data necessary to identify the content of social representations and a *questionnaire* for identifying the central core and peripheral elements of representations; an *interview* with the experimental group for verification of the selected elements of social representations; and an *experiment* in creating different interview conditions with a dependent variable and an independent source credibility variable aiming to show the dynamics of social representations based on the *Elaboration Likelihood Model (ELM)* (Petty & Cacioppo, 1998).

Research assumptions. During the research, the *independent research variable* - high/low credibility of the information source - was outlined. It is a classical variable of research based on a persuasive paradigm (Rouquette & Rateau, 2009). The main elements of the central core and peripheral system - in this study, in the case of analysis of the structure of representations of mentoring relationships constructed by student teachers, the 1st to 4th semantic units (associations) become the *second independent research variable*. The *dependent variables* of the study were the answers of control group participants to the question: *What does the relationship with the mentor during the practicum mean to you?* aiming to identify the content of mentoring relationship representations by student teachers. It was assumed that in repeated measures research with experimental groups, changes in social representation (dynamics) are possible after the participants of the research were provided with some information from credible sources after the semantic units (associations) had been formulated in a negative form (using inversion). In addition, the survey was based on the assumption that any social representations can be recognized by individuals in a specific situation. If no other information refutes the initial situation hypothesis, it is likely that the individual will recognize the object of representation, and will be able to analyze it, interact, and communicate. On the other hand, if the new information contradicts the initial hypothesis or raises some doubts, the individual's perception of the object of social representation will change, as they will choose the most suitable option based on the new information.

Research instrument. The compilation of the semantic units ($n = 12$) presented in the research instrument for the control group is based on the information collected by the free association method and is based on the credibility of the source. The grounding of semantic units during the experiment is based on official documents or a credible study, a scientific source, and not just the opinion of any small group. The research instrument for experimental groups is constructed based on double negation (whose expression $\neg\neg p \leftrightarrow p$ is correct in all cases). The semantic units for the experimental groups were formulated using inversion (negative form, first denial) and presented to the participants, who were asked to mark the most appropriate answer on a six-point scale (where 6 = "completely agree"; 5 = "agree"; 4 = "rather agree"; 3

= “rather disagree”, 2 = “disagree”, 1 = “completely disagree”). Later, in the case of repeated measures research after two months, aiming to evaluate the dynamics of social representations, a research instrument is presented, where the semantic units - central and peripheral elements of social representations are formulated in a positive form (without inversion).

When analyzing the research results obtained by applying the research instrument and collecting data and considering the answers of the research participants, a double denial of the semantic unit – the created association may / may not occur if inversion has been applied. After receiving the most negative answers to the given negative semantic unit, it can be stated that this element of social representation is the main one for the study participants because the principle of double denial has been confirmed. Such a semantic unit (association) then becomes an element of the central core of representation. Significantly, most participants of the experimental groups ($\geq 75\%$) do not agree with the negative semantic unit or agree with the positive semantic unit (the control group and the repeated measures research group). Only then the semantic unit become the main element of the central core of social representation (Moliner, Rateau & Cohen-Scali, 2002). If a negative semantic unit is not accepted or a positive semantic unit is accepted by less than 75%, the latter becomes a peripheral element of representation. The 75 percent majority has been chosen to secure the decision threshold (Lo Monaco et al., 2017, p.319). Such research tools for determining the central core and peripheral elements of the object of social representation were approved and verified by other studies conducted at Klaipėda University (Jatkauskienė, Norkienė, Nugaras, & Norkutė-Macijauskė, 2019). The research was carried out in stages (see Fig.1).

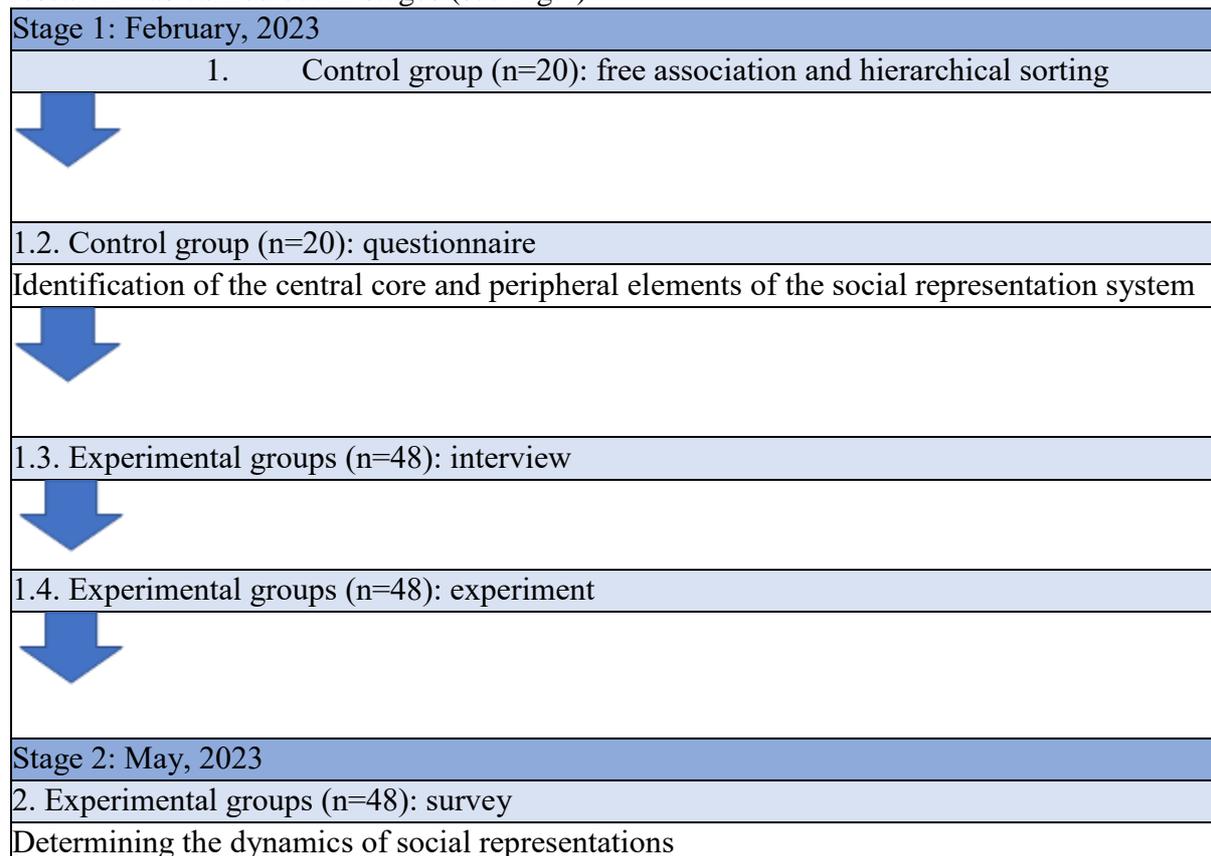


Figure 1. Research process and stages

The research started with the 1st stage in February 2023: 1.1. In the control group ($n = 20$), the free association and hierarchical sorting technique was applied to collect the data needed to determine the content of the social representation of the object of *mentoring relationship in pre-service teacher practicum*. The question for research participants: *What does the relationship with the mentor during the practicum mean to you?* 1.2. After determining the content of the object of social representation, the control group was given a questionnaire ($n = 20$), in which the semantic units were formulated in a positive form (without inversion), asking to evaluate each presented semantic unit (association) on a six-point scale from “absolutely important” to “absolutely unimportant”; The questionnaire survey data were analyzed, and the central and peripheral elements were identified; 1.3. Interviews with the participants of the experimental groups were based on the results of the survey (i.e., the identified key elements of the central and peripheral structure of representations). The aim of the interviews, which were conducted with each group separately, was to verify the data obtained during the control group survey by presenting the experiment group participants with the main elements of central and peripheral systems identified by the control group. Four experimental groups consisting of 12 participants each ($n = 48$) were presented 4 semantic units (with inversion) orally, based on the 4 main elements of social representations including 2 central core and 2 peripheral elements identified during the control group survey. During the interviews, the participants were asked to evaluate the presented semantic units (associations), and the results of the interviews were summarized. 1.4. The experiment. Having summarized the results, the persuasion stage begins immediately. However, the participants are not informed that an experiment is taking place. Different interview conditions are used with the 4 experimental groups, i.e., different representation elements (dependent variable and independent variable of information source credibility): 1. Group (a) ($n = 12$) - high credibility of the information source of the central element of the representation; 2. Group (b) ($n = 12$) - low credibility of the information source of the central element of representation 3. Group (c) ($n = 12$) - high credibility of the information source of the peripheral element of representation 4. Group (d) ($n = 12$) - low credibility of the information source of the peripheral element of representation. The participants were told that the researchers wanted to share some available information on mentoring relationships in pre-service teacher practicum. Thus groups (a) and (c) were given quotes and excerpts taken from official documents or other credible sources of information on the subject of one or another semantic unit, and groups (b) and (d) were provided with citations and excerpts from low credibility sources of information, which were even contradicting to the semantic unit. The participants were able to discuss the information with other members of the group. At this point, the experiment was concluded.

Stage 2 began in May 2023. The repeated measures research was carried out with experimental groups ($n = 48$) using a survey according to the same semantic units including two central core and two peripheral elements. This time the statement for evaluation was formulated without inversion. The results obtained from the experimental groups at the 1st and the 2nd stages were compared and analyzed to determine the dynamics of social representations. The conclusions of the research were formulated of based on the research findings.

The study participants were selected based on criterion-based selection: student teachers who have had some experience with mentoring during practicum in pre-service teacher education. In the present study, the participants were student teachers in preschool and primary pedagogy study programs in Klaipėda, Lithuania.

The study participants were divided into 5 groups: 1 control group (n = 20) and 4 experimental groups of 12 study participants (n = 48). The control group was formed to determine the content of the object of representation and to identify the structure of the representation – the elements of central core and peripheral systems. The fact that a group of participants with the same status and identity as pre-service student teachers participated in the study is considered to be an advantage of this study. One of the advantages of research is the application of the free association technique, which allows the emergence of hidden, latent elements that can be camouflaged during the conversation, facilitates the interpretation of terms by each participant according to the nature of their thinking, allows access to the image of the representation core, and reduces some of the disadvantages of conversation. According to Flament et al. (2003, p. 58), it can be argued that the principle of all associative methods and procedures is intended to establish the relationship between the basic semantic unit and association. Generally, the basic semantic unit takes the form of a word, short phrase, or expression. However, the application of the free association technique also has certain drawbacks, namely it is quite difficult to choose the keyword for the association, as this selection determines the quality of data. It is not possible to find out the nature of the relations between the associations chosen by the participant, and it is difficult to interpret the selected associations due to the absence of semantic context.

Research ethics. Written consent of all participants to participate in the study was obtained. The study adopted the following ethical principles:

- the principle of voluntariness. All participants took part in the study voluntarily, and freely. The subjects were informed about the purpose of the study, its course, planned duration, their rights to terminate the survey at any time, to refrain from answering particular questions, to manage the amount of information they want to share;
- the principle of providing information on ethical issues. The participants were explained how their anonymity and confidentiality would be ensured, provided with information on when and how they would find out the results of the study, and researchers' contact information;
- the principle of confidentiality. Study participants were assured that the information obtained during the study would be used only for the study and only by the researchers. Confidentiality of information was ensured throughout the analysis and publishing of research material;
- the principle of anonymity of subjects. To ensure this principle, the information about the participants was presented in a way that did not reveal their identities.

Results

Structure of social representation of mentoring relationship in pre-service teacher practicum

The content of representations was collected using the free association technique (Lo Monaco et al., 2017). The participants of the control group (n = 20) were asked to answer the question *What does the relationship with the mentor during the practicum mean to you?* and without

much thought to write down the associations that first come to mind, and then order the associations from the most to the least important (Lo Monaco et al., 2017). The number of associations was limited to four. In the verbal associations analysis, thematic grouping of close terms is carried out according to their semantic proximity (Lo Monaco et al., 2017, p.312) – identification of thematic categories. After evaluating the frequency of the first three associations received ($n = 80$), the content of the social representation of mentoring relationships in pre-service teacher practicum, which consisted of 12 associations most frequently occurring in their answers, was determined. Central core elements are identified considering the frequency and average importance in hierarchical evocations (Verges, 1994, as referred to by Lo Monaco et al., 2017) – combining both average rank of importance and average rank of appearance. The results acquired using hierarchical evocations need to be followed by a test of centrality (Lo Monaco et al., 2017). The questionnaire allows us to obtain an average mean for the items tested and disclose the relationships between the items in the representational field (Lo Monaco et al., 2017). Some researchers (Valence, 2010) use several hierarchical sorting indicators to classify the responses of study participants according to their frequency and rank. In the case of this study, the associations formed by the participants of the control group ($n = 20$) should be considered semantic units, therefore, for hierarchical sorting, they were asked to answer the main question: *Do you believe these aspects are important in the mentoring relationship between student teachers and their mentors during practicum?* Each semantic unit (association) was rated on a six-point scale. Table 1 presents the results of the control group ($n = 20$) questionnaire survey:

Table 1. Frequency and percentage of estimates of *mentoring relationship* representation elements by the control group ($n = 20$)

| | Semantic unit (association)/Frequency and percentage | 6 Very important | 5 Important | 4 Rather important | 3 Rather unimportant than important | 2 Unimportant | 1 Completely unimportant |
|---|--|---------------------|----------------|-----------------------|--|------------------|-----------------------------|
| 1 | Respect | 20 (100%) | 0 | 0 | 0 | 0 | 0 |
| 2 | Support | 16 (80%) | 4 (20%) | 0 | 0 | 0 | 0 |
| 3 | Cooperation | 12 (60%) | 2 (10%) | 6 (30%) | 0 | 0 | 0 |
| 4 | Student's personal development | 10 (50%) | 4 (20%) | 5 (25%) | 1 (5%) | 0 | 0 |
| 5 | Mentor's empathy | 10 (50%) | 4 (20%) | 4 (20%) | 2 (10%) | 0 | 0 |
| 6 | Mentor's time devoted to student | 10 (50%) | 4 (20%) | 4 (20%) | 2 (10%) | 0 | 0 |
| 7 | Politeness | 7 (35%) | 5 (25%) | 5 (25%) | 2 (10%) | 0 | 0 |
| 8 | Experiencing tension, stress | 7 (35%) | 5 (25%) | 2 (10%) | 2 (10%) | 3 (15%) | 1 (5%) |

| | | | | | | | |
|----|------------------------------------|---------|----------|----------|----------|---------|---------|
| 9 | Student's lack of confidence, fear | 3(15 %) | 9 (45 %) | 4(20 %) | 1(5 %) | 2(10 %) | 1(5 %) |
| 10 | Mentor's high expectations | 1(5 %) | 8(40 %) | 7 (35 %) | 4 (20 %) | 0 | 0 |
| 11 | Differences of opinion | 2(10 %) | 3(15 %) | 10(50 %) | 3(15 %) | 0 | 2(10 %) |
| 12 | Feeling oneself a burden | 4(20 %) | 5(25 %) | 3(15 %) | 3(15 %) | 3(15 %) | 2(10 %) |

The data show those semantic units (associations) that collected the most estimates (very important and important). As already mentioned, if a qualified majority (Wagner, 1994) of the study participants ($\geq 75\%$) (Lo Monaco et al., 2017) choose a positive response to a positive semantic unit without inversion or respond negatively to a negative semantic unit formulated by inversion, these semantic units (associations) become main elements of the central core of social representation (Moliner, Rateau & Cohen-Scali, 2002). The semantic units that collected less than 75 percent positive estimates became elements of the peripheral system. This threshold decision was made following the principle that the core as a highly stable part of representation is "shared by virtually all members of the group that created the representation" (Moliner & Tafani, 1997, p.689), whereas peripheral elements depend on the context and are subject to variations.

Based on the data obtained with the control group, it was found that the following semantic units (associations) should be considered the central core of social representation of mentoring relationships in pre-service teacher practicum: 1. Semantic unit (association): "Respect" – a very important element - 100%, 2. "Support" is a very important element - 80%, important - 20%. The first two items became the main elements of the central core, as their estimates (very important and important) significantly exceeded the expected estimate threshold ($\geq 75\%$). The other two semantic units with the highest estimates were considered to be elements of the peripheral system of representation of social representation of mentoring relationships in pre-service teacher practicum: 3. Semantic unit (association): "Cooperation" – a very important element - 60%, important - 10 percent; 4. Semantic unit (association): "Student's personal development" - a very important element - 50%, important - 20%. The aforementioned elements were identified as main elements of the peripheral system, as their estimates (very important and important), although not reaching the limit ($\geq 75\%$), still exceeded the estimates of other elements of the peripheral system.

Verification of the structure of social representation of a mentoring relationship in preservice teacher education constructed by student teachers.

The experimental groups ($n = 48$) were interviewed each group ($n = 12$) separately about the semantic units/associations generated by the control group and asked to evaluate them on a six-point scale expressing agreement/disagreement to a statement that was formulated in a negative form (with inversion).

Table 2. Verification of the structure of social representation of experimental groups (n = 48).

| Semantic unit | 6 Completely agree | 5 Agree | 4 Rather agree than disagree | 3 Rather disagree than agree | 2 Disagree | 1 Completely disagree |
|---|--------------------------|------------|---------------------------------------|---------------------------------------|---------------|-----------------------------|
| 1. Respect is not essential to the relationship between the student teacher and their mentor-teacher (central core element) (Group a: n=12) | | | | | | |
| 2. Support is not essential to the relationship between the student teacher and their mentor-teacher (central core element) (Group b: n=12) | | | | 8,33 % | 58,33 % | 33,33 % |
| 3. Mutual cooperation is not essential to the relationship between the student teacher and their mentor-teacher (peripheral system element) (Group c: n=12) | | | 8,33 % | 16,67 % | 33,33 % | 41,67 % |
| 4. Student's personal development is not essential to the relationship between the student teacher and their mentor-teacher (peripheral system element) (Group d: n=12) | | | 8,33 % | 8,33 % | 25% | 50 % |

The interview data presented in the table show that the principle of double denial occurred when verifying the central and peripheral elements of social representation generated by the control group. Therefore, it can be stated that the study participants confirmed the main elements of the central and peripheral representation system distinguished from the control group because there is expressed disagreement with the given semantic units (associations): 1. Respect is not important to the communication and relationship between the student teacher and their mentor-teacher – “completely disagree” (100%); 2. Support is not important to the communication and relationship between the student teacher and their mentor-teacher – “completely disagree” (25%); “disagree” (58.33%); 3. Mutual cooperation is not important to the communication and relationship between the student teacher and their mentor-teacher – “completely disagree” (66.67%), “disagree” (33.33%); 4. Student's personal development is not important to the communication and relationship between the student teacher and their mentor-teacher – “completely disagree” (58.33%); “disagree” (41.67%).

Results of repeated measures research after the experiment

The experimental groups were formed, as already mentioned, on the basis of different interview conditions, i.e., different representation element - dependent variable - elements of central or peripheral system and independent information source reliability variable: 1. Group (a) (n =

12) - high reliability of information source of central representation element; 2. Group (b) (n = 12) - low reliability of the information source of the central element of the representation; 3. Group (c) (n = 12) - high reliability of the information source of the peripheral element of the representation; 4. Group (d) (n = 12) - low reliability of the information of the peripheral element of the representation. The research participants were informed that the researchers wished to share available information on mentoring relationship in pre-service teacher practicum, which was the purpose of the meeting, so that groups (a) and (c) were given quotes, excerpts from official documents, and other credible sources of information relevant to the topic of the central or peripheral element respectively. Meanwhile, groups (b) and (d) were given quotations, and excerpts from unreliable sources of information sometimes providing information which went against the subjects' opinions of the association created. During a discussion which followed, the participants responded to the sources of information provided with new arguments in different ways. It was possible to observe a certain disturbance, dissatisfaction, and doubt. Some of them accepted and only confirmed their opinion, whereas others contradicted the information of the sources. It can be argued that the information provided had one or another effect on the subjects' opinions. Some participants asked if there was an opportunity to change their previous estimates. The researchers said it was not possible. The discussion ended with a thank you for active participation.

During the second stage of the study, a survey was conducted a few months later to find out whether the dynamics of social representation of mentoring relationships in pre-service teacher practicum took place, with different interview conditions and time for reflection. Therefore, in May 2023, the four experimental groups (n=48) were provided with the same semantic units (associations) formulated without inversion for evaluation on a six-point scale. During the second survey, it was assumed that (in our case, after two months) the study participants may have forgotten the name of the source of information they relied on, or its reliability in assessing the semantic unit because they would remember the study organizer and the emotions caused by the information. Perhaps the reliability of the source decreased, but doubts remained about the previous answers to the questions, giving another opportunity to assess the semantic unit (association) independently and more carefully.

The results obtained through answers to the main question (*Do you believe that these elements of the social representation of a mentoring relationship in pre-service teacher practicum are important?*) and evaluation of the semantic unit on a six-point scale are presented in Table 3.

Table 3. Structure of Representation of Social Interactions in Experimental Groups (n = 48) and Its Dynamics: Percentage Expression of Repeated Measures Research Results

| Element of the social representation of the mentoring relationship | 6 Completely agree | 5 Agree | 4 Rather agree than disagree | 3 Rather disagree than agree | 2 Disagree | 1 Completely disagree |
|---|--------------------|---------|------------------------------|------------------------------|------------|-----------------------|
| Group (a): Respect (central core element + high credibility of information source | 83,33 % | 8,33 % | | 8,33 % | | |



| | | | | | | |
|---|---------|---------|--------|---------|--|--|
| Group (b): Support (central core element + low credibility of information source) | 33,33 % | 41,67 % | 25 % | | | |
| Group (c): Cooperation (peripheral system element + high credibility of information source) | 50 % | 33,33 % | | 16,67 % | | |
| Group (d): Student's personal development (peripheral system element + low credibility of information source) | 25 % | 50 % | 8,33 % | 16,67 % | | |

Based on the results of the study, it can be stated that in group (a), with high reliability of the information source of the central element of representation, the dynamics of social representation are observed insignificantly. Verifying the results of the control group, 100% was obtained (“completely disagree” in the case of inversion). In the experimental group (a), the evaluation (“completely agree”) decreased to 83.33 percent in the repeated measures research. However, it should be emphasized that the central element of the social representation, though changed, remained the central core, as the answers “completely agree” and “agree” are more than 75%.

With low reliability of the information source of the central element of representation (group b), the repeated measures research shows low dynamics of social representation (“completely agree” - 33.33% and “agree” – 41,67%), and when verifying the results of the control group “completely disagree” – 33,33%, “disagree” - 58,33 % in the case of inversion. Thus, in this experimental group (b), “Support” remains a central element of the social representation of mentoring relationships in pre-service teacher practicum, and its dynamics are minimal.

In the case of this study, it is assumed that when the central system of social representation is questioned, the defense mechanism of the system described by Flament and colleagues (Flament, 2001; Flament, Guimelli & Abric, 2006) is triggered. This means that in the absence of a sudden and brutal change in the central system of representation, the representation itself will not change. Consequently, student teachers will continue to believe that respect and support are among the most significant central elements in the representation of mentoring relationships in pre-service teacher practicum.

The results of the experimental group (c) are somewhat different - after applying a credible source of information, the semantic unit “Cooperation”, which before the repeated measures research was considered a peripheral element of representation, became central, as it collected 88.33% of the answers “absolutely agree” and “agree”. The difference from the result of the first survey when 75% completely disagreed or agreed with this semantic unit when inversion was applied is quite significant. Consequently, not only the dynamics of social representation are observed, but also changes in its elements. The presented credible sources of information influenced the change of the element, and thus the dynamics of the peripheral element of social representation is observed.

In the experimental group (d), after applying a low credibility source of information, the semantic unit “Student’s personal development” remained as a peripheral element of the

representation, although some dynamics are observed. The result of complete agreement with the statement of 25 % during the survey showed a shift from 50%, which was obtained by verifying the control group data and applying inversion. However, this was generally balanced by an opposite shift in the “agree”/ “disagree” with inversion from 25 % to 50%.

Discussion

Social actors' representations are a mental construct that reflects interrelationships and links between situations. Social representations have a dual role: they make the visual images recognizable and the invisible-visible perceptible and comprehensible (Moscovici, 2008). Unrecognizable, incomprehensible aspects cannot belong to any of the categorized, species, or groups. This approach may be relevant to student teachers establishing relationships with the mentors during their pre-service practicum. Student teachers may resort to social representations to refine and integrate visualizations into perceptions of the mentoring relationship, in conceptualizing, and constructing interpersonal relationships and social sustainability of practicum activities.

Abric (2005) highlighted and described elements of four categories of social representations: 1) cognitive elements, which allow an individual to understand and explain reality, to define a common system of core values for all members of the group maintaining inter-group communication. Representations allow an individual to integrate knowledge into the environment of knowledge he understands, to classify things new to the individual's cognitive world, and, thus, to reduce the number of abstract aspects. Representations form the foundation of social communication of individuals, which is only subject to the availability of representations; 2) behavioral orientation: the purpose of representations is to influence another individual and the world. Using available representations, which make sense of the object, an individual orients his/her behavior, and attitudes. Respectively, representations organize all social behaviors and communications and determine the preferred behavior: “The one who breaks or weakens ties with the center of the group will become repulsive. The one who finds himself on the fringes of the center of the group will become aesthetically intolerable” (Maffesoli, 2002, p. 251). In addition, representations perform the function of anticipation of social relations. Interpersonal relationships are constructed when individuals meet each other to act, create, do, or produce something. This creates an entire system of attitudes, and expectations, the so-called pre-decoding system of reality, as it provides for a totality of anticipation of expectations (Abric, 2003). Once group members agree on a common vision of reality, it guides their day-to-day activities and communication. If group members fail to share a vision, this may give rise to conflict among them.

If we take a closer look at the significance of social representations for social interaction, we might explain in more detail what determines our communication. Individuals come together for a joint activity, a project which usually means that they have a common vision of the activity, social representations, and commitments to reach the goal. Consequently, any actor, teacher or student, police officer or citizen, physician or patient creates their own social representations which they use when they speak, influences, interact, evaluates, think, seeks one or another form of social behaviour. The analysis of social representations in any field of professional activity requires specific research methodologies. In their purely mediating functions, social representations combine different codes and are inseparable from the language

that becomes the space where they are expressed and are understood by other individuals. The real "memory" of social representations is written language. The incomprehensible meaning of words, through written language or other means of communication, highlights one's own and other individuals' social representations. Language and communication penetrate the social context of the creation and consumption of representations. The aim of each methodology for the analysis of social representations is to combine representations, language, practical activities, and values, therefore the methods and techniques of qualitative analysis are most often used.

Social representations, as a form of environmental knowledge, have many complex links to identity and form systems of interaction with the social world (Moliner, Rateau, & Cohen-Scali, 2002). They ensure the regulation of intergroup relations, impact the construction or reconstruction of social identity, and allow the assessment of the social environment and the explanation of social behavior (Moloney, 2010). Social representations and their dynamics are systems of interpretation and understanding collective social environment. Therefore, they are related to identity dynamics, as identity is constructed and transformed during a person's cognitive participation in their different environments. Consequently, in the case of the professionalization of student teachers and their mentors, the social sustainability of the organization, it is worth understanding and evaluating the impact of social representations on communication, becoming a professional actor, integration into the world of professional activity, field, team, construction of professional identity. Among other things, social sustainability is maintained not only by new ideas, but also by the perception and implementation of social practices (Castro, & Michel-Guillou, 2010; Jodelet, 2006).

As a system of central and peripheral elements, social representations help to establish social interrelationships using values and practices. Social relationships are the interdependence of people that arises from conscious or unconscious, inevitable or accidental, organized or spontaneous social relationships and social interactions. Elements of the peripheral system reveal more individual dimensions of social interaction representation (Abric, 2011), therefore the peripheral system of social representations (in this study "Mutual cooperation" and "Student's personal development"), and especially its dynamics helps to adapt to everyday environmental changes and change social behaviors of individuals. Social representation is a sufficiently dynamic configuration that can absorb new information into what is already available, and therefore some dynamics of representations are possible. New information that has changed the meaning of the peripheral element may change the social representation itself over time, as was the case in our study – "Cooperation" from the peripheral element became the central element of social representation. The presented reliable sources of information influenced the change of the element determining the dynamics of the peripheral element of social representation. Peripheral elements are not all equally important. This study focuses on those peripheral elements of social representation that have received the most attention from study participants employing the principle of double denial, but not so much that they have become central elements of the system, i.e., qualitative characteristics. Thus, peripheral elements that have received the most attention can influence individuals' attitudes, beliefs, and social behaviors. Social behavior is basically a response to what is acceptable and unacceptable in a specific culture. Social behavior determines how individuals or certain social groups interact and is often used to create an appropriate social environment that also influences social

behavior. Social behavior is determined by social relations, social norms, prevailing attitudes, values, etc.

Information obtained from a credible source that casts doubt on the peripheral element results in the transformation of the representation itself, as would be the case if the central core element were questioned. If a peripheral system of social representation helps a person to adapt to everyday changes in the environment and is closely related to the social activities of individuals, such a conclusion could be relevant to actors seeking to change their limited approach to social interactions between student teachers and mentors when the latter is understood only as communication or mutual understanding.

Assessment and the fact that representations have numerous ties that connect everyone with others, with themselves, and with the surrounding environment, allows for explaining in more detail how a person becomes a social actor responsible for one's professional development. The results of this study can be beneficial for enhancing pre-service student practicum so that to better understand the essence of the practical teacher training, social interaction, student teachers' and mentors' role, and professional behavior to form positive attitudes to showing respect, giving support, fostering cooperation, and student's personal development. This research, therefore, should be continued with other samples from the field of pre-service teacher education, and involve an analysis of structures of social representations and dynamics thereof.

Conclusion

The study shows that the representation of *mentoring relationships in pre-service teacher practicum*, related to research participants, consists of the following elements: 1. Respect; 2. Support; 3. Cooperation; 4. Student's personal development; 5. Empathy; 6. Mentor's time devoted to student; 7. Politeness; 8. Dealing with tension, and stress; 9. Student's lack of confidence; 10. Mentor's high expectations; 11. Differences of opinion; 12. Dealing with the feeling of burden.

In response to the second problem question of the study, i.e., what makes central and peripheral elements of representations of the study participants' - student teachers in pre-service teacher practicum relationship with their mentors, *Respect*, and *Support* were identified as central elements of social representation, while *cooperation* and *Student's personal development* were identified as peripheral elements of representation. Elements of the central and peripheral systems of social interaction representation of mentoring relationships in pre-service teacher practicum were identified and verified by involving experimental groups, through inversion. The structure of *social representation of mentoring* as highlighted by the control group was validated by the experimental groups. The repeated survey showed that the variable of source credibility may determine the structure and dynamics of social representation. Therefore, *cooperation* became a central element in the representation of mentoring relationships in pre-service teacher practicum. Other alterations in the social representation structure, though, not so pronounced, were also observed.

This demonstrates that the potential dynamics of representation elements of mentoring relationships in pre-service teacher practicum depend on the credible source of information and a persuasion paradigm applied. The representation dynamics became more intense when participants of the study were provided with information from credible sources. Thus, any new

information, reinforced by a persuasion paradigm, may change the essence of an element, and then, after a certain time, the representation of *social interaction* may also change.

The results of the research may induce social interactions, research, and development in pre-service teacher education and teacher and student activities in practicum adopting an environmentally friendly approach, and may provide some useful insight into the design of more relevant preservice teacher practicum, and mentor professional development taking into consideration the perspective of the mentoring relationship.

References

- Abric, J. C. (1993). Central system, peripheral system: their functions and roles in the dynamics of social representations. *Papers on Social Representations*, 2(2), 75-78.
- Abric, J. C. (2003). L'étude expérimentale des représentations sociales. In D. Jodelet (Ed.), *Les représentations sociales* (pp. 203-223). Presses Universitaires de France. <https://doi.org/10.3917/puf.jodel.2003.01.0203>
- Abric, J. C. (2005). *Méthodes d'étude des représentations sociales*. Paris: Erès.
- Abric, J.C. (1996). Specific processes of social representations. *Papers on Social Representations*, 5(1), 77-80.
- Almeida, M. T. C., Maia, F. A., Hoffmen, E. J., Barbosa, A. T. F., Sampaio, C. A., Ramos, L. G. D., & Rodrigues, J. F. (2019). Faculty Development: Social Representations Constructed by Medical School Teachers. *Revista Brasileiro De Educaco Medica*, 43(2), 176-186. <https://doi.org/10.1590/1981-52712015v43n2RB20180101ingles>
- Badia, A., & Clarke, A. (2022) The practicum-mentor identity in the teacher education context, *Teaching Education*, 33(4), 355-371. <https://doi.org/10.1080/10476210.2021.1920910>
- Cadavid-Munera, I. C. (2022). Children's social representations of English teaching and learning: A study in Medellin, Colombia. *Profile: Issues in Teachers' Professional Development*, 24(1), 97-113. <https://doi.org/10.15446/profile.v24n1.93408>
- Camargo, P.da S. A. S. (2017). Representações Sociais de Docentes da EJA: afetividade e formação docente. *Educação & Realidade*, 42(4), 1567-1589. <https://doi.org/10.1590/2175-623663306>
- Castro, P., & Michel-Guillou, E. (2010). Le développement durable et l'innovation législative: De la construction des idées à la compréhension des pratiques. In K. Weiss & F. Girandola (Eds.), *Psychologie du développement durable* (pp. 141 – 155). Paris: In Press Editions.
- Clifford, E.F. (1999). A Descriptive study of Mentor-Protégé Relationships, Mentor's Emotional Emphatic Tendency, and Protégés' Teacher Self-Efficacy Belief. *Early Child Development and Care*, 156(1), 145-154. <https://doi.org/10.1080/0300443991560109>
- Costa, G. D., & Cotta, R. M. M. (2014). O aprender fazendo: representações sociais de estudantes da saúde sobre o portfólio reflexivo como método de ensino, aprendizagem e avaliação. *Interface - Comunicação, Saúde, Educação*, 18(51), 771-784. <https://doi.org/10.1590/1807-57622014.0150>
- Dani, D., Harrison, L., Felton-Koestler, M., Kopish, M., Dunham, J., Hallman-Thrasher, A., & Shaw, O. (2021). Nature of Mentoring Interactions to Support Teacher Candidate Learning in Clinical Settings. *Peabody Journal of Education*, 96(1), 76-86. <https://doi.org/10.1080/0161956X.2020.1864248>

- Durkheim, E. (1898). *Représentations individuelles et représentations collectives*. *Revue de Métaphysique et de Morale*, 6, 273-302.
http://classiques.uqac.ca/classiques/Durkheim_emile/Socio_et_philo/ch_1_representations/representations.pdf
- Duveen, G. (2001). Representations, identities, resistance. In K. Deaux, G. Philogene (Eds.), *Representations of the Social: Bridging Theoretical Traditions* (pp. 257-270). Oxford: Blackwell Publishers.
- Flament, C. (2001). Approche structurale et aspects normatifs des représentations sociales. *Psychologie & Société*, 4(2), 57-80.
- Flament, C. (2001). Approche structurale et aspects normatifs des représentations sociales. *Psychologie & Société*, 4(2), 57-80.
- Flament, C., & Rouquette, M.L. (2003). *Anatomie des idées ordinaires: Comment étudier les représentations sociales*. Paris: Arman Colin.
- Flament, C., Guimelli, C. & Abric, J. C. (2006). Effets de masquage dans l'expression d'une représentation sociale. *Les Cahiers Internationaux de Psychologie Sociale*, 69, 15-31.
<https://doi.org/10.3917/cips.069.0015>
- Flament, C., Guimelli, C., & Abric, J. C. (2006). Effets de masquage dans l'expression d'une représentation sociale. *Les Cahiers Internationaux de Psychologie Sociale*, 69, 15-31.
<https://doi.org/10.3917/cips.069.0015>
- Gebran, R. A., & Trevizan, Z. (2018). Social representations in the construction of professional identity and teaching work. *Acta Scientiarum. Education [online]*, 40(2), 13-44.
<https://doi.org/10.4025/actascieduc.v40i2.34534>
- Gonzalez, E. O. L. (2020). Formation: Social Representations of Higher Education Teachers in Mexico. *Journal of Information Technologies and Lifelong Learning*, 3(1), 151-158.
- Hudson, P. (2016). Forming the Mentor-Mentee Relationship. *Mentoring & Tutoring: Partnership in Learning*, 24(1), 30-43.
<https://doi.org/10.1080/13611267.2016.1163637>
- Jatkauskienė, B., Norkienė, S., Nugaras, M., & Norkutė-Macijauskė, U. (2019). Visuomenės sveikatos specialistų veiklos socialinės reprezentacijos struktūra ir jos dinamika. *Sveikatos mokslai / Health Sciences in Eastern Europe*, 29(3), 11-15.
<https://doi.org/10.5200/sm-hs.2019.010>
- Jodelet, D. (2006). Place de l'expérience vécue dans le processus de formation des représentations sociales. In V. Haas (Ed.), *Les savoirs du quotidien. Transmissions, Appropriations, Représentations* (pp. 235-255). Rennes: Les Presses universitaires de Rennes.
- Linton, A.-C., Germundsson, P., Heimann, M., & Danemark, B. (2015). School Staff's Social Representation of Inclusion of Students with Autism Spectrum Disorder (Asperger). Retrieved from <https://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-121059>
- Lo Monaco, G., Piermatteo, A., Rateau, P., & Tavani, J. L. (2017). Methods for studying the structure of social representations: A critical review and agenda for future research. *Journal for the Theory of Social Behaviour*, 47(3), 306-331.
<https://doi.org/10.1111/jtsb.12124>
- Losada, M. R. (2014). Social Imagination and Social Representations: The Possibility of Dialogue between Castoriadis and Moscovici. *Papers on Social Representations*, 23(2), 166-177.

- Maffesoli, M. (2002). *La transfiguration du politique, la tribalisation du monde postmoderne*. Paris: La table ronde.
- Martikainen, J. (2019). Social representations of teachership based on students' and teachers' drawings of a typical teacher. *Social Psychology of Education*, 22, 579-606. <https://doi.org/10.1007/s11218-019-09490-w>
- Mazilescu, C. A., Popescu Mitroi, M. M., Draghici, A., Mihartescu, A. A., & Pop, M. C. (2010). Representation of teaching competency to students and teachers. *Annals of DAAAM & Proceedings*, 19+. <https://link.gale.com/apps/doc/A246013575/AONE?u=anon~3cdb4147&sid=googleScholar&xid=bbe04334>
- Moliner, P. (2015). Objectivation Et Ancrage Du Message Iconique. Propositions Théoriques Et Pistes De Recherche. *Societes*, 130, 81-94.
- Moliner, P., & Tafani, E. (1997). Attitudes and social representations: A theoretical and experimental approach. *European Journal of Social Psychology*, 27(6), 387-702. [https://doi.org/10.1002/\(SICI\)1099-0992\(199711/12\)27:6<687::AID-EJSP839>3.0.CO;2-7](https://doi.org/10.1002/(SICI)1099-0992(199711/12)27:6<687::AID-EJSP839>3.0.CO;2-7)
- Moliner, P., Rateau, P., & Cohen-Scali, V. (2002). *Les représentations sociales. Pratiques des études de terrain*. Presses universitaires de Rennes.
- Moloney, G. (2010). Acknowledging Gerard. Articulating social representations and identity through process & content: The resettlement of refugees in regional Australia. *Papers on Social Representations*, 19(1), 15.1-15.16.
- Moscovici, S. (1961). *La psychanalyse, son image et son public*. Paris: Presses universitaires de France.
- Moscovici, S. (1969). Préface. In C. Herzlich, *Santé et maladie. Analyse d'une représentation sociale* (pp. 7-12). Paris: Mouton. <https://doi.org/10.1515/9783111561554-001>
- Moscovici, S. (2008). *Psychoanalysis: Its Image and Its Public*. Cambridge: Polity.
- Pelini, E. S. (2011). Social Representations and their Effect on the Construction of Professional Identities. *The International Journal of Interdisciplinary Social Sciences*, 5(9), 237-247. <http://www.SocialSciences-Journal.com>, ISSN 1833-1882
- Petty, R. E., & Cacioppo, J. T. (1998). *Attitudes and Persuasion: Classic and contemporary approaches*. Dubuque: Brown.
- Raskin, J. D. (2002). Constructivism in Psychology: Personal construct psychology, radical constructivism, and social constructionism. In J. D. Raskin & S. K. Bridges (Eds.), *Studies in meaning: Exploring constructivist psychology* (pp. 1-25). New York: Pace University Press.
- Rouquette, M. L., & Rateau, P. (2009). *Introduction à l'étude des représentations sociales*. Grenoble: P.U.G.
- Sandvik, L. V., Solhaug, T., Lejonberg, E., Elstad, E., & Christophersen, K-A. (2019). Predictions of school mentors' effort in teacher education programmes/programs. *European Journal of Teacher Education*, 42(5), 574-590. <https://doi.org/10.1080/02619768.2019.1652902>
- Silva, R. D., Dias, A. A., & Pimenta, S. A. (2014). Professionalism and teacher education: Social representations of Teachers. *Revista Diálogo Educacional*, 14(42), 549-568. <https://doi.org/10.7213/dialogo.educ.14.042.AO02>

- Tafani, E., & Bellon, S. (2001). Principe d'homologie structurale et dynamique représentationnelle. In P. Moliner (Ed.), *La dynamique des représentations sociales* (pp. 163-194). Grenoble: Presses Universitaires de Grenoble.
- Tafani, E., & Souchet, L. (2001). Changement d'attitude et dynamique représentationnelle. In P. Moliner (Ed.), *La dynamique des représentations sociales* (pp. 59-88). Grenoble: Presses Universitaires de Grenoble.
- Valence, A. (2010). *Les représentations sociales*. Bruxelles: De Boeck.
<https://doi.org/10.3917/dbu.valen.2010.0>
- Wagner, W. (1994). Fields of Research and socio-genesis of social representations: A discussion of criteria and diagnostics. *Social Science information*, 33(2), 199-228.
<https://doi.org/10.1177/053901894033002004>

4. ONLINE TRAINING AND SHARING OF BEST PRACTICES: AN INNOVATION NETWORK FOR THE ACCOMPANIMENT AND PROFESSIONAL DEVELOPMENT OF ITALIAN TEACHERS DURING COVID-19

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Abstract

The COVID-19 emergency represented a time of crisis for education, particularly in those countries where schools had not had a well-established experience in distance learning, including Italy.

With the aim of providing support to the educational community during the pandemic, a cycle of 41 webinars was organized, focusing on a series of core themes of educational innovation. The initiative was based on mentoring, exchange and reflective transfer of knowledge and fits into the actions put in place by *Avanguardie educative* – a schools network, which counts today almost 1500 schools, to respond to the global turn to remote teaching.

The participants were given a satisfaction questionnaire at the end of each webinar and a follow-up questionnaire at the end of the cycle. The survey made it possible to investigate emerging needs in training and professional development of this ‘professional learning community’. The investigation on learning needs was followed by an analysis of the initiative’s usefulness in relation to coaching and professional development of the attendees. More than 3180 participants answered the satisfaction questionnaire while the follow-up questionnaire obtained n. 1068 responses.

The survey results show an excellent appreciation of the overall training proposal, pointing out its efficacy as a coaching/professional development tool. The value of the proposed training offer in view of professional development is also confirmed by the high networking rate promoted by the initiative.

The results of this study prompt further investigation into the dynamics of exchange and professional development mediated by webinar technology.

Keywords: *Covid-19; learning networks; professional learning community; professional development; teacher training*

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Introduction

The school years 2019/20 and 2020/21 marked a period of profound crisis for Italian schools: the health emergency led to a situation of great uncertainty, forcing the schools to operate in a context of unprecedented challenges and ongoing evolution. The suspension of face-to-face

teaching activities and the introduction of distance learning have indeed brought out some new difficulties, but at the same time they have generated valuable opportunities for the rethinking, renewal and experimentation of teaching and organisational practices (Carretero Gomez et al., 2021; Flores 2020; INDIRE 2020, 2021; SIRD 2021).

The years of the pandemic were characterized by the complexity of changes in education and the strong need for professional support perceived by teachers (Nigris et al., 2020). Unfortunately, the teachers already prepared for distance learning were in fact a small minority (Ferri, 2021) and this is largely due to the fact that teacher training programs from a didactic and pedagogical point of view represent an area which is not usually practiced by Italian teachers, if compared with other European realities (Wastiau, 2013). In the new and unexpected situation created by the interruption of traditional teaching methods, it is likely that teachers had to deal with disorienting dilemmas which pushed them to review their mental habits and redirect their actions (Mezirow, 2016). Therefore, if, on the one hand, educators had to face a destabilizing uncertainty (Perla & Riva, 2016), on the other hand, we can say that such lack of certainty has stimulated a new research on the meaning, purposes and methods of education in the light of the ongoing changes (Tramma, 2018).

Institutions and teacher educators had to quickly respond to an unexpected and ‘forced’ transition from face-to-face to remote teaching and new online teaching practices (Carrillo & Flores, 2020; König et al., 2020). During this period of criticality and rapid change, a clear demand for ‘just-in-time professional development’ arose from below (Neumann & Smith 2020, 527). Many educational institutions and educational services have decided to adopt digital technologies and diversified distance learning tools. Among the latter, webinar-based training has carved out a significant role. During the early stages of the health emergency, webinars for professional development were not only an essential and practical tool to provide training in compliance with social distancing measures, but also an opportunity for teachers, educators and operators to experiment with distance learning and teaching in the role of students. Webinars thus supported the acquisition of skills for remote teaching at a time when in-presence training events had been globally disrupted by quarantine (Toquero & Talidong, 2020).

While for many years the provision of webinars has been spreading in the university environment as Massive Online Open Courses (MOOCs), this mode is still rarely practiced in schools. Furthermore, while distance learning technologies have long been studied in both the academic and professional fields, research on the use of webinars for teacher professional development is still lacking (Toquero & Talidong, 2020), although some studies indicate that teachers generally have positive perceptions produced by experience and learning mediated by these tools (Borup, 2020; Khanna & Thakrar, 2021).

According to the meta-analysis conducted by Gegenfurtner and Ebner (2019), webinars would often be more effective than asynchronous learning management systems - traditional classroom lectures - and would obtain a higher level of satisfaction from students than asynchronous education. Regardless of the sector, students provide positive feedback regarding the use of this technology, highlighting its greater flexibility and a series of advantages that are difficult to obtain with traditional offline and face-to-face interactions (Gegenfurtner et al., 2019).

During the lockdown, the webinar experience allowed comparison and solidarity both within the school professional community and within the community of the Italian social

services (Sanfelici et al., 2020), stimulating a dialogue between different professionals. Comparison processes have in many cases taken the form of peer tutoring and support between colleagues, which are typical of the communities of practice. These spontaneous and informal aggregations of professionals, built around common working practices, the comparison of knowledge, meanings and languages, are considered particularly relevant by the scholars. As highlighted by numerous studies, belonging to a ‘professional learning community’ (Hord & Summers, 2008; Sjoer & Meirink, 2015), is a crucial factor for the development of professionalism (Hattie, 2009).

Cooperation has grown in particular between teachers and educators, generating forms of tutoring by the more experienced ones, alongside diversified self-training initiatives (Pagani & Passalacqua, 2020). Peer tutoring as the ‘use of teaching and learning strategies in which students learn with and from each other without the immediate intervention of a teacher’ (Boud et al., 1999, 413) is a methodology rarely approached in literature on strategies of professional development of in-service teachers (Healy et al., 2020; Topping, 2005), but it has gained significant relevance following the changes made to education by the health emergency. Often combined with initial training and professional accompaniment of teachers (Paul, 2010), the peer tutoring methodology is also functional to in-service training where sharing professional experiences and enhancing the common belonging to the same community becomes essential (Magnoler, 2017).

The potential of the teachers’ new self-training methods (Nigris et al., 2020) and the contextual professional transformation generated by the pandemic situation (Safi et al., 2020) have pushed to enhance the so-called ‘learning networks’ as professional training tools of informal nature (Kelly, 2019), alongside the adoption of training methodologies based on peer tutoring (Rhodes & Beneicke, 2002) and on collaborative reflection (Clarà et al., 2017). In fact, many theoretical models in literature promote the benefits of learning networks as an informal teacher education tool (Kelly, 2019), thanks to the activation of mentoring processes (Geeraerts et al., 2015) and collaborative reflection (Clarà, 2019). The aim is to establish a professional learning community (Vescio et al., 2008) that progressively “emancipates” itself from top-down processes and becomes capable of sharing the analysis of its teaching practices and of autonomously elaborating hypotheses of problem-solving and improvement.

This study aims to investigate the training needs that emerged as a result of the changes affecting the various educational agencies in our country, as well as the online training courses’ effectiveness for peer support and professional development, in view of the construction of practical and professional communities that are functional to the diffusion and systemization of educational innovation. During the lockdown of Italian schools, INDIRE made use of the experience of accompanying schools along the processes of change and innovation gained over the years, and designed activities and services for teachers, students and families, such as the one described in this study, that focused on the value of the “Network” as a mentoring system (Mangione et al., 2020). The first part of the work describes the research context within which the training proposal and the training model that guides the proposed initiative are placed. The second part examines the methodological approach of the study. In the third and fourth parts the results are presented and discussed. The article closes with some considerations on possible future developments in terms of transferability of the experience.

Context of the research

The AE Network (*Avanguardia educative*; hereinafter the AE Movement/Network), which counts today almost 1500 schools of all levels distributed throughout the national territory, was born in 2014 from a joint initiative of INDIRE and 22 founding schools, the signatories of the Manifesto, in order to promote and support innovation processes in the school. Long before the pandemic events required a forced rethinking of the school model, with alternation and integration of learning situations between presence and distance and the use of new methodological-didactic solutions, *Avanguardia educative* promoted digital integration, in order to hybridize the transmissive lesson typical of the school in the presence.

The Movement has always been inspired by the encounter between the innovative drive coming from school institutions (bottom-up) and formalization processes and systematization of educational research (top-down). As underlined at the European level (OECD, 2013), the transformation of the school system implies the transition from a top-down approach to a more contextualized approach, based on the analysis of innovative experiences of schools (bottom-up). It is a participatory and collaborative approach, in which all actors play a role towards change and innovation by generating sub-networks of schools that in their innovative performance are linked to the main network (the AE Network).

In fact, the AE Movement contributes to promoting didactic and organisational innovation with a Gallery of innovative ideas, training and dissemination initiatives that support a constant methodological reflection of the school system as a whole. Through the “disruptive” and “generative” force of innovation ideas, the traditional school model, based essentially on the expository method of teaching, is transformed; triggering processes of change in teaching routines and rooting a culture of innovation based on new arrangements that reconfigure socio-educational ties and overturn the paradigm of the educating community, where the student becomes the active protagonist of the educational pathway.

The project can be configured as a research laboratory in continuous expansion: every year an average of 200 new schools (calculated over 6 years, 2015-2020) join the Movement and adopt at least one innovation idea, but over 40% have adopted at least three ideas. The main objective of the AE Movement is the advancement of knowledge and shared experiences among the member schools, for a “systemisation” on three levels: *micro* (in the professional practice of the individual), *meso* (of the class council(s) and/or department(s)) and *macro* (of the whole school in all its sub-articulations, in the relationship with the territory and stakeholders).

In its 8 years of activity, the AE Network of schools has given rise to many forms of widespread collaboration, giving a significant contribution to defining the new role of the school for the 21st century as a flexible learning environment, in an increasingly structured dialogue with the territory of reference and the stakeholders that act synergistically on it as “change makers” (Valera & Solesin, 2019).

In fact, the AE Movement applies a humanistic approach (UNESCO, 2019) to the meaning of “school”, moving the debate on education beyond the utilitarian role it plays in the economic development and according to which the teacher encourages learning by removing the obstacles that do not allow the full realization of the person as an active citizen, thus drawing inspiration from the concept of substantial equality of Art. 3 of the Italian Constitution. This approach influences the very definition of learning processes by focusing it

on the acquisition of useful knowledge and the development of skills at the service of our common humanity.

Avanguardia Educative is a community of practice and research as well as, at the same time, an opportunity for professional training in service: the transferability of the organisational and methodological-didactic best practice, guaranteed by the researchers' constant observation, monitoring and assessment, is intended as a lever to tackle the “paradigm of complexity” (UNESCO, 2021), thus allowing schools to learn to move on and adapt continuously in order to offer new significant educational opportunities. Among its major objectives, the AE educational community of practices aims to bring to the center and problematize learning by experience, teaching as research in action, and the relationship between practice and theory, in terms of support for critical and profound thinking.

The training model

The participatory and collaborative approach is consistent in all phases of the AE project: in the selection of innovative practices, in designing support for newcomers and in the assistance-coaching training model. This model is the result of a design work carried out by INDIRE researchers together with the schools of the Movement with more mature experiences in the area of innovation, and is aimed at ensuring that the adopting schools, i.e. the schools that adopt the “ideas” presented in the Gallery, co-construct meaning in a community of practice (Wenger, 2006) and receive support while experimenting with innovative practices. The model was designed with the aim of creating connections, relationships and networks between the schools of the Movement, in order to disseminate and systematize innovation according to the scheme on the social innovation process elaborated by Murray, Caulier-Grice and Mulga (2010). Researchers and teachers work together with a view to integrating theory and practice, implementing a mixed coaching process that includes experience, reflective observation, theory and experimentation and in which the two phases of learning and acting do not take place in successive moments but intertwine, highlighting the cognitive value of action (Laici et al., 2015).

Inspired by the Deming Cycle (1986), the assistance-coaching model is divided into the following phases and objectives:

- the “Plan” phase, in which schools establish the objectives to be achieved through the adoption of one or more ideas;
- the “Do” phase, dedicated to the implementation of ideas in the adopting school;
- the “Check” phase, which allows to verify the results obtained by highlighting the strengths and weaknesses, with the coaches' guidance (researchers and lead schools); and
- the “Act” phase, for the correction and improvement of performance.

This articulation allows for monitoring the improvement of processes and products *in itinere*. An important result of the application of the assistance-coaching method is the drafting of the Guidelines for the implementation of ideas, a document which, in addition to the contributions of research groups engaged in the various ideas, collects the experiences of the leading schools. In particular, the “Act” phase allows researchers to understand how the adopting school has customized the methodologies and the organisational models proposed while implementing and rooting the process described in the Guidelines (Laici & Orlandini, 2016). The deviation from the original practice has the dual effect, on the one hand, of generating various declinations of the same idea, the so-called variants, and on the other, of

allowing the leading schools to enrich their experiential baggage through a feedback system highlighting the critical issues that emerged from different application contexts.

The assistance-coaching training approach adopted by the AE Network, involving teachers from different school backgrounds, intends to enhance multilateral comparison and sharing of experiences as conditions that facilitate the recognition, analysis and therefore the solution of common professional problems, in line with the tradition of communities of practice and in continuity with some principles of Research-Training (Asquini, 2018).

Formarsi e confrontarsi con le Avanguardie educative

Teachers' training during the pandemic has not only brought out new needs but has also opened up new scenarios, first of all, because digital training has provided tools of immediate use, thus allowing teachers to work remotely, and secondly, because shifting to the online mode has enabled access to a potentially broader training offer than the traditional face-to-face one, which is usually confined to the territory in which the school is located (INDIRE, 2021).

In December 2020 INDIRE announced the first results of a survey among Italian teachers of all school levels, focused on teaching practices during the lockdown. The survey started in June 2020 (INDIRE, 2020), it was further developed in 2020-21 and its outcomes are described and analysed in the preliminary report published in December 2021 (INDIRE, 2021). Already the first results made available in July 2020 showed that the teaching components practiced by the Italian teachers during the first lockdown could be considered as a mere transposition of frontal lessons in the Distance learning mode, where digital tools were mainly used for video lessons, for the allocation of educational resources and for the external assessment carried out by the teacher. Only a minority of respondents appeared to have carried out active laboratory teaching, aimed at developing critical thinking and metacognition, using tools offered by distance learning in an innovative, interactive way. The same group of respondents, defined in the survey as 'laboratory teachers' also showed a strong propensity to continue online training (INDIRE, 2021, 43-50).

Following the survey, with the aim of enriching the training offer with tools and methodologies that could enhance teaching and learning beyond the emergency period, the cycle of free-access webinars *Formarsi e confrontarsi con le Avanguardie educative* was launched in September 2020 and lasted until March 2022.

The webinar series was designed for a wide audience, with the dual aim of involving school leaders, teachers and stakeholders also from outside the Movement, and of promoting reflection on cross-disciplinary topics, such as formative assessment, inclusion and integration, Media Education, orientation, soft skills, the transformation of learning environments as well as AE ideas and methodologies.

The webinars, led by INDIRE researchers with the participation of scholars and experts from the world of work, provided the opportunity to give voice to the innovation experiences gained by the schools of the AE Network in a comparison with other Schools, not belonging to the same Network. Particular attention was given to teaching practices in schools at the time of Covid-19, with in-depth studies aimed at understanding the sustainability of innovation proposals in the context of Distance teaching and learning. In order to promote the exchange of significant innovation experiences and to encourage discussion on issues that affect the entire school system, some events have been organized in

collaboration with other educational innovation networks operating at regional and/or national level.

41 webinars were delivered between September 2020 and March 2022, with an overall average of 157 participants for each online meeting. The webinars were aimed at deepening a series of core themes linked with school innovation. Each webinar was indexed with one or more of the following topics:

1. Rethinking the curriculum and training offer;
2. Educational planning, innovative educational strategies and methodologies;
3. Redesign of educational spaces and learning environments;
4. Design and management of distance learning;
5. Design and management of integrated digital teaching;
6. Pathways for soft skills and orientation;
7. Media education, digital skills and digital educational content;
8. Equity, diversity, inclusion and didactic differentiation;
9. Teaching by skills; and
10. Rethinking assessment methods.

According to the webinars' tagging, the number of participants and the schedule are shown in Table 1.

| Nº | Webinar topic | Participants | Month |
|----|---|--------------|----------------|
| 1 | Redesigning educational spaces and learning environments | 465 | September 2020 |
| 2 | Media education, digital skills and digital learning contents | 359 | October 2020 |
| 3 | Design and management of "integrated" digital didactics | 1045 | November 2020 |
| 4 | Paths for transversal skills and orientation | 100 | November 2020 |
| 5 | Paths for transversal skills and orientation | 169 | November 2020 |
| 6 | Paths for transversal skills and orientation | 148 | November 2020 |
| 7 | Design and management of Distance teaching/learning | 122 | November 2020 |
| 8 | Paths for transversal skills and orientation | 129 | December 2020 |
| 9 | Didactic planning, innovative strategies and methodologies | 55 | December 2020 |
| 10 | Equity, diversity, inclusion and didactic differentiation | 169 | January 2021 |
| 11 | Rethinking testing and assessment methods | 394 | January 2021 |
| 12 | Rethinking testing and assessment methods | 192 | January 2021 |
| 13 | Media education, digital skills and digital learning contents | 300 | February 2021 |
| 14 | Rethinking testing and assessment methods | 220 | February 2021 |
| 15 | Didactic planning, innovative strategies and methodologies | 144 | February 2021 |
| 16 | Design and management of "integrated" digital didactics | 109 | March 2021 |
| 17 | Design and management of "integrated" digital didactics | 202 | March 2021 |
| 18 | Design and management of "integrated" digital didactics | 194 | April 2021 |
| 19 | Design and management of "integrated" digital didactics | 79 | April 2021 |
| 20 | Rethinking testing and assessment methods | 83 | April 2021 |
| 21 | Design and management of "integrated" digital didactics | 156 | April 2021 |
| 22 | Media education, digital skills and digital learning contents | 34 | April 2021 |
| 23 | Design and management of "integrated" digital didactics | 36 | May 2021 |
| 24 | Media education, digital skills and digital learning contents | 66 | May 2021 |
| 25 | Rethinking testing and assessment methods | 68 | May 2021 |



| | | | |
|----|---|-----|---------------|
| 26 | Didactic planning, innovative strategies and methodologies | 237 | May 2021 |
| 27 | Rethinking the curriculum and the educational offer | 67 | May 2021 |
| 28 | Didactic planning, innovative strategies and methodologies | 44 | May 2021 |
| 29 | Equity, diversity, inclusion and didactic differentiation | 37 | May 2021 |
| 30 | Media education, digital skills and digital learning contents | 32 | May 2021 |
| 31 | Didactic planning, innovative strategies and methodologies | 118 | May 2021 |
| 32 | Rethinking the curriculum and the educational offer | 35 | June 2021 |
| 33 | Didactic planning, innovative strategies and methodologies | 53 | June 2021 |
| 34 | Rethinking the curriculum and the educational offer | 76 | June 2021 |
| 35 | Media education, digital skills and digital learning contents | 66 | June 2021 |
| 36 | Didactic planning, innovative strategies and methodologies | 47 | June 2021 |
| 37 | Didactic planning, innovative strategies and methodologies | 47 | June 2021 |
| 38 | Didactic planning, innovative strategies and methodologies | 40 | June 2021 |
| 39 | Competency-based teaching/learning | 430 | February 2022 |
| 40 | Rethinking the curriculum and the educational offer | 51 | March 2022 |
| 41 | Didactic planning, innovative strategies and methodologies | 58 | March 2022 |

Table 1 Formarsi e confrontarsi con le Avanguardie educative - Indexing of webinars

Methodology

Research objectives

The study presented here aims to investigate the usefulness of the webinar cycle *Formarsi e confrontarsi con le Avanguardie educative* for the purpose of intercepting the training needs of the Italian educational community during the pandemic period in relation to innovative educational practices.

Research questions

The study starts with the following research questions:

- RQ1. What was the degree of satisfaction in relation to the training usefulness during the webinar cycle?
- RQ2. What kind of needs emerged during the proposed webinar cycle in terms of training, upgrading and professional development?
- RQ3. What was the degree of satisfaction in relation to the training usefulness at the end of the webinar cycle?
- RQ4. What was the participants' feedback at the end of the webinar cycle in relation to their professional development?

Tools, data collection and analysis procedure

In order to answer the research questions outlined above, two questionnaires were constructed: a satisfaction questionnaire and a follow-up questionnaire. Both questionnaires were first drafted by one researcher and then analysed and validated by a group of three other researchers. The satisfaction questionnaire combined closed and open-ended questions, whilst the follow-up questionnaire included only closed-ended questions.

The satisfaction questionnaire contained a short section on socio-demographic data and closed-ended questions aimed to sound out the degree of the training usefulness perceived by the participants during the webinar cycle, both with regard to the individual

meetings they had attended and to the proposed initiative as a whole; on the other hand, the open-ended questions were aimed at investigating the participants' training needs and requests for further in-depth study on specific themes during the pandemic period. The satisfaction questionnaire was administered through G-Suite's Google Forms between September 2020 and March 2022.

The follow-up questionnaire, in addition to a section reserved for socio-demographic data (gender, age, professional role), contained a series of closed questions to probe the degree of training usefulness perceived by participants at the end of the webinar cycle in terms of upgrading and professional development, and some questions aimed at investigating the possible impact of the initiative on professional networking. The follow-up questionnaire was administered in May 2022 using Microsoft Forms.

Both questionnaires were optional and anonymous. Descriptive-type statistical analysis was conducted for closed-ended questions, while open-ended answers were analysed through textual analysis and categorisation of the answers provided. Answers to open-ended questions were then included as an exemplification and clarification of the themes detected through the closed-ended questions, in support of the contextualisation and explanation of the quantitative data.

Participants

The questionnaires were administered to a convenience sample represented by the participants who voluntarily decided to take part in the research. It is therefore neither a probabilistic nor a representative sample of the Italian educators' target population, although it can be said to be significant, given the high response rate and the territorial distribution of the respondents.

To the satisfaction questionnaire (see Table 2), out of a total of 6476 participants, 3185 answered, i.e. almost a half. The sample consisted largely of teachers, a small proportion of school leaders and the remainder of educators, university students and/or others. Of the staff population working in educational institutions, most respondents belong to Secondary Schools, a large share to Primary Schools and the remainder is distributed between First Grade Secondary Schools and Pre-schools. Membership of the AE Movement was also surveyed and 1450 participants declared to have already been members of the Network while the remaining 1735 had not yet joined the Network at the time the questionnaire was filled in. With regard to the professional origin of the participants (i.e. where the school is located), the initiative managed to cover all the Italian regions.

| Response rate | Gender | Role | School level | AE member | Area |
|---------------|---|---|--|---|--|
| 3185 (49.1%) | F = 2774 (87%) M = 403 (12.6%) Other = 8 (0.4%) | School leader = 47 (2.5%) Teacher = 2828 (88.8%) Other = 277 (8.7%) | Upper Secondary School = 1319 Lower Secondary school = 589 Primary = 984 Pre-school = 293 | Yes = 1450 (45.5%) No = 1735 (54.5%) | North = 36.9% Centre = 20.6% South = 32.7% Islands = 9.8% |

Table 2 Characteristics of the respondents to the satisfaction questionnaire

A total of 1068 participants answered the follow-up questionnaire (see Table 3). The sample consisted largely of teachers, a small proportion of school leaders and the remainder of students and others.

| Gender | Age | Role |
|-----------------------|----------------------|----------------------------|
| Female = 938 (86.82%) | 18–25 = 5 (0.46%) | School leader = 55 (5.14%) |
| Male = 125 (11.70%) | 26–30 = 5 (0.46%) | Teacher = 982 (91.94%) |
| Others = 5 (0.46%) | 31–35 = 17 (1.59%) | Student = 7 (0.65%) |
| | 36–40 = 42 (3.93%) | Other = 24 (2.24%) |
| | 41–45 = 129 (12.07%) | |
| | 46–50 = 199 (18.63%) | |
| | 51–55 = 254 (23.78%) | |
| | 56–60 = 264 (24.71%) | |
| | 61–65 = 134 (12.54%) | |
| | 66–70 = 17 (1.59%) | |
| | 71–75 = 2 = (0.18%) | |

Table 3 Characteristics of the respondents to the follow-up questionnaire.

Results

RQ1. Degree of satisfaction in relation to the training usefulness during the webinar cycle

The participants' response to the satisfaction questionnaire (no. 3185 responses) was very positive with respect to the training usefulness of the individual webinars they had attended. Of the participants responding to the question “Please rate the quality of the meeting in relation to your expectations”, 46.9% rated it as “Excellent”, 47.6% as “Good”, and only 5.1% as “Sufficient” and 0.4% as “Poor”.

The feedback provided by participants who completed the satisfaction questionnaire (no. 3185) regarding the training usefulness of the overall webinar initiative was also very positive. Of the participants who answered the question “Express a judgement on the webinar series' usefulness with respect to your professional interests” a 49.2% considered it “Excellent”, 46% “Good”, only 4.5% as “Sufficient” and 0.2% as “Poor”.

RQ2. What kind of needs did emerge during the proposed webinar cycle in terms of training, upgrading and professional development?

With regard to the thematic in-depth studies requested by the participants during the webinar series, the data collected through the satisfaction questionnaires, subsequently analysed and categorised, highlight a need for further exploration of practical aspects in the implementation of innovative methodologies from Distance learning and Integrated digital learning perspectives, focusing in particular on the first level of education (primary and lower secondary schools) and on inclusion. An initial categorisation of the answers provided by the participants made it possible to identify “Distance learning and Integrated digital learning “ (92%) as the most requested topic for further investigation, followed by “Assessment methods” (73.8%); other topics indicated by the participants are “Inclusion” (20%), “Media education” (10.7%), “ICT” (15.3%); Childhood” (12.3%), “PCTOs” (9.2%) and “Innovative teaching practices” (12.3%), in particular, “Debate” (10.7%), while the 43% of the respondents do not specify any topic.

Following the first analysis and categorisation of the results, a further grouping of the requested topics has been made in view of the drafting of the follow-up questionnaire (see Table 1 above). The response of the participants who completed the follow-up questionnaire (no. 1068) to the question “Which of the following topics do you think were most useful?” is

summarised in Chart 1 and is broken down as follows: 234 (7.2%) participants considered the topic of “Rethinking the curriculum and the educational offer” as the most useful to explore; 738 (22.8%) participants, on the other hand, answered “ Didactic planning, innovative strategies and methodologies “; 432 (13.3%) respondents considered “Redesigning educational spaces and learning environments” as the most significant topic to be dealt with; 231 (7.1%) participants answered “Design and management of distance learning”; 297 (9.2%) respondents instead opted for “Design and management of integrated digital education”; 161 (5%) participants expressed their preference for the theme of 'Pathways for transversal skills and orientation'; 299 (9.2%) participants answered 'Media education, digital skills and digital learning contents'; 220 (6.8%) identified “Equity, diversity, inclusion and didactic differentiation” as the most important topics for in-depth study; 319 (9.9%) instead responded “Competency-based teaching/learning “; and finally 307 (9.5%) respondents considered “Rethinking testing and assessment methods” as the most significant topic.

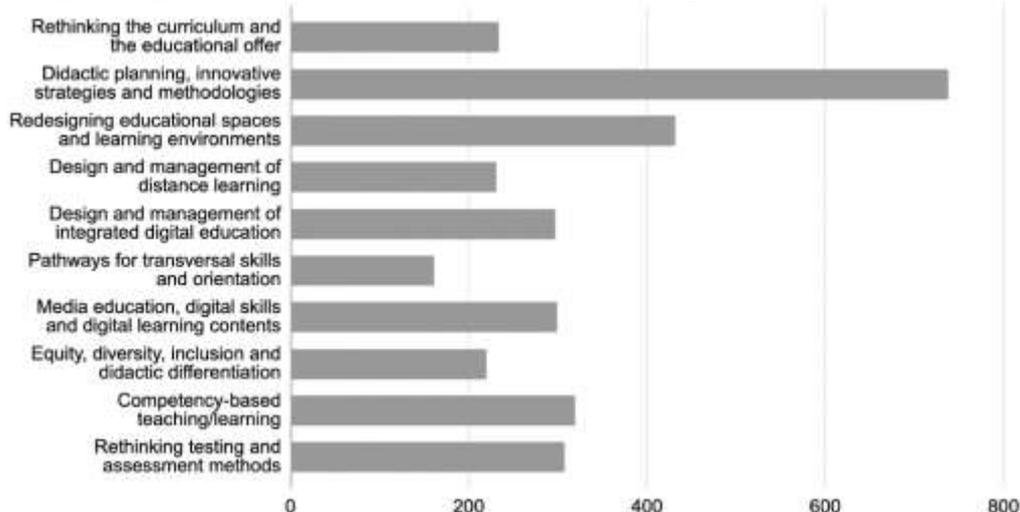


Chart 1 Most useful topics according to the participants' responses

RQ3. What was the degree of satisfaction in relation to the training usefulness at the end of the webinar cycle?

Responses (n. 1068) to the question “How do you judge the usefulness of the proposed initiative with respect to the following aspects” in the follow-up questionnaire are overall very positive. In relation to the webinar series' usefulness in terms of “Training opportunities in the use of new teaching methods” 30.2% of the participants answered “Excellent”, 21.8% “Fair”, 40.5% “Good”, 7.2% “Sufficient” and only 2 participants (0.2%) “Insufficient”. On the other hand, in relation to the initiative's usefulness as an “Opportunity to fill the gaps in technological skills”, 20.4% of the respondents considered it “Excellent”, 24.4% “Fair”, 41.9% “Good”, 12% “Sufficient” and only 13 participants (1.2%) considered it “Insufficient”. The participants were then asked to express their opinion about the webinar series' usefulness “to integrate tools and teaching methods for distance learning” and for this item too the response was very positive with 21.4% of the participants answering “Excellent”, 24.3% “Fair”, 41.9% “Good”, 11.2% “Sufficient” and only 12 participants (1.1%) “Insufficient”. The next item was aimed at probing the usefulness of the proposed webinars as a “Training opportunity on the use of new assessment methods “ and the feedback was again more than positive with 20.8% of the

participants considering it as an “Excellent” opportunity”, 27.6% as “Fair”, 37.2% as “Good”, 12.5% as “Sufficient” and 20 participants (1.9%) as “Insufficient”. The usefulness of the initiative as an “Opportunity to deepen relations between schools, their territory and the world of work” was then investigated, and the assessment on this item was slightly different from the previous ones, with the 18.5% answering “Excellent”, 23.6% “Fair”, 37.7% “Good”, 17% “Sufficient” and 33 participants (3.1%) “Insufficient”. Finally, the participants were asked about the webinars’ training usefulness as a means for “Updating with respect to new ways of managing the classroom and educational relations online and remotely” and 24.4% answered “Excellent”, 24.3% “Fair”, 37.7% “Good”, 11.5% “Sufficient”, while only 14 participants (1.3%) considered the initiative “Insufficient” with respect to this last item. The data are summarised in Chart 2.

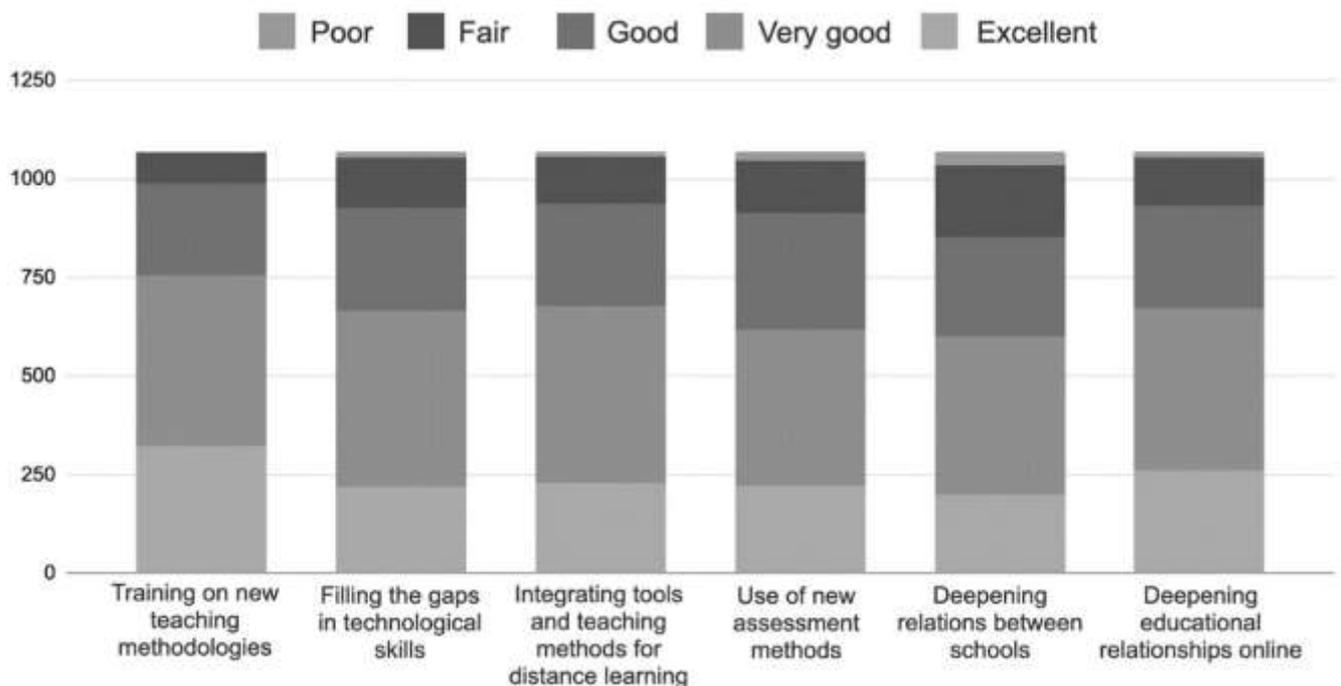


Chart 2 Usefulness of the initiative with respect to various factors

In the framework of RQ3, further aspects of the initiative’s achievements were investigated from the participants’ emotional and relational points of view, as summarised in Chart 3. To the question “Which of the following elements of the proposed initiative do you think were the most important?” 599 participants (22.9%) answered “The exchange of good practices among peers”, 590 participants (28.8%) identified “Coaching and professional development supported by a research community” as the most important element, 355 participants (17.3%) answered “The support in facing the challenges posed by distance learning”, 306 participants (14.9%), on the other hand, opted for “Feeling like a member of a community and diminishing the sense of distance and isolation”, while 183 (9%) indicated “Sharing issues triggered by the pandemic” and only 14 participants (0.7%) did not consider any of the above elements as important.

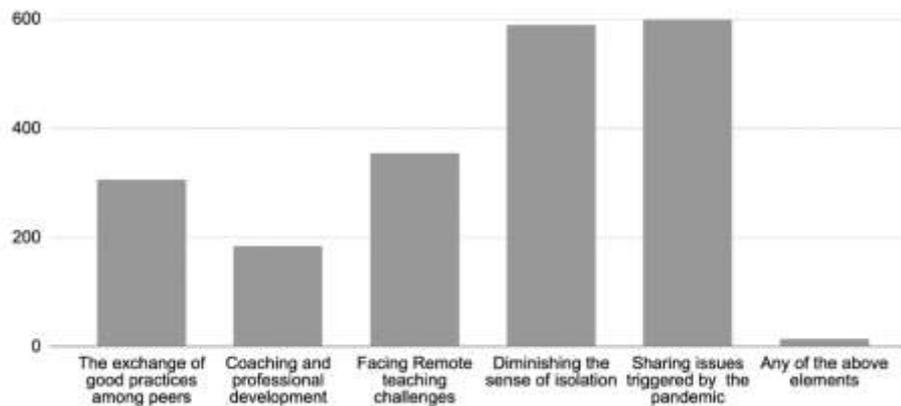


Chart 3 The initiative's most important achievements from a relational point of view

RQ4. What was the participants' feedback at the end of the webinar cycle in relation to their professional development?

The feedback from participants who filled in the follow-up questionnaire (no. 1068) to the question "To what extent do you think the proposed content contributed to your professional development?" was very comforting. Most of the respondents thought that the proposed training contents contributed "A lot" (31%) and "Quite a lot" (64%) to their professional development, while 6% answered "A little" and only 2 participants (0.1%) thought that the webinars did not contribute to their professional development.

With regard to the feedback on the initiative's usefulness for professional development, the participants were then asked: "Did the initiative prompt new collaborations with your peers, with schools, organisations or associations that have expanded beyond your participation in the webinar series?" and the results are very encouraging, since 523 participants (49%) stated that they had established informal/individual collaborations with other participants in the initiative, 106 participants (9.9%) answered that some agreements between schools were concluded, in the form of collaboration agreements, memoranda of understanding or twinning, networks, while 439 participants (41.1%) had not yet initiated either informal or formal collaborations at the time of filling in the questionnaire.

Discussion

The restrictions due to the Covid-19 emergency led to significant changes in the management of educational practices, both in terms of the organisational and educational dimensions. At the organisational level, two main situations have emerged: on the one hand, services have been formally interrupted while, on the other, they have been reshaped to provide remote assistance. Where the activities of schools and educational services have not been interrupted, they have been redefined and adapted, even with the support of digital technology, in order to enable educators, teachers and other actors of the educating community to maintain and cultivate the educational relationship with their beneficiaries, while mitigating the sense of abandonment and social isolation. These 'community technologies' (Rivoltella, 2017) have in fact allowed the community to be connected and sustained at a time of professional disorientation, guaranteeing peer-to-peer comparison and the sharing of good practices of 'resilience' to the critical issues posed by the pandemic.

With the transition to online teaching, educators and teachers have developed new learning needs and several initiatives have been organised to provide the tools to cope

adequately with the transition to distance learning. In addition to professional training organised by schools for their staff, many institutions provided informal learning opportunities, mainly through the provision of free webinars for professional development and coaching. Voluntary participation in these type of initiatives can be regarded as a self-directed learning strategy, that has made it possible to reduce the skills gap perceived by the educational community. The interactive and relocated mode of online meetings also allowed to enhance peer-learning and tutoring, giving rise to small and large 'professional learning communities' (Vescio et al., 2008).

This study has investigated the emerging training needs that prompted a group of participants to attend an online initiative for the development of educational professionalism. The investigation of learning needs was followed by an analysis of the initiative's usefulness in relation to the coaching and professional development of the attendees.

The results show a high level of satisfaction with the proposed training offer but also some thematic subject areas that certainly need further investigation. Contrary to what might have been expected, providing support with respect to the new distance learning methods is no longer a priority compared to other topics addressed during the meetings, such as, for example, didactic planning, redesigning educational environments and integrated digital didactics. These data show, first of all, a degree of professional maturity achieved in the two years of the pandemic by the respondents who are now largely projected towards integrated didactic modalities beyond mere distance teaching. Secondly, it can be claimed that the participants perceive these types of initiatives as tools for continuous professional development (Poce et al., 2021) and thus as the acquisition of expertise which is functional to educational work even after the health emergency. As evidence of this claim, the respondents identify the accompaniment and professional development and the sharing of good practices among peers as the most valuable elements of the initiative.

In terms of the training usefulness perceived by the respondents, among the various topics proposed, the one gaining the greatest interest is certainly the in-depth study of innovative teaching methodologies. Considering that more than half of the participants, at the time the webinars were held, had not yet joined the AE network, this type of feedback is comforting not only with respect to the path taken with the training initiative, but also with respect to the broader objectives that have animated the Movement since its inception and that have always recognized the centrality of methodological innovation in the school model (Nardi & D'Anna, 2018).

Some of the themes proposed obtained slightly lower results, such as, for example, exploring the relationship among schools, their territory, the world of work and the pathways for transversal skills and orientation. These results could be explained by the specificity of the target audience, consisting of Secondary Schools only, together with the particular training needs that arose in response to the pandemic period.

The value of the proposed training offer in view of professional development is also confirmed by the high networking rate promoted by the initiative. In fact, a large share of participants declares to have established both informal and formal collaborations following their participation in the webinar series. From this point of view, the peer-tutoring model adopted for delivering the contents seems to be a path to be followed and strengthened also in the future.

Conclusion

As shown by the survey analysed in this paper, in addition to the need for ongoing support for professional development, the will is revealed, already put into action in many schools, to use networking and peer collaboration as a tool for training accompaniment and effective educational planning.

Oriented towards massive open education (Pilli & Admiraal 2016), the initiative *Formarsi e confrontarsi con le Avanguardie educative* facilitated the sharing of professional development experiences that involve participants in the implementation of new teaching opportunities as well as of innovative solutions enabled by technology. With the guidance of INDIRE researchers and experts, teachers and school leaders of Italian schools shared their good practices, derived from concrete contexts and uses, offering their colleagues' practicable solutions so that each of them could, according to their own needs and specificities, continue their activities despite the closure of schools (Mangione et al., 2020).

Cooperative relations between different actors are facilitated by the fluid and non-hierarchical articulation of the AE network, whose flexibility and dynamism ease the resolution of common problems. The variety and complementarity represented in the network, which brings together schools throughout the country of all levels, grades and with various courses of study, increase the versatility of the shared strategic solutions while strengthening the ability of the actors to deal with the uncertainty and complexity of the challenges posed by contemporary society (Mughini, 2020).

The results of this study prompt further investigation into the dynamics of exchange and professional development mediated by webinar technology. Looking ahead, we hope to continue the work carried out so far by further enhancing the relational and peer-tutoring dimensions of the training model.

References

- Asquini, G. (2018). *La Ricerca-Formazione. Temi, esperienze, prospettive*. FrancoAngeli.
- Boud, D., Cohen, R., & Sampson, J. (1999). Peer learning and assessment. *Assessment and Evaluation in Higher Education*, 24(4), 413-426. <https://doi.org/10.1080/0260293990240405>
- Carretero Gomez, S., Napierala, J., Bessios, A., Mägi, E., Pugacewicz, A., Ranieri, M., Triquet, K., Lombaerts, K., Robledo Bottcher, N., Montanari, M., & Gonzalez Vazquez, I., (2021). What did we learn from schooling practices during the COVID-19 lockdown, EUR 30559 EN, Publications Office of the European Union, Luxembourg, 2021. <https://doi.org/10.2760/135208>
- Carrillo, C., & Flores, M. A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, 43(4), 466-487.
- Clarà, M., Kelly, N., Mauri, T., & Danaher, P. A. (2017). Can massive communities of teachers facilitate collaborative reflection? Fractal design as a possible answer. *Asia-Pacific Journal of Teacher Education*, 45(1), 86-98. <https://doi.org/10.1080/1359866X.2015.1095280>
- Clarà, M., Mauri, T., Colomina, R., & Javier, O. (2019). Supporting collaborative reflection in teacher education: A case study. *European Journal of Teacher Education*, 42(2), 1-17. <https://doi.org/10.1080/02619768.2019.1576626>
- Deming, W. E. (1986). *Out of the crisis*. MIT Press Cambridge.

- Ferri, P. (2021). La ‘scuola digitale’ è stata l’unica possibile durante l’emergenza: ora si tratta di ‘aumentare digitalmente’ la scuola italiana. *Italian Journal of Educational Technology*, 29(2): 42-53. <https://doi.org/10.17471/2499-4324/1205>
- Flores, M. A. (2020). Preparing teachers to teach in complex settings: opportunities for professional learning and development. *European Journal of Teacher Education*, 43(3), 297-300. <https://doi.org/10.1080/02619768.2020.1771895>
- Geeraerts, K., Tynjälä, P., Heikkinen, H. L., Markkanen, I., Pennanen, M., & Gijbels, D. (2015). Peer-group mentoring as a tool for teacher development. *European Journal of Teacher Education*, 38(3), 358-377. <https://doi.org/10.1080/02619768.2014.983068>
- Gegenfurtner, A., & Ebner, C. (2019). Webinars in higher education and professional training: A meta-analysis and systematic review of randomized controlled trials. *Educational Research Review*, 28, 100293. <https://doi.org/10.1016/j.edurev.2019.100293>
- Hattie, J. A. C. (2009). *Visible learning. A synthesis of over 800 meta analyses relating to achievement*. Routledge.
- Healy, S., Block, M., & Kelly, L. (2020). The Impact of Online Professional Development on Physical Educators’ Knowledge and Implementation of Peer Tutoring. *International Journal of Disability, Development and Education*, 67(4), 424-436. <https://doi.org/10.1080/1034912X.2019.1599099>
- Hord, S. M., & Summers, W. A. (2008). *Leading Professional Learning Communities Voices from Research and Practice*. Thousand Oaks.
- INDIRE. 2020. *Indagine tra i docenti italiani: pratiche didattiche durante il lockdown. Report Integrativo*. Florence: Italy.
- INDIRE. 2021. *Impatto della Pandemia sulle Pratiche Didattiche e Organizzative delle Scuole Italiane nell’Anno Scolastico 2020/21. Report preliminare-Dicembre 2021*. Florence: Italy.
- Kelly, N. (2019). Online networks in teacher education. In T. Allen (Ed.), *Oxford Research Encyclopedia of Education*. Oxford: Oxford University Press.
- Khanna A., & Thakarar G. (2021). Perception of the effectiveness of webinars on English language teachers in Western India. *Psychology and Education Journal*, 58(5), 1782-1788. <http://psychologyandeducation.net/pae/index.php/pae/article/view/5624>
- König, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, 43(4), 608-622. <https://doi.org/10.1080/02619768.2020.1809650>
- Laici, C., Mosa, E., Orlandini, L., & Panzavolta, S. (2015). «Avanguardie Educative»: A Cultural Movement for the Educational and Organizational Transformation of the Italian School. In Pixel International Conference, *The Future of Education*, International Conference, 5th Edition.
- Laici, C., & Orlandini, L. (2016). Avanguardie Educative: paths of innovation for schools. *Research on Education and Media*, 8(1), 53-61. doi: <https://doi.org/10.1515/rem-2016-0007>
- Magnoler, P. (2017). *Il tutor. Funzione, attività e competenza*. FrancoAngeli.
- Mangione, G. R., Mughini, E., Sagri, M. T., Rosetti, L., Storai, F., & Zuccaro, A. (2020). La rete come strategia di sistema nel supporto alla scuola italiana in epoca di pandemia: la buona pratica coordinata da INDIRE, *Lifelong Lifewide Learning*, 16(36), 58-75. <https://doi.org/10.19241/lll.v16i36.552>

- Mezirow, J. (2016). *La teoria dell'apprendimento trasformativo. Imparare a pensare come un adulto*. Raffaello Cortina.
- Mughini, E. (2020). Il Movimento delle Avanguardie Educative: un modello per la governance dell'innovazione della scuola, *IUL Research*, 1(1): 24-36. <https://doi.org/10.57568/iulres.v1i1.36>
- Murray, R., Caulier-Grice, J., & Mulga, G. (2010). *The open book of social innovation*. NESTA and The Young Foundation.
- Nardi, A., & D'Anna, G. (2018). *Avanguardie educative. Storia della ricerca in Movimento*. National Report INDIRE.
- Neumann K. L., & Smith M. D. (2020). Facilitating just-in-time professional development for inservice teachers transitioning to distance learning. In Ferdig R. E., Baumgartner E., Hartshorne R., Kaplan-Rakowski R., Mouza C. (Eds.), *Teaching, technology, and teacher education during the COVID-19 pandemic: Stories from the field* (pp. 527–530). Association for the Advancement of Computing in Education. <https://www.learntechlib.org/p/216903/>
- Nigris E., Balconi B., & Passalacqua F. (2020). Descrizione e apprendimenti professionali dell'esperienza scolastica a distanza. Il punto di vista degli insegnanti. *RicercaAzione*, 12(2): 73-99. <https://doi.org/10.32076/RA12209>
- OECD (2013). *Innovative Learning Environments, Educational Research and Innovation*. Paris: OECD Publishing. doi: <https://doi.org/10.1787/97892264203488-en>
- Pagani, V., & Passalacqua, F. (2020). Da un giorno all'altro abbiamo dovuto cambiare lavoro, L'esperienza della scuola a distanza dalla voce degli insegnanti. *RicercaAzione*, 12(2), 101-116. <http://doi.org/10.32076/RA12206>
- Paul, M. (2010). L'accompagnamento: una specifica postura professionale. In C. Biasin (Ed), *L'accompagnamento* (pp.145-159). FrancoAngeli.
- Perla, L., & Riva, M. G. (Eds). (2016). *L'agire educativo: manuale per educatori e operatori socio-assistenziali*. Editrice La Scuola.
- Pilli, O. & Admiraal, W. (2016). A Taxonomy of Massive Open Online Courses. *Contemporary Educational Technology*, 7(3), 223-240. <https://doi.org/10.30935/cedtech/6174>
- Poce, A., Amenduni, F., Re, M. R., De Medio, C., & Valente, M. (2021). Participants' expectations and learning needs in an online professional development initiative concerning Emergency Remote Education during the 2020 COVID-19 lockdown. *Italian Journal of Educational Technology*, 29(2), 99-116. <http://doi.org/10.17471/2499-4324/1197>
- Rhodes, C., & Beneicke, S. (2002). Coaching, mentoring and peer-networking: Challenges for the management of teacher professional development in schools. *Journal of in-service education*, 28(2), 297-310.
- Rivoltella, P. C. (2017). *Tecnologie di comunità*. Editrice Morcelliana.
- Safi, F., Wenzel, T., & Spalding, A. L. (2020). Remote Learning Community: Supporting Teacher Educators During Unprecedented Times. *Journal of Technology and Teacher Education*, 28(2): 211-222.
- Sanfelici, M., Gui, L. & Mordeglia, S. (Eds). (2020). *Il servizio sociale nell'emergenza COVID-19*. FrancoAngeli.
- Shin, J. K. & Borup, J. (2020). Global webinars for English teachers worldwide during a pandemic: “they came right when I needed them the most”. In R. E. Ferdig, E. Baumgartner,

- R. Hartshorne, R. Kaplan-Rakowski & C. Mouza (Eds), *Teaching, technology, and teacher education during the COVID-19 pandemic: stories from the field* (pp. 157-162). Association for the Advancement of Computing in Education.
- SIRD (2020). *Ricerca nazionale SIRD. Per un confronto sulle modalità di didattica a distanza adottate nelle scuole italiane nel periodo di emergenza COVID-19*. Italy.
- Sjoer, E., & Meirink, J. (2016). Understanding the complexity of teacher interaction in a teacher professional learning community. *European Journal of Teacher Education*, 39(1), 110-125. <https://doi.org/10.1080/02619768.2014.994058>
- Topping, K. J. (2005). Trends in Peer Learning. *Educational Psychologist*, 25(6), 631-45. <https://doi.org/10.1080/-01443410500345172>
- Toquero, C. M., & Talidong, K. J. (2020). Webinar technology: Developing teacher training programs for emergency remote teaching amid COVID-19. *Interdisciplinary Journal of Virtual Learning in Medical Sciences*, 11(3), 200-203. <https://doi.org/10.30476/IJVLMS.2020.86889.1044>
- Tramma, S. (2018). *L'educatore imperfetto. Senso e complessità del lavoro educativo*. Carocci.
- Trust, T. & Whalen, J. (2020). Should teachers be trained in emergency remote teaching? Lessons learned from the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 189-199. <https://learntechlib.org/primary/p/215995/>.
- UNESCO, & Università Cattolica del Sacro Cuore (2019). Ripensare l'educazione. Verso un bene comune Globale. Brescia, Italia: UNESCO. <https://unesdoc.unesco.org/%20ark:/48223/pf0000368124>
- UNESCO (2021). *Reimagining our futures together: A new social contract for education*. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000379707>
- Valera, A. & Solesin, L. (2019). *Indagine conoscitiva in materia di innovazione didattica*. Audition of Ashoka Italia ONLUS, october 16, 2019, Italian Parliament.
- Vescio, V., Ross, D. & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80-91. <https://doi.org/-10.1016/j.tate.2007.01.004>
- Wastiau, P., Blamire, R., Kearney, C., Quitre, V., Van de Gaer, E. & Monseur, C. (2013). The use of ICT in education: a survey of schools in Europe. *European Journal of Education*, 48(1), 11-27. <https://doi.org/10.1111/ejed.12020>
- Wenger, E. (2006). *Comunità di pratica. Apprendimento, significato e identità*. Raffaello Cortina.

TECHNICAL AND VOCATIONAL EDUCATION

1. 21ST CENTURY SKILLS IN TECHNICAL VOCATIONAL TEACHER EDUCATION

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The paper has been proofread by an English native-speaking professional.
<https://www.anchorenglish.com>

Abstract

Background and aim

Due to society's increasing complexity and the changing nature of work, essential aspects of technical vocational education and training (TVET) are the specific requirements of the vocation and what is referred to as 21st-century skills. Even though the concept of 21st-century skills is wide-ranging and vague, there seems to be agreement on the importance of competence and life skills such as critical thinking, problem-solving, creativity, self-directed learning, metacognition, collaboration, communication, and perseverance. This paper aims to contribute knowledge about the requirements for education to provide 21st-century skills and how technical vocational teacher education (TVTE) prepares TVTE students to ensure they meet these requirements.

Methods

The first part of the study entailed qualitative interviews with ten vocational teachers participating in the vocational education programme for information technology and media production (ITMP) in upper secondary schools in Norway. The second part was an analysis of the programme description for the bachelor programme for TVTE. During the analysis, we constructed categories based on the interviews and literature on 21st-century skills.

Results

The teachers provided concrete descriptions of several 21st-century skills of importance for their students. They connected the skills to the qualification requirements in the information technology and media production enterprises. While the teachers' approach was practical and concrete, the formulations in the programme description for the bachelor programme were limited and open to interpretation.

Conclusion

The results suggest a gap between the theoretical approach of the curriculum and the practical needs and understandings of the teachers, indicating there is room for improvement in aligning the two.

Keywords: *Technical vocational teacher education, Technical vocational education, and training, 21st-century skills, transitional coherence*

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Introduction

The education system must prepare young people to face complex challenges and current and future uncertainty due to society's increasing complexity and the changing nature of work (OECD, 2018). Moreover, future workplaces require competence in solving complex problems due to unknown, uncertain, and constantly changing competence requirements (Harteis, 2018; Schwendimann et al., 2018). Thus, essential aspects of technical vocational education and training (TVET) are the specific requirements of the vocation and what is referred to as 21st-century skills (Hämäläinen et al., 2018).

Several frameworks describe 21st-century skills, and the concept is wide-ranging and vague (Lamb et al., 2017). Thus, several terms, such as 'soft skills', 'transferable skills', 'transversal skills', and 'key competencies' are also commonly used (p. 11). However, there seems to be a common agreement about the importance of competence and life skills such as critical thinking, problem-solving, creativity, self-directed learning, metacognition, collaboration, communication, and perseverance to succeed in today's world. The importance of such competence is further reflected in the description of the overall values and principles in the new core curriculum for Norwegian primary and secondary education from 2020 (Norwegian Directorate for Education and Training, n.d.). Life skills such as critical thinking and ethical awareness, learning to learn, social learning and development, among others, are included in the curriculum. Even if it can be argued that critical thinking and problem-solving have always been essential for learning and that communication and collaboration have always been important in human society, there seems to be agreement about these skills' new importance in the 21st century (González-Salamanca et al., 2020).

Acknowledging that 21st-century skills are essential, some researchers are critical of the approach because competence is not sufficiently defined and related to a specific context (Mulder, 2012). Deichmann-Sørensen (2015) points out that as a consequence of the strong focus on generic skills, adaptability may become more important than vocational expertise. Studies conducted in the Norwegian TVET suggest that 21st-century skills such as collaboration and communication are contextual and directly linked to specific vocational assignments (Hiim, 2013; Aakernes, 2020). This indicates that 21st-century skills in TVET must be integrated into comprehensive, authentic vocational assignments and studied within various vocational contexts.

It is acknowledged that TVET teachers play a central role in effective learning in vocational schools and in preparing for the changing skills needs in the labour market (OECD, 2021). Despite their centrality, TVET teachers are largely absent from research on teacher qualifications and preparation (OECD, 2021; Orr, 2019). Thus, there is a need for research on how TVET teachers in various vocational fields experience the qualification needs and how technical vocational teacher education (TVTE) in different countries prepares for these needs. This article aims to contribute to a knowledge base on how TVTE can develop to meet the needs in the school-based part of TVET, educating for the constantly changing competence

requirements in the world of work. Drawing on the concept of coherence (Heggen et al., 2015), we address the following research question:

What is the relationship between the experience of professional requirements for educating for 21st-century skills by TVET teachers in Norway and the learning outcome descriptions in the programme plan for the bachelor programme for TVTE?

An essential aspect of TVTE is establishing the conditions for a successful transition to professional teacher practice, which is defined as *transitional coherence* (Heggen et al., 2015). Thus, there should be a meaningful relationship between the competence developed during teacher education and the work the teachers are expected to carry out in the schools. Therefore, it is crucial for TVTE to adapt to the changing requirements in working life and vocational schools.

Our data sources are twofold, as little is known about the requirements for teaching 21st-century skills in vocational schools. The first part of the study is a qualitative interview study investigating the requirements for teacher expertise in the technical vocational programme for information technology and media production (ITMP) in upper secondary school in Norway. The two years of school-based education is preparation for a further two years of apprenticeship in training establishments within five recognised trades, leading to vocational certification as 1) IT Operations Technician, working in the operation of IT systems. 2) IT Developer, working in coding and programming and developing IT systems. 3) Content Producer, working in designing digital content such as still images, live images, and audio recordings. 4) Media Designer, working in graphic design for print and digital devices. 5) Media Technician, working in film and TV production and technical equipment at conferences and cultural events (Norwegian Directorate for Education and Training, 2020). ITMP prepares for a developing society and jobs with constantly changing competence requirements where innovation and 21st-century skills such as critical thinking and problem-solving are central. Therefore, it is particularly interesting to investigate which 21st-century skills the teachers understand as necessary for their students to develop.

The second part of the study is a document analysis of the programme description for the bachelor programme for TVTE teachers. The content in the bachelor programme consists of pedagogy and vocational didactics (60 ECTS), in-depth vocational knowledge (60 ECTS), and knowledge of the breadth of vocations in the vocational area (60 ECTS). During their education, TVTE students undertake teaching practice in schools and vocational practice in enterprises in the vocational field. To be enrolled in the programme, they must have a trade certificate and at least two years of work experience from trades relevant to the vocations in the program.

Methods

Qualitative interviews were conducted with ten vocational teachers in ITMP during the spring of 2023. The participants were chosen randomly from a list of participants at a forum for teachers in the education programme. We designed a thematic interview guide for the qualitative interviews informed by research literature on 21st-century skills. Thus, the interview guide contained themes such as what competence the teachers saw as important in this field of work and how they could facilitate their students' competence development. The

themes in the interview guide were predetermined, while the order and formulation of the questions occurred in interaction with the interviewees (Patton, 2015).

All interviews were digitally recorded and transcribed verbatim. The first cycle of coding was *inductive* (Merriam & Tisdell, 2016), developing codes during the reading and interpretation of the data using NVivo software. The next step was to search for patterns in the coded material, develop themes based on the literature on 21st-century skills, and interpret and sort the initial codes into themes (Braun & Clarke, 2006). Finally, we constructed four categories that shed light on the TVET teachers' experience of professional requirements for educating for 21st-century skills. These categories were: 1) Collaboration and teamwork, 2) Problem-solving and critical thinking, 3) Self-directed continuous learning, 4) Perseverance. As the group of participants was relatively homogenous and the themes in the interview guide were limited, saturation was reached after ten interviews (Hennink & Kaiser, 2022).

The next step was to thoroughly read the programme description for the bachelor programme for TVTE, searching for learning outcome descriptions that could be connected to central 21st-century skills. The relevant text extract was coded according to the themes we developed while analysing the interview data. No new themes were developed during this process.

The study has been approved by the Norwegian Agency for Shared Services in Education and Research, and their guidelines regarding matters such as consent, confidentiality, information provided to the participants, and use of data are followed. The participants actively gave consent to participate. In the presentation of the interview results, we have emphasised ensuring the anonymity of the participants. We have also focused on presenting quotes that are not taken out of context and that we believe represent the participants' opinions. Furthermore, we have emphasised that the views of all interview participants are included in the results chapter.

To ensure the study's trustworthiness, we have emphasised consistency so that the results and conclusions correspond with the empirical data. The literature on 21st-century skills and previous research has guided the interpretation. However, we have emphasised presenting quotations and text extracts to show that the interpretation is based on the empirical data. We have tried to ensure the study's relevance through methodological thoroughness and by connecting the study to the literature on 21st-century skills and previous research in the field. In that way, the study can be theoretically generalisable (Eisenhart, 2009).

Results

In the results chapter, we first present the analysis of the TVET teachers' experiences and then the analysis of learning outcome descriptions in the programme plan for the bachelor programme for TVTE. The similarities and differences will be discussed in the discussion chapter. All the interviews were conducted in Norwegian, and the programme description is written in Norwegian. We have only translated the text extract presented in this paper into English. The respondents are referred to as R1–R10.

TVET teachers' experiences

The results are presented according to the four main categories constructed during the analysis.

Collaboration and teamwork

The category covers working effectively with others and communicating well. The teachers regarded interpersonal skills such as being able and willing to collaborate as being crucial for participating in working life. R6 put it this way:

“I mean, I always feel like collaboration is the most important. Learning a technical skill is nice, but in all jobs you're going into, you must collaborate with people, talk to them, respect them, listen, and be present. So that's why I think the ability to collaborate is the most important.”

It was also emphasised that collaboration and good communication are linked to responsibility and respecting other people's time. R8 described it this way: “Students must learn to respect other people's time. They must be able to give straight answers and have good communication with us teachers, and with supervisors in workplace practice.” The teachers also defined collaboration as social competence, which involves self-regulation, for which the following quote from R10 is descriptive: “Social competence is being able to collaborate with others even if they're not your best friends.”

The teachers also provided several examples of structuring vocational education around collaborative learning and teamwork. R3 stated that teamwork is closely linked to an overall focus on project-based assignments in the education programme. Project-based assignments imply student groups working together during the entire process, for example, developing a web solution. R1 stated that the students learn from each other during such a collaborative process. Collaboration and teamwork also include mutual support, which R9 described as “taking turns, assisting their mates”, leading to a collaborative climate in class.

Problem-solving and critical thinking

The category covers the capacity to analyse and find solutions to complex problems. The teachers regarded problem-solving and critical thinking as closely connected to independence and autonomy, which they believed would be essential in the students' future working lives. R2 described it this way “The goal is to develop independent individuals who can find solutions on their own.” The teachers described the importance of guidance instead of giving answers. The following quote from R5 is descriptive of this approach: “When students ask for help with something, instead of showing them how to do it, we can ask them questions, so they understand what they need to do to figure it out.”

Furthermore, the teachers understand problem-solving as related to patience and trial and failure. R2 said: “We want them to be patient and to struggle and wrestle with things themselves”, and further: “It's clear that no one learns anything without making mistakes, so we want them to make mistakes in the learning process and understand what they are doing wrong.” Moreover, the results indicate that problem-solving and critical thinking are interconnected with self-knowledge, as expressed by R10: “They need to become solution-oriented and have problem-solving skills. They must know what their competence is and what their limitations are.”

The teachers often referred to the qualification expectations from the enterprises during the interviews. Thus, some of them connected problem-solving to understanding future co-workers' different competencies and finding out who to ask when you are stuck with an assignment. R8 said that in working life, problem-solving means “to know who to ask, and to dare to call on another department”. Furthermore, the teachers referred to the internet as an essential source for finding solutions and stated that the students must learn “how to Google” (R5). Moreover, several of the teachers said that problem-solving involved finding solutions

through a combination of using the internet and helping each other, and the quote from R9 is an example of this understanding: “In everything we do, we emphasise that they must solve the tasks themselves. They must find solutions through the internet and with the help of each other.” Hence, the results indicate that problem-solving and critical thinking must be seen in conjunction with collaboration and communication skills.

Self-directed, continuous learning

The category covers the willingness to learn new systems and technologies. The teachers elaborated on the importance of self-directed, continuous learning in the vocations the education programme ITMP prepares for. R4 characterised the working life this way: “We experience that everything develops fast. Therefore, the students must be competent at familiarising themselves with new technology and must learn new systems.” Thus, the results indicate that self-directed, continuous learning can be understood as developing skills for lifelong learning, and involves the concept of *learning to learn*, though none of the teachers used those expressions.

However, the teachers said that even if, for example, the software continually changes, there is essential basic competence in the vocations. Hence, the results indicate that continuous learning is about recontextualisation of knowledge, as is described in this quote from R10:

“We expose students to various technologies and equipment. We go through maybe 12 or even more different types of software in a year. With this frequent exposure, students must be able to familiarise themselves with new tools quickly. In this way, they need to be able to see that this tool is similar to one I have used before. Then they can intuitively think about how things should work in this software.”

The teachers regarded the internet as an essential resource for self-directed learning, as expressed by R3: “They may have to familiarise themselves with new things very often through tutorials because the learning of the future partly relies on tutorials.” Thus, the results indicate that self-directed, continuous learning is interconnected with problem-solving. Furthermore, the teachers expressed the importance of students’ “ability, energy, and willingness to learn new systems continuously” (R3). Also, regarding self-directed, continuous learning, the teachers referred to the expectations from the enterprises, as expressed by R1: “Interest and willingness to learn is emphasised as especially important.”

Perseverance

The category covers patience and the ability to engage in assignments over time. The following quote from R9 is characteristic of how the teachers understood perseverance: “That they don't give up. That they are willing to try once more and yet again. They must persevere and experience that nothing is impossible but something that takes a bit longer.” The teachers connected perseverance to the qualification requirements within media production and IT enterprises, and R4 described the conditions in working life this way:

“Sitting down, working on a project over time, really delving deep into it, is a competence that will become scarce. You can take Chat-GPT as an example. It's so easy to say, write this for me, and you get, for instance, a code. It's a great tool, and learning how to use it and make the most of it is important. But I think the ability to work on things over time is important in the digital working life.”

The teachers also associated perseverance with working systematically, which is essential for meeting deadlines. R6 stated: “It’s about systematic planning, being organised, and having structure in work towards deadlines.”

To sum up, the results from the interviews with the teachers showed that the teachers usually spoke of the different 21st-century skills as interconnected. They regarded project-based education arranged as authentic vocational assignments as crucial for developing students’ 21st-century skills. These skills are related in complex ways and sometimes overlap one another. Hence, it is difficult to establish a clear distinction between them. Furthermore, the teachers related 21st-century skills to specific vocational contexts.

The programme description for the bachelor programme for TVTE

The formulations in the programme description are general and vague and must be interpreted in relationship to 21st-century skills. Thus, we did not find it convenient to organise the excerpt from the programme description in accordance with the categories used for the teacher interviews. In the following section, we present the formulations that we interpreted as aligning most closely with the descriptions of 21st-century skills.

The phrase “have knowledge of the working and societal life, the vocations, and the trades in the education programme” on page 130 can be linked to the requirements for 21st-century skills in the workplace and society. The excerpt from page 134, “can facilitate and lead learning in schools and the workplace, based on the qualification requirements of the vocations, current curricula, and governance documents”, can also be related to 21st-century skills. The quote implies that TVTE students should connect the qualification requirements in the vocations with the formulations in governance documents and curricula describing the TVET students’ learning outcomes. Furthermore, phrases such as “students should be able to analyse and meet the future needs of the workplace” on pages 144, 145, and 148 can be linked to 21st-century skills. However, general competence, soft skills, or similar terms are not used in the programme plan.

Thoroughly reading the programme description, we only found four formulations that can be directly related to 21st-century skills as described in the teacher interviews. The first formulation is on page 7: “Vocational teacher candidates shall contribute to educating independent and adaptable skilled workers.” This formulation can be connected to the categories *problem-solving and critical thinking* and *self-directed, continuous learning*. The following formulation is on page 9, where the expression *critical thinking* is used. “They shall contribute to students developing critical thinking and ethical awareness related to technology and media and how these influence society.” This formulation is directly related to the qualification requirements of the professions the educational programme prepares for.

The two formulations “can facilitate effective collaboration and group processes” and “facilitate constructive and inclusive learning environments” on pages 133 and 137 are connected to *the category collaboration and teamwork*. The teachers understood collaboration and group processes to be closely linked to an overall focus on project-based assignments in the education programme. We did not find this link expressed in the programme description.

In summary, the formulations related to 21st-century skills in the programme description are limited and vague. As the formulations are open to various interpretations, it is difficult to know how much emphasis is placed on 21st-century skills in TVTE.

Discussion and implications

The results suggest that the TVET teachers understand 21st-century skills as strongly tied to the specific vocations in the education programme. Even if the teachers refer to generic skills such as cooperation and self-directed, continuous learning, they elaborate on the particular requirements for 21st-century skills related to the qualification demands in the vocations in the education programme. Furthermore, as digital skills are among the essential hard skills in this education programme, the teachers did not refer to digital skills as 21st-century skills, as is

done in other contexts. Thus, the study indicates that 21st-century skills must be contextualised, defined, and related to a specific context, as Mulder (2012) argues. The results correspond with the findings from previous studies in TVET, suggesting that 21st-century skills such as collaboration and communication are contextual and directly linked to specific vocational assignments (Hiim, 2013; Aakerne, 2020). Furthermore, the study suggests that it is difficult to define a particular framework for 21st-century skills applicable to education on all levels and vocations, and that different skills are interconnected. Therefore, the framework should instead be open to interpretations in various contexts, understanding 21st-century skills as a comprehensive skill set.

The research question guiding the study was: What is the relationship between the experience of professional requirements for educating for 21st-century skills by TVET teachers in Norway and the learning outcome descriptions in the programme plan for the bachelor programme for TVTE? The study suggests that while the teachers' perspective was concrete and practical, the approach in the programme plan is vague and open to interpretation. Furthermore, the results indicate that an essential vocational teacher competence is to facilitate learning 21st-century skills in specific work-related situations during the school-based part of the education. This perspective is vaguely formulated in the programme plan.

The results suggest a potential gap between the theoretical approach in the programme plan and the practical needs and understandings of the teachers. Thus, the study indicates that there might be a weak transitional coherence (Heggen et al., 2015) between teacher education and the work the teachers are expected to carry out in the schools. Furthermore, there is room for improvement in aligning the two. The study points to the importance of strong programme coherence (Heggen et al., 2015) in teacher education in the form of a focus on meaningful connections between the different learning arenas in the education. The TVTE students' experiences of teaching and vocational practice regarding 21st-century skills could be used to concretise the concept of 21st-century skills in education on campus.

However, as the formulations in the programme plan are vague, it is difficult to know what has been in focus during the teacher education on campus. A limitation of this study is that we do not have data, in the form of interview data with TVTE students and university teachers, that sheds light on how education is carried out. This limitation also points to interesting possibilities for follow-up studies in this field of teacher education. The results from this study can be used as inspiration for similar studies on various aspects of technical vocational education and teacher education in different European countries.

References

- Aakernes, N. (2020). *Yrkeskompetanse i spenningsfeltet mellom tradisjon og kontinuerlig endring (Vocational competence in interplay between tradition and continuous change)* [Doctoral thesis, OsloMet – storbyuniversitetet].
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Deichmann-Sørensen, T. (2015). «Lik kvalitet» – fra yrkesstyring til ytrestyring, fra praksisfellesskap til fellesmarked ["Equal quality" – from occupational control to external control, from professional community to common market.]. In O. Eikeland, H. Hiim, & E. Schwencke (Eds.), *Yrkespedagogiske perspektiver* (pp. 219–270). Gyldendal akademisk.
- Eisenhart, M. (2009). Generalization from qualitative inquiry. In K. Ercikan & W.-M. Roth (Eds.), *Generalizing from educational research. Beyond qualitative and quantitative polarization* (pp. 51–66). Routledge.
- González-Salamanca, J. C., Agudelo, O. L., & Salinas, J. (2020). Key Competences, Education for Sustainable Development and Strategies for the Development of 21st Century Skills. A Systematic Literature Review. *Sustainability*, 12(24), 1–17. <https://doi.org/10.3390/su122410366>
- Hämäläinen, R., Lanz, M., & Koskinen, K. T. (2018). Collaborative Systems and Environments for Future Working Life: Towards the Integration of Workers, Systems and Manufacturing Environments. In C. Harteis (Ed.), *The Impact of Digitalization in the Workplace: An Educational View* (pp. 25–38). Springer. https://doi.org/10.1007/978-3-319-63257-5_3
- Harteis, C. (2018). Machines, Change and Work: An Educational View on the Digitalization of Work. In C. Harteis (Ed.), *The Impact of Digitalization in the Workplace: An Educational View* (pp. 1–10). Springer. https://doi.org/10.1007/978-3-319-63257-5_1
- Heggen, K., Smeby, J.-C., & Vågan, A. (2015). Coherence: A longitudinal approach. In J.-C. Smeby & M. Suttpen (Eds.), *From Vocational to Professional Education* (pp. 70–88). Routledge.
- Hennink, M., & Kaiser, B. N. (2022). Sample sizes for saturation in qualitative research: A systematic review of empirical tests. *Social Science & Medicine*, 292, 114523. <https://doi.org/10.1016/j.socscimed.2021.114523>
- Hiim, H. (2013). *Praksisbasert yrkesutdanning* [Practice based vocational education]. Gyldendal akademisk.
- Lamb, S., Doecke, E., & Maire, Q. (2017). *Key Skills for the 21st Century: an evidence-based review*. State of New South Wales (Department of Education). <https://vuir.vu.edu.au/35865/1/Key-Skills-for-the-21st-Century-Analytical-Report.pdf>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative Research: A Guide to Design and Implementation* (4 ed.). Jossey-Bass.
- Mulder, M. (2012). Competence-based Education and Training. *The Journal of Agricultural Education and Extension*, 18(3), 305-314. <https://doi.org/10.1080/1389224X.2012.670048>

- Norwegian Directorate for Education and Training. (2020). *Curriculum for vg1 information technology and media production (IKM0101)*. Retrieved from <https://www.udir.no/lk20/ikm01-01?lang=eng>
- Norwegian Directorate for Education and Training. (n.d.). *Core curriculum – values and principles for primary and secondary education*. <https://www.udir.no/lk20/overordnet-del/?lang=eng>
- OECD. (2018). *Education 2030*. OECD Publishing. [https://www.oecd.org/education/2030-project/contact/E2030%20Position%20Paper%20\(05.04.2018\).pdf](https://www.oecd.org/education/2030-project/contact/E2030%20Position%20Paper%20(05.04.2018).pdf)
- OECD. (2021). *Teachers and Leaders in Vocational Education and Training*. OECD Publishing. <https://doi.org/10.1787/59d4fbb1-en>
- Orr, K. (2019). VET Teachers and Trainers. In D. Guile & L. Unwin (Eds.), *The Wiley Handbook of Vocational Education and Training* (pp. 329–348). John Wiley & Sons, Incorporated. <https://doi.org/10.1002/9781119098713>
- Schwendimann, B. A., De Wever, B., Hämäläinen, R., & Cattaneo, A. A. P. (2018). The State-of-the-Art of Collaborative Technologies for Initial Vocational Education: A Systematic Literature Review. *International Journal for Research in Vocational Education and Training*, 5(1), 19–41. <https://doi.org/10.13152/IJRVET.5.1.2>