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Theoretical Basis of Individual (Home) Education in Slovakia, the Czech Republic and Poland

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Abstract: *This paper addresses the issue of individual (home)¹ education in Slovakia, the Czech Republic and Poland. It compares the education systems of the countries with a similar tradition of the education system - Slovakia, the Czech Republic and Poland, from the point of view of the legislative options for providing homeschooling to children. The study describes the theoretical basis of homeschooling and the opinions of professionals on the studied issue. It defines the basic concepts associated with homeschooling and, through a document review and interviews with professionals, compares the homeschooling system in these countries. It is possible to state that the conditions for the provision of individual (home) education in Slovakia, the Czech Republic and Poland are similar. It differs mainly in the age category of learners, the requirements for guarantor with qualification for (primary) teaching, and the recommendation from pedagogical and psychological counseling.*

Keywords: *individual education, home education, homeschooling, Slovakia, the Czech Republic, Poland.*

Introduction

The origins of homeschooling go back to the United States, in the 1970s and 1980s. The stimulus was a growing dissatisfaction with the classical public education system. Significant figures, who have changed the view of homeschooling, include John Holt, Raymond Moore, Mary Griffith, and others. Homeschooling has gradually become rooted in the legislation of European countries, where the concept of *compulsory school attendance* is gradually being replaced by the concept of *compulsory education*, on the grounds that education is acquired not only at school, but also outside of the school. In countries where the concept of a compulsory education is rooted in law, this education does not have to be implemented only within a school. In all European countries, except Germany, individual education in the home (or other conditions) is legal, at least for children of a certain age group.

¹ In the study the terms individual education, home education and homeschooling are used as synonyms. The term individual education is recognized by law in Slovakia and the Czech Republic. The term home education is recognized by law in Poland.

On the other hand, the educational system is traditionally strongly influenced by political system of the country and by its prevailing culture. Therefore, the educational systems of Slovakia, the Czech Republic and Poland (as well as many other post-communist countries) still have some specific features that distinguish them in a number of ways from the countries of “Old Europe” (Kostelecká, 2010). These features also reflect the individual (home) education. The aim of the study is to describe the theoretical basis of homeschooling and describe the legislative anchoring of homeschooling in Slovakia, the Czech Republic and Poland.

Research Problem and Research Questions

The research problem for the authors of this study has become a description of theoretical basis of homeschooling, and comparison of the legislative options for providing individual (home) education in Slovakia, the Czech Republic and Poland.

Research Questions:

1. What are the origins of homeschooling?
2. What were the opinions of professionals engaged in homeschooling (from both history and presence) on the studied issue?
3. What terms related to homeschooling have been used in Slovakia, the Czech Republic and Poland?
4. What is the legislative anchoring of homeschooling in the individual countries?
5. How is the compliance of the standards set by the curricular documents ensured?

The authors of the research have counted on the fact that, in the course of the research survey in each country, additional issues will arise in relation to the topic.

The Theoretical Basis of Homeschooling

Parents decide on the homeschooling of their children for a number of reasons, whether to achieve better educational results for their children, a negative perception of the traditional school environment, to provide better conditions for the children's moral and ethical development, a disagreement with the curriculum or teaching methodology, a disagreement with the school's value orientation, religious reasons, and so on. Homeschooling is also preferred by the parents of children, who live in remote rural settlements, or who have temporarily relocated abroad.

When putting together this chapter, in particular we studied the work of J. Kotásek, J. J. Rousseau, J. Holt, A. S. Neill, I. Illich, P. Gray and others. These works are similar in many aspects, while we also suggest implicit contradictions.

Development Scenarios of the Education System by Jiří Kotásek

According to the topic elaborated in this study, it is possible to quote from a study by J. Kotásek (1928 - 2006) on the international dimension of the research of present-day Czech schools, which he published in 2002. The study includes a reflection on the likely future development of education in an international context, in other words, an interpretation of the future development scenarios of an education system and of alternative models of schools. In the following text, we present concepts and six basic scenarios of education system development, published by J. Kotásek (2002), based on theoretical and research studies (e.g. Hutmacher, 2001, Johansson, 2000, Kotásek, Svoboda, 2000, Michel, 2001).

Strategic considerations in the field of educational policy for the next 15-20 years have already been published in 2002, so today they can be compared with the current development and direction of the education system. Three concepts about the future of the education system have six scenarios:

- A. **A continuation of the current state (extrapolation).** According to the first concept, existing models will continue to be applied and the current state of the education system will be projected into the future, thus maintaining the traditional model of the school and the school system against the forces that cause its decomposition. From this concept, the following scenarios stem:
 1. *The maintaining of bureaucratically managed school systems.*
 2. *An extended application of the market model within education.*
- B. **A strengthening of the school functions (re-schooling).** The second concept is to strengthen the function of the school as an irreplaceable social institution. The scenarios are as follows:
 3. *Schools as organisations focusing on managed learning.*
 4. *Schools as the main centres of social life within communities*
- C. **A weakening of the functions of schools (de-schooling).** The third is the weakening of school functions, even their decline as a consequence of the development of civilization, new communication mechanisms and the overall social and cultural crisis of the global world. With regards to the focus of this study, we further characterise the last two scenarios:
 5. *The networks of learners within the context of society's network (learning network model).* If the school does not get

rid of its bureaucratic nature, there may be an increase in the dissatisfaction with its traditional form. *The pressure of social groups requiring a limitation of learning through school is gradually increasing, even up to its total abolition, in favour of individual inclusion into learning networks.* Therefore, learning will not be done at a spatial and time-bound location, by trained teachers, and there will also be a decline in the traditional curricular structures and an increase in the plurality of values, as a result of a strengthening of the impact of interest and religious groups. Facilities providing childcare, as well as information, counselling and marketing services in the field of education, will be brought to attention. The education software market will develop, and networks of learners, parents and educators will be formed. The distinction between teachers and learners, and the parents and teachers, will gradually disappear. There will be a new type of educational professionals, who will work as out-patient workers, expert advisers and contact persons.²

6. *The decline of the education system, as a result of a disinterest in the teaching profession (school crisis model).* In such a development, it would not be possible to strengthen the role of the education system, or to maintain the status quo, there would be a complete crisis in the teaching profession. The lack of teachers would cause a reaction by various organisational measures, e.g. by increasing the number of learners in classes, and returning to traditional methods or to homeschooling. There will also be more intensive use of information and communication technologies. There will be a strong interest in the private initiatives of companies. The likelihood of an international teacher market will increase. The tendency to maintain an older generation of teachers in education will enhance, possibly the demands for preparatory teacher education will decrease, or the need to be educated as a teacher will disappear, and thus further weakening the status of the teacher. There will be attempts to increase teachers' salaries, but on the other hand, their working conditions will deteriorate.

² This scenario is the most common vision of education futurologists. Let us argue that it is quite close to the present reality, when homeschooling begins to grow through parents, and the idea of an individualisation of learning and lifelong learning is being fulfilled.

An interest in unqualified people willing to take care of children will materialise (Kotásek 2002).

Since the publication of this study, the time has already elapsed when one of the scenarios is supposed to have been fulfilled, but we cannot really say unambiguously, which scenario will be fulfilled with certainty and explicitness. All the scenarios can be reflected into the school systems in our country and in the advanced countries of Europe and the world. The school system is still characterised by strong elements of bureaucracy and elements of uniformity; schools have to always deal with new challenges (especially as a result of the family crisis), but the financial and human resources are not improving. There are efforts to prolong school attendance and the prerequisite of entrance into a job, or a certain type and level of school, is through the obtaining of a certificate.

On the other hand, as we have already outlined above, some visions of scenarios 5 and 6 are being fulfilled, especially those regarding an openness to homeschooling.

Negative Education by Jean Jacques Rousseau

The origins of homeschooling stem from a criticism of the classical school movement.³ Changes in the traditional understanding of the education system and pedagogy have taken place since *J. J. Rousseau* (1712 - 1778), as part of the reform of the pedagogical movement. Rousseau emphasised the education of a free man who, in the context of education as the development of his own personality, is not forced into anything, his individuality is being respected, puts his own experience before the knowledge gained by reading books, thus trying to highlight human nature. In the words of B. Pupala and O. Kaščák (2009) it is literally a non-education, where adults avoid any intentional action on the child, only leave him to develop in a natural environment, while it is assumed that the child is within himself a priori good.

Rousseau wrote his idea of an individual educational concept in his work, *Emil, or On Education*. He recommends to teachers and educators:

“Never give him any orders, whatever happens, do not give any orders. Do not allow him to think that you want to have some authority over him. Let him just know that he is weak, and you are strong, that in the light of his and your position, he is reliant on your grace and mercy ... “(Rousseau, 2002, p. 82).

³ The purpose of this study is not to expand or deepen these criticisms, nor to put homeschooling into opposition with a classical education system.

He adds that *“the most reliable means is a desire for education”* (Rousseau, 2002, p. 82). Therefore, it is much better to stimulate his curiosity, than force him to learn from books. He also does not recommend setting precisely what a child should learn.

The reactions to Rousseau's work are paradoxical. On the one hand, he is considered to be a representative of modern pedagogical thinking, and many pedagogues acknowledge his work, but many criticise him. We all mention, in particular, P. Gray, whose concept of education will be characterised in the context of this study, later on.

Gray finds fault with Rousseau, in particular, that he is manipulating the environment of his learner, in order to behave exactly how his teacher thinks is appropriate and good. The ratio of the number of students to the teacher is one-on-one, which could bring good educational results, however, he cannot be freely confronted with other children and is isolated from social influences for 15 years. Although Emil gets a sense of freedom, in fact, it is a manipulation by his teacher who, as the only one, determines the environment, people and objects that he comes into contact with (Gray, 2009). The only common idea shared by P. Gray (2009, 2016) with J. J. Rousseau (2002), is that *“Children’s play and exploration are key to their education”*.

Homeschooling by John Holt

Another important milestone in the development of homeschooling, was the publication of the books by the American pedagogue, **J. Holt** (1923-1985). For all his works, one can mention, for example, *How Children Fail* (1964), *How Children Learn* (1967), *Teach Your Own* (2003). Holt analyses specific situations from his pedagogical practice, arguing that the teaching organisation is responsible for the apparent failures of learners, rather than the learners themselves. He said about homeschooling:

“I would like to make it clear that I do not consider homeschooling as a response to bad schools. I think the home is a good base for exploring the world, which we call learning and education. Home would be the best foundation, no matter how good schools are. The correct relationship between home and the school is like the relationship between the library and the home, or the ice-skating rink and the home. It's an additional source” (Holt, 2003).

Holt believed that children who are surrounded by a diverse and stimulating environment will learn what they are prepared to learn at the time, when they are ready to learn it. He believed that there was no need to force children to learn - they naturally mature to it, if they are given the freedom to lead

themselves by their own interests and if they have a wide range of resources to learn from. He called this philosophy, unschooling.

Anti-authoritative Education by A. S. Neill

The Scottish pedagogue, **Alexander Sutherland Neill** (1883 - 1973), perceived education as the “self-regulation of a child”, and it is also referred to as “anti-authoritarian education”. This model does not turn against authority in general, but only against some degraded forms, like seniority of the adult and his insensitive interference into the development of the child; orders, instructions, regulations, prohibitions, sanctions, threats and uncritical subordination to these structures; prescribed teaching content, objectives, methods, place of learning and teaching aids; authoritative performance requirements of society, based on the principle of competition and the mutual competition of children (Štrynclová, 2003). External authority should be totally suppressed, in favour of the self-regulation of children. Children have the right to “live according to their own rules”, they have the right to “live their own lives”. The whole principle of Neill's philosophy is summed up by the quote:

“We must allow the child to allow for selfishness, freedom, not to share, and adolescence to follow his own childish interests. When the individual and social interests of the child meet, we should allow the personal ones to predominate. The whole Summerhill idea⁴ is based on liberation, allowing the child to fully experience his natural needs” (Neill, 2013, p. 76).

Neill considered the child's emotions to be the most important thing, which he has placed in front of intellectual progress. According to him, by ignoring children's emotions, schools make the children more incoherent to be manipulated through different media.

In accordance with J. J. Rousseau, A. S. Neill claims that “...books are the least important aid in school. The only things children really need to learn are reading, writing and counting; the rest should be just the tools, clay, sports, theatre, colours and freedom” (Neill, 2013, p. 144). Learning should come after play, while teachers should not even try “to wrap” learning into the form of play.

⁴ The principles were applied by A. S. Neill (2013) in his Summerhill School, which he founded in 1921, and works on the same principles, up until today. This is an international boarding school attended by hundreds of learners, of different nationalities, aged between 5 and 18. In particular, free play in age-related heterogeneous groups, the principle of democracy and freedom in education, non-compulsory school hours and children learning only what they are interested in, are all gaining in importance.

Free Learning by Peter Gray

There are free schools around the world (in the countries where the legislation allows them) that operate on similar principles to Summerhill. As an example, we can name Sudbury Valley School. The first one was founded in 1968 in Framingham, as the first school of this type. This is a democratic type of school, where students aged between 4 and 18 are fully responsible for their own education. Students decide how to use their time, do not have a predefined curriculum or a prescribed curriculum. Children learn exclusively using their own activities and their status is equivalent to adults. The school provides a safe environment where young people can play, explore, take responsibility and communicate freely with other people from different age groups.

Peter Gray (1946), in his book *Freedom to Learn* (2016), describes his experience gained during the long-term study of children's self-education, starting with the self-education of hunter-gatherers in primitive tribes, as well as the self-education of children at Sudbury Valley School, in Massachusetts. He claims that children from the culture of hunter-gatherers become successful adults without schooling. Children of hunter-gatherers must learn a lot of knowledge and skills to make themselves successful adults. Children get everything they need without systematically teaching them. Children are given a huge amount of time to play and explore. They watch adult activities and then integrate them into their games. There is a huge amount of child education going on, and this is analogously also happening to children in our culture, even before entering into school.

He gives examples, as in Sudbury Valley in Massachusetts, students become successful⁵ even without a traditional education.

P. Gray also described how the natural environment for children's self-education should look. In order for children to educate themselves, they need, in particular, the time and scope for playing and exploring, as well as access to educated and caring adults, and access to equipment (e.g. various devices, aids, didactic material). He also considered the free age mixing of children as key towards self-education. This coincides with the opinions of A. S. Neill, who also promoted free play within age-related heterogeneous groups.

⁵ Here, we have to ask ourselves, what does it mean "to be successful". This concept may be meaningless due to different pedagogical discourses. Taking into account the traditional academic discourse, this is especially the intellectual education of an individual, and "to be successful" could mean studying at a prestigious university. On the other hand, for example, from the point of view of humanistic discourse, the term "to be successful" could mean being happy, satisfied in life.

De-schooling of Society by Ivan Illich

Following the scenarios of the development of the education system, according to J. Kotásek (2002), we present the ideas of *Ivan Illich* (1926 - 2002), who published works in accordance with the last two of these aforementioned scenarios. As stated by J. Průcha (2009), “... *perhaps the greatest uproar among teachers, concerning the existence of the school, was awoken by the work of the American author, Ivan Illich*”. In 1971, he published the book, *Deschooling Society* (Illich, 1972), where he declared his conviction that the school should be separated from society. According to him, the school fulfils an indoctrination function, the learners cannot decide freely what and how to learn, hinders creativity, from the lowest grades, divides the learners into the successful and the unsuccessful, and is separated from life, etc., with its content (Illich, 1972; Průcha, 2009).

Illich also points out that the school cannot educate learners towards democratic values. He claims that the handling by the teacher of the learner does not contain any of the basic personal freedoms. The teacher unifies three power functions - judge, ideologist and doctor, which in his view contributes to the deformity of the learner, and “... much more than the laws that anchor his legal or economic immaturity or limit his freedom of assembly and residence” (Illich, 1972, p. 36).

Illich argues that instead of schools, there should be free education, i.e. everyone would learn what they want, how they want and when they want, so education would be a natural, spontaneous, totally voluntary activity, which stems from the interest of the child. He considers the school to even be counter-productive, while counter-productiveness, i.e., the “anti-sensual creation of values”, “...that the institution has, from a certain point in time, drawn apart most of its prospects from the target, for which it was established and financed” (Illich, 1972, p. 12). According to him, the school has an “anti-educating” effect on society.

Illich, in his book, *Deschooling Society*, suggests what a good education system should look like. It should primarily serve three purposes:

1. *“It should provide access to existing opportunities to all those, who want to learn at any time in their lives;*
2. *it should allow everyone, who wants to share their knowledge with others, to find those, who want to learn from them;*
3. *and finally, it should give all those, who want to present a problem to the public, the opportunity to present their case”* (Illich, 1972, p. 66).

Also, in a good education system, every citizen should have a constitutionally guaranteed right to such an education, he should not have to undergo a compulsory curriculum and would not be judged on whether he has a certificate

or diploma from some field. Modern technologies would be used to expand the freedom of speech, freedom of assembly, and free printing that would fully enter into education services (Illich, 1972, p. 66).

Definition of Basic Terms

As is evident, we are moving within the limits of *humanistic discourse*⁶. Its typical feature is the orientation towards individuality, on its development, more precisely on “self-development” and the “self-creation” of individuality. Self-development suggests education as a specific process, which should “let grow”. Education is, in particular, the organisation of a stimulating environment, in which individuality is created, which stimulates personal experience and offers an interesting experience (Kaščák, Pupala, 2009).

The most commonly used term in relation to individual education is *homeschooling*. The wider concept is *home education*, which can take various forms, as we will see in the text below. Some adherents of homeschooling are more familiar with the concept of *home learning*, meaning home-based learning. Because for some, the prefix *home-* appears to be restrictive, the term *world learning* is also used.

- *Individual education*. In Slovakia and the Czech Republic, the concept of individual education is rooted in legislation, where homeschooling is one of its forms. If a child is educated at home, he must be enrolled in a primary school, where he has to fulfil compulsory school attendance.
- *Home education*. The term *home education* (edukacja domowa) is used in Polish legislative documents. Home education is the education of children in domestic conditions, instead of formal education in schools. In developed countries, it is understood as an alternative to formal education, and it is provided either by the parents of the children or by tutors (DiStefano, Rudestam, Silverman, 2004). In the context of home education, the concept of *home school* is often used, but many parents

⁶ Pedagogical thinking (its main stream) is represented by the fact that, we almost simultaneously observe differentiated ideas about upbringing and education, which are sometimes referred to as the theories or concepts of education, or paradigms. Each of the relevant pedagogical discourses head towards other practical recommendations, formulate specific goals, and create a unique technology of educational training, including a variety of methodologies or exercises. In spite of their great auctorial, intellectual and conceptual dispersions, these concepts and ideas can be summed up on the basis of “common denominators” and create basic groups of streams: humanistic, functional, interactional, reconstructionist, consensual, neoliberal (Kaščák, Pupala, 2009).

reject it, as it applies to a school itself. A lesser used term is *family education*.

- *Unschooling*. In connection with the rejection of a formal school education, two streams can be distinguished. In the first case, it is about “homeschooling”, where education is supervised by correspondent or umbrella schools. In the latter case, it is the so-called “unschooling”. The child is educated outside of a traditional school, respecting the philosophy of the child's natural curiosity and his spontaneous learning without forcing. In this case, nobody organises the education of the child. The child himself chooses the subjects that interest him and studies them from different sources. Assistance is provided to him only if he asks for it himself.
- *Flexi-schooling*. As stated by J. Průcha (2009, p. 394), based on the assertion of R. Meighan (1993), “... a more realistic analogy of the ideas of “deschoolers” is the concept of flexi-schooling, a literally flexible schooling, lying between the well-defined poles of an institutional education and an informal (e.g. home) education”. According to him, the implementation of education is not bound to only one place (the school), but a variety of environments (e.g. museum, library, park, various workplaces), it uses a variety of resources available to the learner (TV, computer, etc.). As the learner learns and works extensively in the absence of a teacher, it is important for parents to actively engage in flexi-schooling. Flexi-schooling also includes “... different forms of distance learning, education in geographically remote areas (Scandinavia, Australia), education of the children of parents, who are long-term living abroad, but also attempts to introduce this concept into ordinary schools” (Průcha, 2009, p. 394).
- *Virtual school*. Children do not go to school physically, but they join the so-called virtual blackboard online, at the same time as a teacher, while interpreting the curriculum. All participants in such virtual learning see each other and communicate with each other. This way, for example, Moodle Internet School (i-moodle)⁷ in Březová, works.
- *Community education/community school*. Parents of children in homeschooling often have organised study groups, which are not officially recognised by schools. Every community school is unique due to something. Some schools strictly follow state curriculum, some are specifically targeted to develop religious values, environmental attitudes, or there are also communities that seek to apply the principles of unschooling.

⁷ <http://moodle.zsbrezova.eu/>

Methodology of Research

General Background of Research

This research is part of the larger project entitled “*Individual Education in the V4 Countries - A Comparative Research Study*”. In this larger research project, quantitative research methods (a structured interview) and qualitative research methods (an interview, a method of examining documents) were used to find out the conditions for homeschooling in V4 countries.

Instrument and Procedures

During the research, both the method of examining documents and the interview method were used. In our case, documents are understood to be legislative documents - acts on education, and relevant websites dedicated to homeschooling within the individual countries.

The process of document processing had the following phases (Mayring, 1990):

1. We began by defining the research questions.
2. We defined what will be considered as a document. We tried to find all relevant documents.
3. We have implemented a source criticism (an external and internal assessment of the documents). In this case, it was advantageous that they were state-approved legislative documents and websites managed by high-level institutions.
4. This was followed by an interpretation of the documents, focused on finding answers to the questions asked and processing the conclusions of the research.

Another research method used was an unstructured interview. We submitted the information we received to be critiqued and we have verified it in interviews with pedagogical professionals from the individual countries – Slovakia, the Czech Republic and Poland. Their task was to compare an interpretation of the document presented by us and review it with the source document, as well as with answers to the research questions.

Sample of Research

The research sample consisted of three main documents

1. Act No. 245/2008 Coll. on Upbringing and Education (The School Act) in Slovakia,

2. Act No. 561/2004 Coll., on Pre-school, Basic, Secondary, Tertiary Professional and Other Education (the Education Act), in the Czech Republic,
3. Act on Education System from 19th December 2016 (Ustawa z dnia 14 grudnia 2016 roku - Prawo oświatowe) in Poland.

In addition, we have also drawn information from websites about individual education within each of the countries:

1. Civic Associations of Homeschooling in Slovakia,⁸
2. Associations of Homeschooling in the Czech Republic,⁹
3. Home Education in Poland.¹⁰

The organisations that administer these websites and publish through them up-to-date information on homeschooling issues in the individual countries attest to the credibility of the presented websites. The documents analysed are publicly available, so it was not necessary to ensure any agreement with their analysing and interpretation.

The research sample was also composed of university teachers, from faculties operating in the areas of pedagogy and pre-school and elementary education from Slovakia (2), the Czech Republic (2), and Poland (2) engaged in individual (home) education. The respondents were selected from the selections available, as we were looking for respondents, who were willing to engage in the research. We realise that the available choice reduces the possibility of generalising results.

The respondents were instructed about the aim of the research and research questions, they voluntarily participated in the research, and they were promised to remain in anonymity.

Results of Research

The answers to the research questions related to legislative anchoring of individual (home) education are processed in Table 1.

Table 1. Legislative anchoring of home (individual) education in Slovakia, the Czech Republic and Poland (Mazur, Rochovská, Dolinská, 2019).

	Slovakia	The Czech Republic	Poland
What is the legislative	Permitted by law for a certain age	Permitted by law for a certain age	Permitted by law.

8 <http://www.domacaskola.sk/>

9 <http://www.domaciskola.cz/>

10 <http://edukacjadomowa.pl/>

anchoring of homeschooling in the individual countries?	category of learners.	category of learners.	
In which country was the homeschooling of learners first allowed by law, and which was the latest?	In 2008, i.e. the last of the countries examined.	In 2005.	In 1991, i.e. the first of the countries examined.
Is homeschooling for learners in these countries limited to a certain age group of learners?	For learners at the 1 st stage of primary school (ISCED 1).	For learners at the 1 st stage of primary school (ISCED 1) and, since 2016 also for learners at the 2 nd stage of primary school (ISCED 2).	For nursery school children (ISCED 0), learners at the 1 st stage (ISCED 1) and 2 nd stage (ISCED 2) of primary school, secondary school and grammar school students (ISCED 3).
How is it possible to apply for a learner's homeschooling?	The legal guardian requests the headmaster of the child's school for homeschooling.	The legal guardian requests the headmaster of the child's school for homeschooling.	The legal guardian requests the headmaster of the child's school for homeschooling.
Does a student have to have a guarantor with a pedagogical education?	Yes.	No, secondary education (in learners at the 1 st stage of primary school) or higher education (in learners at the 2 nd stage of primary school), is enough	The law does not prescribe a guarantor for a learner.
With which methods and	The law does not prescribe it.	The law does not prescribe it.	The law does not prescribe it.

forms is it legally possible to implement homeschooling for learners in the different countries?			
How is the fulfilment of the standards provided by curricular documents ensured?	The learner is examined every half year.	The learner is examined every half year.	The learner is examined once a year.

During the research, additional research questions arose, and the answers are given in Table 2.

Table 2. Responses to the additional research questions in the individual countries

	Slovakia	The Czech Republic	Poland
How can the homeschooling be cancelled?	At the request of the parents, or the headmaster cancels it if the learner does not attend the half-year examination, or fails to fulfil it, or at the request of an inspector.	At the request of the parents, or the headmaster cancels it if the learner does not attend the half-year examination, or fails to fulfil it, or if sufficient conditions for the education are not provided.	At the request of the parents or cancelled by the headmaster if the learner does not attend the annual examination or fails to fulfil it.
Is it possible to formally educate a learner with the application of the philosophy of	No.	No.	No.

unschooling?			
What other information about homeschooling is available on the websites^{8,9,10}?	Legislation, a list of schools with positive references to homeschooling, articles on homeschooling, information for parents, ideas for activities, information about conferences ...	Legislation, articles and professional studies on homeschooling, information for parents, communication of the homeschooling association with the current Minister of Education, ideas for activities, information about conferences ...	Legislation, articles and professional studies about homeschooling, information for parents, ideas for activities, information about conferences ...

In conclusion, we only briefly state that the respondents - professionals from the pedagogy, and pre-school and elementary education departments, have approved the presented content.

Discussion

Following the J. Kotásek study (2002), which is presented in the theoretical part of this study, it can be stated that social conditions, not only in Slovakia, the Czech Republic and Poland, require the adoption of a new educational paradigm, and that is the lifelong learning of all members of society throughout their lives. The author argues that this should happen not only at the level of formal education in schools, but also at an informal level (in enterprises, state and public administration, interest and civic associations) and informal education (spontaneously happening in work, public and private life).

Within the theoretical part of the study, in the intentions of humanistic discourse, we have quoted the opinions of experts in favour of homeschooling. We acknowledge that homeschooling also has opponents, for example, in Slovakia B. Pupala, O. Kaščák (2004), in the Czech Republic, S. Štech (2003), but they are experts whose opinions are in the context of other discourses, predominantly rivalling with a humanistic discourse.

Based on the presented theoretical origins of this study, we note that the authors cited, largely preferred free education and the philosophy of

unschooling. In Slovak, Czech and Polish terms, such forms of education are not allowed under the legislation in force. Learners are every half a year (in Slovakia and in the Czech Republic), or once a year (in Poland) undergoing an examination of how they fulfil the compulsory curriculum.

The authors of the study have experiences in the field that many parents are also experimenting with “unschooling”. However, if this way educated learners succeed in the half-year and end-of-year examinations at the school they are enrolled in, it is not a problem for any party involved. These parents and pedagogues admit that it is not possible to formulate any set of “best practices” for learning. Rather, they learn with their children, and they also consider it as a positive if they do not know how to explain something to the children immediately. Methods and ways of teaching are less important to them than the thoughts themselves. Once they find some interesting ideas they want to test, they use an unlimited number of methods for how to implement them.

Conclusions

As stated by J. Kotásek (2002), the pressure of social groups is likely to increase gradually, requiring a limitation of learning only through the school. For these reasons, the legislative documentation gradually adds to almost all European countries the possibility of homeschooling for children, at least for a certain age category. While in Slovakia it is possible for learners at the 1st stage (ISCED 1), in the Czech Republic, which approved homeschooling **three** years earlier than Slovakia, there is already undergoing experimental verification of the domestic education of learners at the 2nd stage of primary school (ISCED 2). In Poland, out of all three of the countries under examination, the option of the homeschooling of learners was first introduced into legislation, as early as 1991. Compared to Slovakia and the Czech Republic, homeschooling is currently allowed not only for primary school learners (ISCED 1), but also for children in nursery schools (ISCED 0) and learners at the 2nd stage of primary school (ISCED 2), as well as for secondary schools and grammar school students (ISCED 3).

The Slovak, Czech and Polish laws offer freedom in education, but at the same time they show the state’s desire to control this freedom as much as possible (Kašparová, 2015). In all countries, however, the State checks on the homeschooled learners through the schools where they are enrolled, whether they are fulfilling the obligatory curricula prescribed by the State. While in Slovakia and the Czech Republic it is twice a year, in Poland it is only once a year.

Coming from the theoretical part of this work, we can say that free schools like Sudbury Valley or Summerhill work efficiently around the world. In the

countries studied so far, schools that apply the philosophy of unschooling are not allowed, although many parents educating their children at home would welcome the possibility of enrolling children in such schools.

We propose that an experimental verification should be carried out, whether unschooling can be implemented under the conditions of the school system in Slovakia, the Czech Republic and Poland (as the educational tradition is different from the Western countries, in which unschooling has its own tradition). It is also our intention to enlarge this homeschooling research to other neighbouring European countries (e.g. Hungary, Ukraine, Austria, Romania).

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The use of digital teaching aids in primary education with emphasis on students from socially disadvantaged backgrounds

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Abstract: *Authors point to “potential educational inequalities generated by technological change” as factors limiting the rise of the information society (Arntz et al. 2016, p.25). Not only lack of access to digital technologies but also lack of positive attitudes towards the use of digital teaching aids can be identified as a risk factor of digital literacy development, particularly among students from socially disadvantaged backgrounds. (Livingston-Helsper 2007; Zevenbergen 2007; Czerniewicz - Brown 2013). The empirical findings of a slightly negative attitude towards the acquisition of digital skills as well as lack of access to Internet that remained at level 25% in 2018 to compare 26% in 2015 according to Velšic (M. Velšič, 2018) declare the persistence of digital divide in sociodemographic comparison in Slovakia. Based on the analysis of foreign and domestic studies (PIAAC, PISA ICILS) and empirical surveys in Slovakia, we monitor the persistence of the sociodemographic digital divide in Slovakia. Whereas the digital socialization takes place not only in nonformal and informal way but also within formal education system, we present findings of the use of digital teaching aids in formal education. Based on empirical findings on the sample of Slovak primary schools' teachers in towns Spišská Nová Ves, Nitra a Lučenec we followed a) the perception of digital pupil access by teachers, the ways of compensation for the lack of digital access of students in the school environment, b) examines the teachers' views on benefits and limits of using digital educational aids in schools with students from socially disadvantaged backgrounds a c) identifies ways of compensation for a insufficient digital access of students. According to teachers' statements, not only the lack or insufficient digital access but also the insufficient digital pedagogical ethos of students and parents (that covers the attitudes towards the use of digital teaching aids) can be classified as a barrier to the use of digital teaching aids. Introduction of free computer lessons in after school club in schools, the use of digital teaching aids in preparing for school at a school club, are perceived by teachers as a way of compensation for the lack of digital access for students from a socially disadvantaged environment.*

Key words: *Digital access, digital ethos, digital teaching aids, students from socially disadvantaged environment, digital divide.*

Introduction

The field of digital technology application in the socialization process has become a major subject of interest in the cultural theory of the information society (F. Webster, 2002) that follow the trends in sociodemographic digital divide, digital equity and in intergenerational reproduction of digital participation patterns. In the theory, the rise of a digital generation of students can be identified as one the indicators of information society development. Thus, digital socialization is examined in its sociodemographic and intergenerational context. Digital socialization take place both in formal and informal dimension. Students grow up surrounded by digital technology since birth and at the age of four years gaining first experience with activities in the digital space (Tuukkainen, Wilska, 2014). Different domestic and foreign studies focused on the different experiences and skills of students entering pre-primary and primary formal education system. According to several studies, there are significant differences in the level of digital skills, in the digital access and the use of digital skills in practice at the time of entry into primary education among students of families with different socio-economic status (Sackes, Trundle, Bell, 2012, M. Neumann, Fish et al, 2008, Livingston, Helsper, 2004, Czerniewicz, Brown, 2013). Differences in digital participation of students are already visible in pre-primary age students from a socially disadvantaged environment are identified as “digital aliens” who, unlike the so-called “digital elite” have limited access to digital technologies (especially the Internet) and their contact with digital technologies is more formal (Czerniewicz, Brown, 2013). In Slovakia, socialization into digital space has been a part of the formal socialization process since 2004 when digital classrooms were set up in Slovak schools. Besides informal digital socialization in the domestic environment, formal digital socialization within education system shape the rise and formation of digital generation of young people in Slovakia.

In the context of the EU's strategic objectives, the development of digital literacy is being analyzed not only in terms of increasing employability chances in the labor market but also in terms of promoting integration and citizenship. Fostering successful social integration of students from a socially disadvantaged environment by encouraging their successful socialization is a challenge also in Slovak conditions as the share of people with lower education than ISCED 3 can be identified as the persistent problem of the part of the population that is at the same time at greatest risk of poverty (Smarter, green, more inclusive - indicators to support the Europe 2020 Strategy, 2017). Young people with low levels of education are less often active citizens and less involved in adult education.

As shown by several qualitative studies in Slovakia, students from the socially disadvantaged environment, especially Roma students and students from socially excluded environments, represent a group that is currently still at risk of lacking digital access in the context of the use of digital technologies in the educational process (R. Medved'ová, 2016). The use of Internet as a learning aid at the lessons and for homework, however, is becoming a widespread activity of students in the digital space. The use of Internet use for learning can be identified as one of the activities that students perform most often in the digital space (M. Porubčinová, 2016). Similarly, the empirical data point to an increase in the assessment of the importance of using digital technologies in the teaching process in different age groups (M. Velšic, 2015). The analysis of the use of digital technologies has become a research challenge in view of the potential that digital technologies offer in the education process of different groups. Foreign and domestic studies provide findings on the specific benefits of digital teaching aids even in the context of educating students from a socially disadvantaged environment. In view of the persistence of digital divide in both intergenerational and socio-demographic comparisons, the attention must be paid to the conditions of digital access and the applicability of digital teaching aids in teaching students in socially disadvantaged environments. The task is urgent even in a view of the fact that the experts identify the persistent "inadequate, low level of education as a hindrance to Roma problem issues" (Klein, Rusnáková, Šilonová, 2012, p. 11). This paper follows findings in the area of digital access and use of digital teaching aids regarding students from socially disadvantaged backgrounds. Based on empirical findings on the sample of Slovak primary schools' teachers we examine a) teachers' perception of digital access of students, b) ways of compensation for the lack of digital access of students at schools and c) the teachers' views on benefits and limits of using digital teaching aids. Digital socialization of students from a socially disadvantaged environment is identified by on the level of intergenerational and sociodemographic reproduction of digital literacy, attitudes towards digital technologies and access to digital technologies based on empirical data of PIAAC, ICILS studies and representative empirical surveys in Slovakia.

Benefits of using digital learning aids for students from a socially disadvantaged background.

Considerable attention has been paid to the use of digital technologies in formal education system as for example the use of e-books and their contribution to the development of literacy skills and graphomotor skills (de Jong, Bus, 2002, s.145- 155, O. Korat, 2006, s.24-31, Segers, Verhoeven, 2005, pp. 17-27), analysis of portable touch media devices (tablets) (M. Neumann, 2011, p.109-122, K Goodwin, 2012, P. Saine, 2012, p.74-79), or different types

of iOS (i-operating systems) such as iPad, I Pods and Smartphones (Murray, Olcese, 2011, p.42-49). Digital technologies in the context of pedagogical activity refer to "a wide range of resources, tools, environments and computer practices that we use to support learning and learning, communication and collaboration, expression, creation, etc., that is to support all students's, students' and learners' of all ages development domains "(Kalaš et al., 2013, p. 14). The term digital teaching aids will be understood as teaching aids created by digital technologies (digital technical devices) such as e-books, educational applications designed for training and verifying the subject (digital educational games such as reader applications, mathematical applications, creative applications), digital presentations designed to present the curriculum. The function of digital technologies in teaching can be assigned not only in a field of technical devices but also in field of managing the teaching process and the regulation of learning itself (Kožuchová et al., 1998). The functions of digital teaching aids include "practice, presentation of the subject, stimulation, and use in didactic games" (J. Skalková, 2008, p. 254).

Empirical observations on the use of e-books in groups of students from families with different SES have confirmed by Korat and Shamir (2008) as the improvements in students' reading literacy achieved among students from families with different socio-economic status (SES). Although students from lower SES families were disadvantaged in important reading skills¹¹, the use of e-books within the framework has contributed to the noticeable improvement in this group. According to authors, "students from a disadvantaged environment were able to make considerable progress in reading skills after engaging in a brief but motivating activity by the educational e-book" (Korat, Shamir, 2008, p. 121). Findings on the benefits of using e-books in pre-primary and primary education similarly confirmed positive impacts of e-book use on the development of literacy in word development, text comprehension and word recognition (Segers, Verhoeven, 2005, O. Korat, 2006). Other studies have highlighted the elements that need to be considered when designing e-books for educational purposes, such as the use of icons the child can click and games available as part of eBooks that can act as distractors distracting the attention of students when reading e-book (Plowman, McCake, 2013, de Jong, Bus, 2002). According to the authors, the advantage of reading

¹¹ Based on the results of early childhood emergent literacy (word recognition, word recognition, digitization, word recognition), students from higher SES families have significantly higher scores in this area than students with lower SES families. According to Korat, Klein and Segai-Drori (2006), students from low SES families reached lower level of home literacy environment (HLE), identified by parenting readings for young students, the number of students's books in the home, parental knowledge of books.

e-book for a small child by adult is identified in higher possibility of adapting and creative responding of adult to impulses of child while reading which is not available when using e-book by child alone separately (Plowman, McCake, 2013, p. 29).

Though studies have confirmed the potential of appropriate e-books and other technologies such as touch mobile devices in using as additional devices to regular reading at home and at school environment, it should be stressed that "the potential of tablets to support the development of early reading literacy in young students is related to the quality of digital interaction" (M. Neumann, 2014, p.110). According to empirical findings among Australian pre-schoolers, the use of touch screen tablets was associated with emergent literacy skills (letter name and sound, numeral identification, print concepts and name writing), the correlation between the advances in the field and the time spent in the use of tablets in students has not been confirmed (M. Neumann, 2014, p.116). According to the author, the type and quality of applications and the attitudes of parents to use of tablets is significant as the use of desktop computers but not computer games may be related to the development of reading skills. The impacts of digital technology use in the learning process have also been explored in developing social competences in the field of cooperation when working with digital technologies in a classroom. Finally, specific contribution of digital technologies in the learning process can be recognized among students with learning difficulties, based on the findings of the impact of audio-visual training on improving phonological skills and recognizing written words in dyslexic students, similarly in the case of the use of mobile touch devices among students with disabilities who have limited capabilities to use classical tools in training the necessary graphics skills (Magnan, Ecalle, 2006).

Studies have confirmed the potential of suitable e-books and other technologies, such as touch-based mobile devices as additional devices alongside regular class reading at home and in the school environment (Plowman, Mc Cake, 2013). Besides e-book, digital education tools in the category of educational applications can include *literacy applications* combining letter, audio, written, pronunciation, *creative applications* that provide tools for painting, drawing, building, designing, puzzle, creating music, *mathematical applications* that include numerical identification, counting, time and spatial orientation, and other educational applications that include general educational activities to improve memory, language skills, and general knowledge (M. Neumann, 2014, p. 116).

The content of educational applications can be defined in the categories of "teaching educational technologies" (R. Means, 1994, p. 9), with the prevailing share of direct learning, lectures or work with textbooks. This way

of learning using digital educational applications lies predominantly in providing information, presentations and simulations and is intended for practical exercises when students answer questions. In addition to the teaching educational technologies, the author also distinguishes "exploratory learning technologies" when the user makes information decisions and technologies that are primarily not intended for use in schools but can be used for educational activities such as digital games. According to Murray and Olcese's content analysis of digital educational applications, most of the digital educational applications were found to be focused on an individual user base rather than on collaboration.

The applications analyzed by the authors were primarily focused on receiving content (text, audio, image information), but only to a lesser extent focused on creative content. There are also the examples of creative-oriented learning applications that include space-simulation, music applications, or maps-based mapping applications using the GPS system (Murray, Olcese, 2011, p. 47). However, as stated by the authors, "there are few examples of iPad applications that are truly innovative" (Murray, Olcese, 2011, p. 46), when many applications replicate existing content. The examples of interactive use of digital learning tools in Slovakia are presented f. e. in the field mathematics (H. Barániková, 2012), in teaching STEM experiments (Válková- Ožvoldová, 2006) or by the application of social networks in education (E. Poláková, 2012). Digital technologies allow to create a common set of knowledge for teachers (digital libraries, educational portals) (Bobot -Jakubeková- Rurák, 2012). The benefits of using i-OS educational digital applications are related to mostly to the operational and software capabilities, the possibility of replacing expensive textbooks and study materials, the ability to work in a multilingual environment or, in the case of music applications, the ability to work with a wide range of musical instruments. The specific benefit of using digital technologies is a possibility to share created works and store their cloud computing services.

However, regarding the future challenges in this area, the attention should be paid to the cooperation of IT professionals and education professionals in the development of digital educational applications of creative character (considering also educational needs of students from socially disadvantaged environment). There are several examples of innovative ways of the use of digital learning environments also in the context of Education 4.0 development (Richert, Shehadeh, Willicks and Jeshke, 2017, Quint, Sebastian, Gorecky, 2015).

Sociodemographic determination of digital literacy, digital ethos and digital access

The metaphor of “digital immigrants” and “digital natives” by Mark Prensky (M. Prensky, 2001) has expressed the original intergenerational distribution of digital literacy among the first members of the Internet generation and their parents at the turn of the millennium. This distribution has later been later widened by the concept of digital aliens and digital elite (Czerniewicz, Brown, 2013) based on the analysis of the differentiated use of digital technologies in schools as well as on the example of the different forms of digital habitus that students bring with them as soon as they enter school education¹².

The persistence of the reproduction of different patterns of digital habitus in the intergenerational comparison was confirmed by empirical findings from abroad, according to which socio-demographic factors in the form of socio-economic status of the family are significantly involved in the differentiation of digital literacy, ethos and access as students, who do not use the internet or are among poor internet users, were mostly students whose parents work manually (Livingston, Helsper, 2007). The importance of socio-demographic characteristics in digital access has been confirmed by the findings of Czerniewicz and Brown, (2013), according to which it is only a "digital elite" of young people who grow up with computers and get acquainted with them informally.

In the field of digital access in schools, it is possible to monitor the differentiated formation of digital habit of students with different sociodemographic status through indicators such as computer facilities in

¹² The concept of *digital habitus*, which reflects the social-demographic differences in digital competence and attitude within the older generation to a digital world, represents the theoretical basis of the analysis of digital participation of students in the context of inter-generational reproduction cultural models. The term is applied analogously to the kind of *technological habitus* in the context of the analysis of man's relationship to the technological environment. The analysis of the digital habitus involves the analysis of the actual level of digital competence (digital literacy), analogous to the area of symbolic cultural capital, b) the analysis of the digital ethos – analogous to the pedagogical ethos covering the attitudes, opinions and patterns of activity in digital space (that can be identified in areas such as the extent and forms of the digital participation in practice, parental mediation of the scope and forms of the digital participation of students or the perception of the positive and the risk aspects of the digital participation) and c) the area of digital entrance – analogous to the field of material (externalized) cultural capital following the entrance to the digital tools. The area of the patterns of activity and the attitudes of students and parents in the digital space which is referred to as the digital (attitudes to the digital participation) (Zevenbergen, 2007, Bourdieu-Passeron, 1990).

schools, classroom placement, number of students per computer, frequency of access and use of digital technologies by students at school. Similarly, it is possible to compare the focus of students's activities in the digital space (the area of digital ethos) (Judge, Puckett, Bell, 2006). According to the findings of the benefits, the limits and the extent of use of digital teaching aids, the socio-economic status of the family has a significant impact on the development of students's digital habitus already in pre-school age (Sackes, Trundle and Bell, 2011, Korat, Samir, 2008, Livingston, Helsper, 2007).

Similarly, compensating for some of the symptoms of disadvantage in forming a digital habitus of students who do not have access to digital technologies at home is relevant already in pre-school age (Zevenbergen 2007). The school environment has the potential to involve the use of digital technologies in education in a variety of forms (such as digital textbooks or exercise books) to compensate for inadequate access to digital technologies in the home environment. Regarding the development of multidimensional literacy (multiliteracy practices), in which literacy and digital technologies converge, the authors stress that “an adequate level of computers equipment in classrooms can help overcome the entry gap in the digital skills of students before entering school due to different SES of families (Sackes, Trundle and Bell, 2011, p. 1698).

Whereas cultural capital, pedagogical ethos and material cultural capital of students is discerned empirically in relation to SES of parents (Bourdieu, Passeron, 1990), it can be assumed that the digital literacy, digital ethos and digital access of students also are being formed in relation to the sociodemographic factors. In Slovakia, the impacts of the digital habitus as a mechanism of inter-generational reproduction of digital literacy was confirmed by the findings of an international study ICILS 2013, according to which students with a better quality of home backgrounds (with a higher level of education of parents, a higher status of working parents and a greater number of books in the home) achieve better results in computer and information literacy. Different forms of digital approach are evident when entering school in relation to sociodemographic factors. The influence of parental education on students' level of digital competence is also supported by the findings of the PIAAC study (2013) that focused on qualitative competencies assessment including digital competences and the ability to use them in practice. In the case of competence to use digital technologies to solve problems (solving problems in a technically advanced environment), only 0.6% of person tested in Slovakia, whose parents did not complete secondary education, achieved the 3rd (highest) rating and only 7% the second level of assessment of this ability. Studies of digital equality in the education system environment highlight the

proven differences in the practical use of digital technologies in the education system in schools with different socio-economic status (SES).

Challenges in the level of digital access as well as the digital ethos of students continue to persist evidenced by findings in differences of digital technology use in school by SES. According to the empirical findings, the digital activities in schools with a high share of students from the low-income families are more focused on practice than in schools with the prevalence of students with higher SES families using sophisticated and more complex applications (Fish et al, 2008, s. 101). According to Kusá et al. (2010), differences between schools in the emphasis on learning outcomes relate to the right of parents to choose a school in Slovakia, leading to a different concentration of students with different family backgrounds in particular schools.

Empirical findings of the use of digital technologies in the formal primary education system in Slovakia

In an international comparison, Slovakia belongs to the countries with one of the lowest capacities to compensate for disadvantages in education due to SES (PIAAC, 2013). However, even in Slovakia, authors emphasize the potential of the education system to compensate for inadequate home access to digital technologies in the pre-primary formal education. According to Burianová (2015), the use of digital technologies already in pre-primary education is supported by empirical findings on the sample of thirteen kindergartens in Trnava (Slovakia). These findings confirmed the interest of teachers to involve digital technology into the learning program as well as support of these plans by their parents. Within thirteen kindergartens in eleven nurseries regular and active use of digital technologies has been found, in two kindergartens digital technologies are used occasionally. The most commonly used technologies included a CD and MP3 player. Daily, computers, interactive tabs, educational software applications, cameras were used, much less microphones, phones and audio recording devices. Digital technologies were freely available to students in the playroom, in two cases nursery schools had special classrooms for digital technology. Except for one of the nursery schools, according to pedagogues, parents have a positive attitude towards the use of digital technologies in nursery schools, or they let the teachers to decide. According to a qualitative probe by Medved'ová (2016), conducted at a school located near the socially excluded Roma vicinity by interviews with pedagogues of the school, teachers have greatly appreciated the benefits of using digital technologies in teaching students in a socially disadvantaged environment. According to teachers, students read little in general, they do not listen to interpretation, so the use of digital technologies creates an experience,

visual environment, which, in view of the missing experiences students need. Regarding digital skills and digital access, kids are skilled, almost all have very good smartphones, tablets, students usually use phones, rarely computers in the home environment. Symptoms of the digital divide are noticeable in digital access in the Roma locality. Due to problematic Internet connection, it is difficult for students to do homework using internet. The best opportunity for students to access the Internet is a computer room in the school, open until 16:00, which students can visit daily.

According to experts, the specific benefits of digital educational applications can be recognized in using digital teaching aids as a complementary tool for practicing the curriculum. With a focus on students from a socially disadvantaged environment and on students with learning difficulties, digital technologies can successfully support effort, motivation and self-confidence (K. Cicko, 2010, pp. 151-155, R. Medved'ová, 2016, pp. 127-138). The use of digital teaching aids during lessons and also in a school club, acts as a positive motivation and an attractive reward for students, as well as an appropriate way to promote the interest, endurance and the effort of students to fulfill school tasks, to practice and consolidate curriculum. The school environment has the potential to involve the use of digital technologies in education in a variety of forms, such as digital textbooks, syllabuses, exercise books, and a way to compensate for inadequate access to digital technologies in the home environment.

The cooperation of teachers and IT specialists becomes an opportunity for the development of pedagogical aids (also) regarding the specific problematic areas of education in the monitored group of students. The cooperation of educators and IT specialists becomes an opportunity for the development of pedagogical aids (also) with regard to the specific problematic areas of education in the monitored group of students. In the case of first-year students who come from a socially disadvantaged environment, problematic areas of education include dynamic practice and phonemic awareness (32.2%), graphomotor (40.68%) and right-left orientation (45.76%), as well as communication, visual and auditory perceptions and mathematical abilities. The basic pedagogical objectives within the group's acceleration program include the development of the ability to communicate in the mother tongue, the development of self-presentation and self-confidence of students, the development of memory, basic thoughts (listening, speaking, own testimonies) (Klein, Rusnáková, Šilonová, 2012, p. 42).

Several quantitative examinations have been realized that bring findings even on digital access of students from socially disadvantaged environment (Kusá at al., 2010). Regarding the sociodemographic digital gap that can be identified in Slovakia (Veštic, 2015), we realized empirical survey

on a sample of primary school teachers to identify the digital access of students and to identify mechanisms of compensation for the possible insufficient digital access of students at school. We also were interested in experiences that teachers have with digital teaching aids at schools with students from socially disadvantaged environment¹³. We have set the research questions: a) What is the digital access of students from socially disadvantaged environment according to teachers' assessment, b) What options for compensating for the insufficient digital access can be identified at selected primary schools?

The empirical research was realized by online questionnaire survey on a sample of primary school teachers in Spišská Nová Ves, Nitra and Lučenec. We also realized telephone interviews with directors of selected schools.

Using online questionnaire surveys on a sample of 97 primary school teachers in Spišská Nová Ves, Lučenec and Nitra, we examined teachers' statements that characterize their experience with the use of digital teaching aids. The findings follow the experience of using digital teaching aids in schools with students from different social backgrounds¹⁴. According to teachers' answers to the question *"Please indicate whether there are, and if so,*

¹³ A socially disadvantaged environment that disadvantages a child in the education process is considered to be an environment characterized by at least three of the following criteria: 1. the family in which the child lives does not fulfill basic functions - socializing, emotional and economic, 2. poverty and material need family of the child, 3. at least one of the parents of the child is long-term unemployed, 4. insufficient education, at least one of the parents has not completed basic education, 5. the inadequate housing and hygienic conditions in which the child grows up - absence of a place for learning, beds, drinking water, WC, 6. language of the school is different from the language the child speaks in the home environment, 7. the child's family lives in a segregated community, 8. the social exclusion of the community or the family of a child from the majority society. Of the total number of 440,582 primary school students, 26,306 students are among the socially disadvantaged students.

¹⁴In Spišská Nová Ves, 605 students (12.4%) of 4862 students in 11 elementary schools belong to the group of socially disadvantaged students. In Nitra, 6686 students study at 19 elementary schools, of which 236 (3.52%) belong to the socially disadvantaged group. In Lučenec, 2812 students are studying at 9 schools, of which 72 are among socially disadvantaged students. We have included 1/3 primary schools in the sample. The questionnaire sent in electronic form was completed by 97 teachers of selected primary schools Ing. O. Kožucha 11 SNV, ZŠ Levočská 11 SNV, ZŠ Markušovská cesta 8 SNV, ZŠ Nad Medzou 1 SNV, ZŠ Benkova 34 Nitra, ZŠ Cabajská 2 Nitra, ZŠ Drážovská 6 Nitra, ZŠ Krčméryho 2 Nitra, ZŠ Škultétyho 1 Nitra, ZŠ Haličská cesta , Lučenec, ZŠ Nám. Kubinyi, Lučenec, Rúbanisko ZŠ, Lučenec, Vajanského Elementary School, Lučenec, Elementary School with MŠ Ulica bratrícka, Lučenec. We also included a primary school in Spišské Hrhové.

any difficulties in using digital teaching aids“, inadequate digital access can be considered as one of the most common barriers in using digital teaching aids. Restrictions on the use of digital devices related to digital access cited by teachers include, in particular, internet access at schools ("inadequate speed", "the internet is slow, weak", "few computers in classes", "old office“). Teachers point to the lack of digital access for students to the Internet as a barrier to the use of digital devices ("some students do not have Internet", "homework .. (using digital aids).. I give only those who have internet).

Teacher's recommendations for improving the use of digital teaching aids in schools can be divided into three areas:

(a) improving the quality of school equipment ("efficient internet", "free service", "affordability for all schools", "tablets for each pupil", "providing free educational programs")

(b) teachers training (" teachers training in the use of digital technology")

(c) improving the methodical training ("more online exercises available, more interactive chatting materials", "more accessible teaching lessons", "creating a digital version of a textbook with links to other Internet resources, for teachers)

Teachers' responses realistically included the statements that it is *"appropriate to use digital teaching aids with a measure"*, *"not to use digital devices at school to use the students separately"*, *"to rotate activities"*, and stressed the experience that *"digital lesson teaching can slide to distractors like music, YouTube, social networks "*.

Based on their experience, pedagogues have also highlighted the benefits of using digital teaching aids. These concerned in particular:

a) areas of time effectiveness of the preparation and work of teacher and pupil at the lesson ("time saving", "quick preparation", "quick feedback", "students proceed at their own pace", "quick processing of results")

b) in the area of availability of information sources ("easy access to information", "easy preparation of materials")

c) the lessons of learning (higher "attractiveness", "clarity", "exaggeration", "motivation of students", "increasing interest in learning")

d) development of cognitive abilities ("development of imagination", "development of creativity")

(e) support for the practice and consolidation of curriculum ("the possibility of drilling", "the consolidation of the curriculum")

Similarly, teachers have mentioned the benefit of compensating certain teaching aids by using digital learning aids, such as "the opportunity to present the attempts to which the school does not have the conditions", "a quick replacement of the tools that the school does not have".

Teachers have also introduced their experiences with the practical use of digital teaching aids. In practice, most widespread way of using digital

teaching aids include watching videos, movies and YouTube channel in class, reported by 65 teachers of up to 20% of lesson in a class per month, by 14 teachers in the range of 20-40% of the lesson per month, and by 10 teachers in the higher range.

Similarly, the use of digital presentations in classroom was reported by 34 teachers ranging from 20-40% of the lesson per month and by 27 teachers up to 20% of the lesson per month. These devices are not used by only 3 teachers, while 5 teachers do not use movies and videos in classroom. The search for information by students on the Internet is used by 38 teachers in the range of up to 20% and 26 teachers ranging from 20-40% of the lesson in a class per month, while 10 teachers do not use digital teaching at all. Although 20 teachers said they did not use online tests to practice curriculum, 43 teachers use online tests within a range of 20% of the lesson per month, 14 teachers in the range of 20-40% of lesson in class and 17 in the higher grade. The least used digital teaching aids in the classroom include the use of electronic books that are not used by 67 teachers, the use of online tests in the evaluation of the lesson (unused by 44 teachers), and the play of online learning games not used by 27 teachers. However, the use of digital educational games is a learning tool for 43 teachers, up to 20% of classes per month, while ten more teachers use this tool even more often.

We were wondering if educators are using and, if so, to what extent, different forms of digital teaching aids are part of the homework of students. Searching on the Internet is used as a part of homework for 47 teachers in the range of up to 20% of homework in one class within the subject per month and for 21 teachers in the range of 20-40% of homework in the classroom per month.

Only 10 teachers stated that they do not use Internet as a part of students' homework, 32% do not use digital presentations as part of students' homework, and 31 teachers do not use online practicing (tests, dictations on the Internet) as part of students' homework.

The use of e-books and online educational games has been the least used digital devices in homeworks according to teachers' estimates. However, 41 teachers reported watching online videos as part of students' homework up to 20% of homeworks per month, 35 teachers reported the use of digital educational games and 34 teachers use of practicing curriculum in the form of dictations and Internet to similar extent.

According to the findings of telephone interviews, the directors of the schools estimate the digital access of students differently - part of the elementary school directors in Spišská Nová Ves said they did not perceive digital access to students as a problem, even in the case of students from a socially disadvantaged environment. Director of a school with 406 students

and 49 of a socially disadvantaged environment, part of which comes from a segregated settlement : *"I was in the village, twice and wifi flicked everywhere .. TV and wifi that is what they have, even if they have nothing to eat ... they all have already"*. Differentiation between socially disadvantaged communities, especially Roma settlements in this area, is evidenced by the statements of other school representatives, according to the representative of the school in Spišské Hrhové, *"surely all students do not have Internet access at home"*. Similarly, differentiated views also appeared among representatives of the elementary schools in Nitra, where some school principals do not consider digital students' access to the problem and another part said some students do not have access to the Internet at home: *"some students do not have access to the computer, big differences ... there are also students of lonely mothers from the nearby Crisis Center, they do not have these options ... "* According to the headmaster of the next school: *"If they do not have the chance to do a computer job, we will give them an alternative and draw it"*.

What many school directors agree is the problem of the attitude towards the use of digital technologies as a learning aid (digital pedagogical ethos) that is associated with the pedagogical ethos as such: *"differences among are deepening, especially among uneducated parents"*. Another director remarked: *"they are no longer interested in computers, rather than mobile technologies ..."*. Digital pedagogical ethos of parents of students from a socially disadvantaged environment was expressed by the director of another school in Nitra using an example of parents' interest in information from the school and the way parents communicate with the school: *"they (parents, etc.) have mobile and Internet ... but rather interested facebook, others do not ... we communicate with them every day, we solve the problems of students, truancy only verbally "*.

Schools have several options to compensate for inadequate access to the Internet, as the choice of computer lessons that operate even in higher numbers due to students' interest (eg 2 at first and 2 at second level). According one of the school directors, computer lessons after school are often subsidized so membership is accessible to students and is of interest to them. The computer lessons after school in one of the schools were also accessible to parents.

In some smaller schools, computer lessons after school have not been set up. Other options include access to computer classes in the afternoon, Wifi available at school (morning until 7.30 am and afternoon from 1 pm to 5 pm), computer access at the school library. However, as it was said: *"students have access to computers in the computer room have, but what they do, whether or not there just to play, that's another thing ... "*.

Digital learning tools devices that are successfully used in one of the schools also include digital readers both in the library and in the classroom and laptops. According to directors, doing homework using the Internet is not perceived as a problem in most schools. In some schools, work with digital technologies takes place just before or just in the classroom and homework that includes access to Internet is being volunteered.

The objection of one of the directors aimed at moving the Informatics up to the third year of the original second, which slows down the development of fine motoring (work with the mouse ...) needed to work with the computer. School directors also stressed the importance of cooperation between the school and parents in the overall development of educational ethos students. The interest in digital technology alone may not be enough as a motivation for the use of digital technologies in a study, as the availability of other non - educational - digital applications can reduce the attractiveness of using digital teaching aids among students with undeveloped digital pedagogical ethos.

Conclusion

Digital teaching aids have become a part of the educational process. Its benefits as well as limits are intensively being analyzed in current studies. With regard to the persistence of the socio-demographic digital divide in Slovakia, we focused on benefits and barriers of using digital teaching aids with students and students from a socially disadvantaged environment. The aim of our contribution was to monitor the use of digital teaching aids in schools with students with different socio-economic backgrounds. Based on the empirical data obtained on the sample of primary school teachers and directors we bring findings on the differentiated perception of digital access for students at elementary schools as well as several mechanisms of compensation for the lack of digital access of students at home.

According to the part of directors, the insufficient digital access of students is a significant obstacle in the context of using digital learning aids especially as part of homework. Also, the underdeveloped digital ethos of students from a socially disadvantaged environment can be identified as a significant barrier of the use of digital learning aids.

According to the primary school teachers, the digital pedagogical ethos that reflects readiness to use digital teaching aids, is being linked to "lack of education of parents". According to teachers, the most frequent barriers to using digital teaching aids include the insufficient digital access at schools especially in the area of internet connection quality, as well as lack of digital access for students in the home environment. Teachers are also aware of other limits on the use of digital teaching aids that are not directly related to material

equipment as potential online distractors that can interfere in learning and preparing for school.

The positive benefits of using digital learning aids specifically for students from socially disadvantaged backgrounds according include the support of time effectiveness, interest, motivation, drifting, curriculum consolidation, corresponding to previous findings (R. Medved'ová, 2016, K. Cicko, 2010). Teachers' recommendations mainly concerned the improvement of material equipment in the area of digital access, the support of teacher training in the area and the creation of methodological materials for specific areas, such as consolidation and curriculum. The above findings can be supplemented by available expert findings, according to which it is necessary to "provide teachers with specific methodological support in a specific environment in schools with a higher number of students from socially disadvantaged backgrounds" (Klein, Rusnáková, Šilonová, 2012, p. 75).

There are several ways to compensate for inadequate digital access at schools, including the introduction of subsidized computer lessons in after school club. To support the use of digital learning aids in the learning and homework preparation, creation of an organized learning space within which students with limited digital access could use digital devices may be considered. Future challenges include also the call for collaboration between IT development professionals and pedagogical specialists in preparing digital educational applications with a creative character, as well as in the development of didactic tools with a special focus on students with specific learning needs. Efforts should be directed towards compensating for the underdevelopment of the digital access and digital ethos that support the integration of students in the information society as well as achieving digital equality (Judge, Puckett, Bell, 2006, pp. 97-113). The attitudes of educators that can penetrate the wider social environment are particularly important. In the context of the EU's strategic objectives, the development of digital literacy (as a component of basic literacy) should be seen not only in terms of increasing employment opportunities but also in the level of support for integration and citizenship, as young people with low levels of education are less often active citizens and less participate in adult education.. Thus, support for the development of digital access and ethos of students in view of the persistence of sociodemographic digital divide can be formulated as one of the challenges of forming an information society in Slovakia.

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Teacher assistant from the perspective of adult education

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Abstract: *The authors present the current requirements for professional competences of teacher assistants in the educational, (psycho) didactic, social and communication, managerial, normative and professionally-cultivating areas, which place higher demands on teacher assistants' training at faculties of education, as well as in the system of lifelong learning. The article documents the findings from interviews with 59 Czech teacher assistants. The authors used the grounded theory approach to analyse the data. The findings reveal the key professional competences as perceived by teacher assistants.*

Key words: *professional competences; teacher assistants; qualification prerequisites; pre-service and in-service education; professional standards for teacher assistants*

Introduction

Professional competences are crucial to define any profession. This also applies to the profession of a teacher assistant, which is a relatively young profession in many European countries. The teacher assistant in the Czech Republic belongs to teaching staff, his/her work is financed from the state budget and his/her employer is a school or an educational institution. Pursuant to *Act No. 561/2004 Coll. on pre-school, primary, secondary, tertiary technical and other education*, as amended (Česko, 2004a), and *Decree No. 27/2016 Coll. on the education of students with special educational needs and gifted students* (Česko, 2016), the position of a teacher assistant is conceived as a support measure for education of students with special educational needs. The role of a teacher assistant is to assist in the organization of educational processes in classes or study groups in which, due to the presence of students with disabilities or health or social disadvantages (hereinafter collectively referred to as "students with special educational needs"), increased demands are placed on teachers' work.

In terms of qualification prerequisites, the composition of teacher assistants in Czech schools is very diverse. The *Act No. 563/2004 Coll. on teaching staff* allows the position of a teacher assistant to be held by a university-educated graduate in the field of education, as well as an employee, who is a graduate of a secondary school with an educational focus or who has extended his/her qualifications by completing a minimum educational training in an in-service course. In the Czech Republic, a person who has completed only primary school education and extends his/her qualifications in the course for teacher assistants (Česko, 2004b) can also work as a teacher assistant. According to data from the Czech School Inspectorate, secondary school graduates with a school-leaving certificate constitute the largest group of teacher assistants (ČSI, 2017).

With the development of inclusive education, the profession of a teacher assistant in the Czech Republic is on the rise. According to available statistics, the number of teacher assistants in regional education has doubled over the last three years. A total of 17,725 teacher assistants worked in the regional education system in 2017, of which 13,660 were employed in primary schools, 2,693 in nursery schools and 975 in secondary schools (The Ministry of Education, Youth and Sports, 2018). Thus, the highest numbers of assistants are in primary schools. Currently, there is one teacher assistant per five or six primary school teachers.

With the rising number of assistants in Czech schools, it is necessary to formulate *the normative form of professional competences* of these employees, the so-called professional standards, which would help determine the conditions for the assistants' eligibility to perform specific activities in the school and the associated content of their pre-service and in-service training. In the Czech Republic, at least two attempts have been made in the last 10 years to formulate professional standards for teacher assistants (IPPP, 2010; UPOL, 2015). Professional standards for teacher assistants, which are currently being prepared, are based on the *Action Plan for Inclusive Education in the Czech Republic for 2016–2018*. They aim to define key professional activities of a teacher assistant. Professional standards for teacher assistants, among other things, should reflect the methodological text from the ESF RAMPS project (Collaboration of a school special education teacher and teacher assistant in schools involved in the RAMPS-VIP-III Project), which is to be updated in the context of changes based on the Education Act. The standard for a teacher assistant that is being prepared should be a tool for achieving, maintaining, and improving the quality of the teacher assistant's profession, but it should also reflect the demands that are placed on this profession.

The main activities of the teacher assistant are currently defined by *Decree No. 27/2016 on the education of students with special educational*

needs and gifted students as follows: "(a) assisting in educational and pedagogical activities and assisting in communication with students, students' legal representatives and the community from which students come; (b) assisting students to adapt to the school environment; (c) assisting students during classes and preparing them for classes; students are guided to attain the highest possible degree of independence, (d) necessary assistance to students in self-care and movement during classes and events organized by the school" (Česko, 2016, §5).

Myths that misinterpret educational activities of teacher assistants are not beneficial to the teacher assistant's profession. One of them is the myth that their work does not require specific competences because they mostly act on the instructions of teachers and are only mechanically helping them. This relatively widespread myth downplays the importance of the need to set requirements for specific professional training of teacher assistants.

Research design

As part of the research project "*Preconception, construction and reconstruction of the professional identity of a teacher assistant*" (GAČR 1707101S), a team of researchers from the Faculty of Education at Charles University (Czech Republic) and researchers from the Faculty of Arts and Social Sciences at University of New South Wales Sydney (Australia) focused on the professional identity of teacher assistants as a factor significantly influencing both the execution of this profession and the professional preparation of a teacher assistant. The professional identity of the teacher assistant is perceived by the researchers as dynamic and constructed in social acts which take place throughout the educational process, but especially in the interaction of the teacher assistant with students, teachers and parents and in activities that have the nature of purposeful behaviour, as part of which the teacher assistant verifies new methodological and organizational procedures and refines the already proven procedures. The survey was based on a mixed research strategy involving both quantitative and qualitative procedures. This article uses data from semi-structured interviews and demographic questions. Interviews with 59 teacher assistants took place during 2017, in an environment of standard primary schools in five regions of the Czech Republic. Their average length was 25 minutes. Teacher assistants by their signature confirmed their consent to be involved in the research project and were informed about anonymity in data processing. The interviews were audio recorded and transcribed – the obtained data was subsequently analysed using the grounded theory method (Strauss, Corbin, 1999). In the demographic questions, participants with higher education prevailed, there were only 3 assistants without the GCE, 37 teacher

assistants had secondary education with the GCE, 2 were graduates of a tertiary technical school and 17 had university education. Participants had a very diverse previous practice in the education sector. Fourteen assistants worked in the education sector for less than two years, 19 assistants had a teaching experience of between two and six years, 14 assistants were in the school environment for six to twelve years, and 12 assistants had more than twelve years of teaching experience. With an exception of the length of work experience (on average higher than in the total population of teacher assistants in the Czech Republic), the research sample in demographic characteristics corresponded to the usual demographic profile of teacher assistants presented by official statistics of educational institutions in the Czech Republic.

Key competences from the perspective of teacher assistants

The findings described below are based on the data analysis using the grounded theory approach, specifically the open and axial coding. A total of 146 codes were created by open coding and further categorized, i.e. grouped into 24 categories according to their affiliation to the same phenomenon (Strauss, Corbin, 1999). Through axial coding, we created links between categories and subcategories and thereby identified, inter alia, areas of key competences in the profession of teacher assistants. According to the relevance for setting the content of the professional training of teacher assistants, we categorized the identified competences into 7 groups according to the Vašutová model (2004): (i) subject specific competences, (ii) (psycho) didactic competences, (iii) (special) pedagogic competences, (iv) diagnostic and interventional competences, (v) social and communication competences, (vi) managerial and normative competences, and (vii) professionally cultivating competences. In order to demonstrate the relevance of selected groups of competences, we select only fragments of statements from the selective protocol.

Within the scope of *subject specific competences*, the teacher assistant should be able to transform basic knowledge of scientific disciplines and ways of exploring the given fields into the way of thinking of students with special educational needs. Within 3 categories (personal aptitude for the teacher assistant's work, professional aptitude for the teacher assistant's work, the teacher assistant's direct work), the importance of subject specific competences was confirmed by the participants.

"Hm, I help kids understand the subject matter and make knowledge available to them. [...] To ensure, that they understand it better." AP40

"I am tutoring now, I still have six hours of tutoring, so my support consists in tutoring Czech, as a Czech teacher, those difficult things, I am aware of." AP45

"Well, I have a student whose main problem is a disability, an eye defect. He has relatively strong glasses and an eye tumour on one eye, so I actually more or less devote my time to this student and teach him English, Czech and mathematics. As to mathematics, he's now in the sixth grade, so there's a lot of drawing and I have to help him with his drawing tasks to make them as precise as possible. He needs an explanation, how to place a ruler, how to place a protractor, you know? And as regards Czech and his language studies: My control over his language studies is more difficult, because I can only check, whether he has done his homework, whether he knows where we are with the curriculum, because I do not speak English." AP34

As part of *(psycho) didactic competences*, the teacher assistant should be able to adapt the teacher's basic methodological repertoire in teaching to individual student needs, use student learning incentive and support tools in respect of the student's individual special developmental features and use information and communication technologies to support his/her learning. Statements of participants in 4 categories (benefits of the teacher assistant's work, personal aptitude for the teacher assistant's work, professional aptitude for the teacher assistant's work, the teacher assistant's direct work) imply that these competences are needed in their work.

"Teacher assistants must be able to teach, must know how memory works, how remembering works, how it works when someone learns something and must be aware of the areas where problems can arise in order to be able to help the student, they must possess theoretical knowledge, for sure." AP45

"... and above all, they should be able to work with the character of that child. They should be well prepared for this and be able to react to both positive and negative statements of the child, in order to ensure his/her positive progress, rather than doing him/her any harm, if the child doesn't understand it." AP57

"As I have already said, I am trying to motivate her to work, when she is inattentive, we can even go outside the classroom for a walk for a while so that she calms down. Sometimes we do certain things separately, but only to a minimum extent, usually we seek to make her work in the classroom, but when she needs to finish some task or needs our explanation, we work here in the office. I have already enlarged some documents for her, for example, when they ought to take a test, in order to help her, not to be so tired, I enlarged some

documents for her. I communicate with the student's mum, basically, it is also my job, to inform her somehow." AP21

As part of (*special*) *pedagogical competences*, the teacher assistant should have a good grasp of the processes of students' learning and organization of the educational process at the school where he works. He/she should understand needs of students in education and support them with appropriate differentiated practices in schoolwork. Statements of the participants in 5 categories (the teacher assistant's cooperation with teachers, benefits of the teacher assistant's work, personal aptitude for the teacher assistant's work, professional aptitude for the teacher assistant's work, the teacher assistant's direct work) imply that these competences are extremely necessary for their work.

"I had to examine the situation, find out clearly what a particular child due to his/her diagnosis is capable of and how far his/her capabilities go, in order to be sure, what will I require from him/her, whether it is attainable for him/her or not and at the same time I wanted to ensure that the child makes real progress and that I was consistent enough. Consequently, I had to find the required information and get acquainted with it." AP48

"Further explanation of tasks, for example pointing at where we are, orientation on the screen and in textbooks, preparation of auxiliary tables, rules or re-tutoring (especially in the case of socially disadvantaged families) plus lending of aids, training of families if they are interested (mainly Roma families, where the parents are sometimes still illiterate), so we teach them how to hold a pencil, we give them homework, and that is perhaps enough." AP44

"... I have to tell him, which book he should open, what he should write, that it's written on the blackboard, I also take all the notes, because sometimes he is too slow to note down everything, so I want him to have the notes from me. Or for mathematics, he is not so much interested in, I make visual aids for him. For example, when they discussed negative numbers, I prepared a number axis for him, that he has stuck on the desk to have it constantly in front of his eyes. And also paper models, which he immediately crumpled, but looked at them before. We have a large timetable stuck on the desk for him to know what subject is scheduled for a particular hour, and he knows it by heart now, but previously, throughout the year, he was unaware of it. I have to write down everything in the homework diary, because, when the teacher assigns a particular homework and even writes it on the blackboard, he does not notice it at all, so I write everything down, word by word, even what will be in the written exam or the date the written exam is scheduled for, or a topic that will

be part of it or if there is any event for children, I have to write it down, too."
AP33

Within the framework of *diagnostic and interventional* competences, the teacher assistant should be able to actively promote the good position of the student he supports within the social relationship network in the class. He/she should be able to recognize socially challenging behaviour of the student, identify the symptoms of Specific Learning Difficulties and Attention Deficit Hyperactivity Disorder (ADHD), sensory, cognitive and other functional impairments, reflect the interests and needs of the student. Statements of the participants within 2 categories (professional aptitude for the teacher assistant's work and the teacher assistant's direct work) imply that these competences are needed in their work.

"During your career as an assistant you meet many children, every child is different, for all of them you should find out at least some information on how to work with a child with this particular diagnosis, so you need to complement your knowledge." AP05

As part of *social and communication competences*, the teacher assistant should be familiar with the means of socialization of students and be able to use them in practice, master the means of pedagogical communication in the classroom, apply effective ways of communication with students, teachers, other school staff and students' parents. Statements of the participants were confirmed within 2 categories (the teacher assistant's cooperation with teachers, benefits of the teacher assistant's work).

"... My task is, among other things, to ensure that the class accepts the child as much as possible, so I try to get the child involved in games even during breaks and last but not least, I am the child's support, so that he/she knows that any time he/she has someone to rely on when there is any problem, if the teacher cannot help him/her, I am available. So, these are the main things I help with."
AP05

In terms of *managerial and normative competences*, the teacher assistant must have the necessary knowledge of standards relating to the performance of his/her profession, ability to reflect on his/her work, master the procedures of management of learning and other activities of students, contribute to effective cooperation with the teacher, master the basic administrative tasks associated with the performance of his/her profession. He/she must also possess the skills to organize his/her work within direct and indirect pedagogical activity at

school. Statements of the survey participants within 3 categories (organizational conditions for the teacher assistant's work, methodological support for the teacher assistant's work, material and technical conditions for the teacher assistant's work) imply that these competences are really needed for their work.

"Rather, I had to complement my education in terms of how the concept of inclusion came into being, what a pedagogical support plan is, how it should be completed, how reports to the advisory bureau should be drawn up, and then legislation-related matters and formal aspects, I had to learn all this." AP44

"We are preparing various monthly and semi-annual reports, and when you write it sort of retrospectively, it makes you think about it, and you eventually see on the paper what has/has not changed." AP14

"Well, it depends on the circumstances, mostly, when these are normal classes in the lower secondary school, the teacher prepares it and I, for example, oversee that the child sticks it in his/her exercise book, underlines and adds it to the exercise book, but if these are precisely those re-educational, intervention lessons, I prepare everything myself." AP44

In the context of *professionally-cultivating competences*, the teacher assistant should act as a representative of his/her profession, adhere to ethical principles of his/her work, cooperate properly with teachers and other assistants in the school, be able to reflect on the evaluation of his/her performance by various parties, and develop himself/herself professionally through continuous self-improvement. Statements of the participants confirmed these competence requirements within a single category (importance of the teacher assistant's profession for inclusion).

"I think that the teacher assistant should have the ability to cooperate in a team, to approach his/her position as part of the whole structure, that is, the relationship – student – assistant – class teacher – parent, obviously, I consider the school management to be on the teacher's side, because at the moment when these forces are combined, it keeps the child relaxed, assured that the family, the teacher, and the assistant share the same view. And I think that at the moment these forces are combined there is a great chance that it would be most beneficial for the child." (AP49)

Conclusion

With the development of inclusive education in the Czech Republic, the number of teacher assistants is increasing. It is critical to create timeless national professional standards for teacher assistants which would be based on the identification of key professional competences. The presented research findings, which are part of a larger study focused on the mechanisms of teacher assistants' professional identity development, reflect the key professional competences as perceived by teacher assistants. It is necessary to respect these perceptions not only in setting up the work of teacher assistants in school practice, but also to take them into account when preparing a normative framework for their work – professional standards for teacher assistants, which are still missing in the Czech Republic, even after 20 years. It is also necessary to consider the structure of the required teacher assistants' professional competences in both pre-service and in-service education.

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EDUCATIONAL ENVIRONMENT AND CLIMATE FOR STUDENT EDUCATION IN NON-MEDICAL STUDY PROGRAMS - PILOT PROJECT

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Abstract: *The educational environment of the institution is an important determinant in teaching and learning. The acquired knowledge and skills of students of non-medical study programs acquired by institutional education are a prerequisite for a smooth transition to clinical workplaces and effective collaboration with health professionals. The objective of the paper is to map how the institutionalized educational environment is evaluated by students of non-medical study programs. The research sample consisted of 110 respondents from University of Presov in Presov, Faculty of Health Care, Department of Nursing and Department of Midwifery. The average age of respondents was 21.57 years (SD 2.20). Data collection was done through the Dundee Ready Educational Environment Measure (DREEM) standardized questionnaire. Respondents rated their education at 100 -150 points, which is more positive than negative evaluation.*

Keywords: *DREEM. Non-medical study programs. Educational environment. Educational climate. Student education.*

Introduction

Education is a process of pedagogical and educational activity that takes place in a diverse environment. In foreign pedagogy education means not only education itself but also teaching activity. Thus, education is the result of this action. We distinguish between formal education that takes place in schools, school facilities, universities, adult education and training carried out in non-school educational establishments and non-formal education, which is carried out in cultural, business, training and further education institutions (lifelong learning and distance education) (Obdržalék, Horváthová, 2004).

Effective teaching and learning can only take place when an optimal educational environment, also called educational reality, is in place. This includes the educational environment itself, educational needs, processes and constructs (Magurová, Majerníková, 2016). Social and emotional elements of education are a priority in an optimal educational environment and are seen as the foundations of academic achievement and personal well-being. The optimal educational environment starts with a positive, productive school environment.

This school environment also provides an intellectual and emotionally safe classroom environment that stimulates community formation, which is characterized by equal relationships (Prucha, 1997). They create a sense of belonging and support academic, social and emotional skills. The optimal educational environment reflects the belief that all students can achieve high standards. Within the optimal educational environment, the diverse needs of each student are addressed through constant attention to equality and continuous academic, social and emotional growth. The educational environment has a direct and indirect impact on student education, including their involvement in what they learn and their motivation to learn (Zelina, 2009).

The educational environment should be stimulating for all students, it should support the development of their individualities in the widest possible scope and provide them with the possibilities to use all of their potential capabilities (Hašková, 2000, p. 94).

Objective

The objective of the paper is to map how the institutionalized educational environment is evaluated by students of non-medical study programs, namely students of Nursing and Midwifery at University of Presov in Presov, Faculty of Health Care.

Data

A pilot study sample was selected by purposive sampling. The sample of respondents consisted of 110 3rd year students, of whom 85 were from Nursing (NUR) and 25 from Midwifery (MID). The average age of respondents was 21.57 years (SD 2.20). Data collection was carried out in January 2018 at the Faculty of Health Care, University of Presov in Presov, with the consent of its dean.

Methodology

Data collection was done through the Dundee Ready Educational Environment Measure (DREEM) standardized questionnaire, that assesses the educational environment and climate in health professions schools (Roof, 2005). Its translation from the original was done by a double translation method (from the English original into the Slovak language, and from the Slovak into the English and then compared with the original) by two independent translators of the licensed translation agency WANT in Košice. The DREEM questionnaire consists of 50 items, which are evaluated on a 5-point Likert scale with a rating of 0 - 4 (0 = strongly disagree, 1 = disagree, 2 = unsure, 3 = agree and 4 = strongly agree). There are 9 negative items (number 4, 8, 9, 17, 25, 35, 39, 48 and 50) that must be scored in a reverse manner (0 = strongly agree, 1 = agree, 2 = unsure, 3 = disagree and 4 = strongly disagree). A low score for these negative items means consent.

The questionnaire generates a total score of 200, representing the maximum rating of the excellent educational environment (0-50 Very poor, 51-100 Plenty of problems, 101-150 More positive than negative, 151-200 Excellent).

In addition to the overall evaluation of the educational environment by the DREEM questionnaire, we also evaluated 5 domains of the educational environment (Edgren et al., 2010):

- "Students' Perception of Learning" (12 questions and a maximum score of 48),
- "Students' Perception of Teachers" (11 questions and a maximum score of 44),
- "Students' Academic Self-Perception" (8 questions and a maximum score of 32),
- "Students' Perception of Atmosphere" (12 questions and a maximum score of 48),
- "Students' Social Self-Perception" (7 questions and a maximum score of 28).

Items in each domain with an average score of 3.5 or more are really positive. Each item with an average of 2 or less should be examined in more detail as it indicates problem areas. Items with an average between 2 and 3 are aspects of an educational environment and climate in the institution that could be increased (Roff, 2006).

We used descriptive statistics to provide information on measures of central tendency and variability (mean/average - M, standard deviation - SD).

Results and Discussion

By analyzing the results within the "**Students' Perception of Learning**" domain (Table 1) we found that all items in this domain reached an average of responses between 2 - 3. Significant shortcomings are not reported by students in this domain (none of the items reached an average score below 2), however, this assessment points out that all items could be increased. Respondents from the Nursing study program rated item 47 the best (Long-term learning is emphasized over short-term learning). The mean value is 3.00 (SD = 0.67), which we consider to be positive, given that the nursing education is dominated by the long-term education, which is necessary for the profession and further lifelong education. Overall, respondents from the Midwifery study program responded more positively (M = 31.02, SD = 10.01) than respondents from Nursing study program (M = 28.38, SD = 10.32). However, both groups of respondents perceive a more positive approach in learning. For example, in a study conducted in India, respondents rated this domain worse than our

respondents (M = 16.68, SD 4.87), specifically that „teaching is viewed negatively“ (Kohli, Dhaliwal, 2013).

Table 1 „Students’ Perception of Learning“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
1.	I am encouraged to participate in teaching sessions	2.29	0.99	2.80	0.97
7.	The teaching is often stimulating	2.18	0.97	2.43	0.69
13.	The teaching is student centered	2.46	0.91	2.52	1.04
16.	The teaching helps to develop my competence	2.32	0.58	2.73	0.68
20.	The teaching is well focused	2.24	1.19	2.62	0.30
21.	The teaching helps to develop my confidence	2.55	0.84	2.91	0.75
24.	The teaching time is put to good use	2.27	0.93	2.33	0.92
25.	The teaching over-	2.25	0.74	2.62	0.72

	emphasizes factual learning				
38.	I'm clear about the learning objectives of the course	2.39	0.85	2.77	0.96
44.	The teaching encourages me to be an active learner	2.28	0.83	2.55	0.88
47.	Long-term learning is emphasized over short-term learning	3.00	0.67	2.44	0.89
48.	The teaching is too teacher-centred*	2.15	0.82	2.30	1.21
Total		28.38	10.32	31.02	10.01

Note:

Source: Own processing

NUR – Department of Nursing **MID** – Department of Midwifery

Score: 0 - 12 Very poor, 13 – 24 Teaching is viewed negatively, 25 – 36 A more positive approach, 37 – 48 Teaching highly thought of

Analysis of the domain assessment of "**Students' Perception of Teachers**" suggests that respondents overall assessed this domain within the range of 23 - 33 (i.e., moving in the right direction) (Table 2). Respondents from the Midwifery study program evaluated this domain by a better score (reaching a score of $M = 29.76$, $SD = 9.76$), than from Nursing (where the score reached $M = 27.77$, $SD = 9.91$). All items in both files reached an average score of 2 - 3.

Table 2 „Students’ Perception of Teachers“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
2.	The teachers are knowledgeable	2.65	0.81	3.06	0.60
6.	The teachers adopt a patient-centred approach to consulting	2.49	1.16	2.81	0.85
8.	The teachers ridicule the students	2.94	0.95	2.93	1.13
9.	The teachers are authoritarian	2.73	0.76	2.80	0.64
18.	The teachers have good communication skills with patients	2,49	1.01	2.66	0.76
29.	The teachers are good at providing feedback to students	2.07	0.91	2.11	1.03
32.	The teachers provide constructive criticism here	2.23	0.68	2.51	0.84
37.	The teachers give clear examples	2.61	0.77	2.59	0.87
39.	The teachers get angry in teaching	2.44	1.02	2.77	0.86
40.	The teachers are well-prepared for their teaching sessions	2.44	0.85	2.69	0.75
50.	The students irritate the teachers	2.68	0.99	2.83	1.43
Total		27.77	9.91	29.76	9.76

Note:

Source: Own processing

NUR – Department of Nursing **MID** – Department of Midwifery

Score: 0 - 11 Abysmal, 12 – 22 In need of some retraining, 23 – 33 Moving in the right direction, 34 – 44 Model teachers

The results of the "**Students' Academic Self-Perception**" domain (Table 3) showed „a feeling more on the positive side“ among respondents in both disciplines in this domain. Students have a very similar best overall rating of item 45 (Much of what I have to learn seems relevant to a career in healthcare). The average response score in this item was more than 3. In the "**Students' Perception of Atmosphere**" domain, by analyzing respondents' responses, we concluded that they considered this area as „a more positive atmosphere“ (Table 4). The highest average item score was for item 31 (I have learnt a lot about empathy in my profession), with a score of 3.17 (SD = 0.67) among Nursing students. Empathy is very important in the practice of healthcare. In addition to professional qualifications, a nurse as well as another healthcare worker must have empathy (Ondriová, 2014).

Table 3 „Students' Academic Self-Perception“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
5.	Learning strategies that worked for me before continue to work for me now	2.51	0.91	2.96	0.65
10.	I am confident about my passing this year	2.87	0.84	2.69	1.03
22.	I feel I am being well prepared for my profession	2.55	0.79	2.73	0.75
26.	Last year's work has	2.25	0.92	2.58	0.74

	been a good preparation for this year's work				
27.	I am able to memorize all I need	2.42	0.97	2.42	0.88
31.	I have learnt a lot about empathy in my profession	3.17	0.67	2.81	0.79
41.	My problem-solving skills are being well developed here	2.65	0.85	3.00	0.86
45.	Much of what I have to learn seems relevant to a career in healthcare	3.01	0.87	3.04	0.81
Total		21.43	6.82	22.23	6.51

Note: processing NUR – Department of Nursing MID – Department of Midwifery Source: Own

Score: 0 – 8 Feeling of total failure, 9 – 16 Many negative aspects, 17 – 24 Feeling more on the positive side, 25– 32 Confident

Table 4 „Students' Perception of Atmosphere“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
11.	The atmosphere is relaxed during ward teaching	2.57	0.99	2.54	0.89
12.	This school is well time-tabled	2.61	0.96	2.35	1.11

17.	Cheating is a problem in this school	2.25	1.12	2.96	1.09
23.	The atmosphere is relaxed during lectures	2.44	0.96	2.54	0.89
30.	There are opportunities for me to develop my interpersonal skills	2.26	0.85	2,38	0.68
33.	I feel comfortable in class socially	2.52	0,82	2.58	0,69
34.	The atmosphere is relaxed during class/seminars/tutorials	2.64	0.81	2.69	0,91
35.	I find the experience disappointing	1.54	0.89	1.14	1.81
36.	I am able to concentrate well	2.48	0.84	2.65	0.78
42.	The enjoyment outweighs the stress of the course	1.68	0.71	3.00	0.68
43.	The atmosphere motivates me as a learner	2.04	0.85	1.81	1.11
49.	I feel able to ask the questions I want	1.08	0.90	2.54	0.97
Total		26.1	10.0	29.1	11.6
		1	7	8	1

Note: processing NUR – Department of Nursing Source: Own
MID – Department of Midwifery

Score: 0 – 12 A terrible environment, 13 – 24 There are many issues that need changing, 25 – 36 A more positive atmosphere, 37 – 48 A good feeling overall

The last evaluated domain was the domain of "**Students' Social Self-Perception**" (Table 5). Students in this domain also listed items with an average item score below 2. Specifically, item 3 (There is a good support system for students who get stressed) for both groups of respondents and item 14 (I am rarely bored in this course) for Nursing study program. The overall

assessment of this domain for respondents in both groups is rated as „not too bad“.

Education is a purposeful activation of conditions enabling the optimal development of each individual in accordance with his individual dispositions and stimulates his own efforts to become an authentic, internally integrated and socialized personality - fully developed personality (Blaško, 2008). It is the activation of the educational environment that could improve the assessment of the most problematic areas that students report.

Table 5 „Students’ Social Self-Perception“ Domain Rating

Number	Item	M (NUR)	SD (NUR)	M (MID)	SD (MID)
3.	There is a good support system for students who get stressed	1.32	0.88	1.92	1,4
4.	I am too tired to enjoy the course	2.23	1.11	2.73	1.19
14.	I am rarely bored in this course	1.89	1.07	2.35	0.87
15.	I have good friends in this course	3.46	0.63	2.35	0.87
19.	My social life is good	2.95	1.13	2.23	1.19
28.	I seldom feel lonely	2.37	1.18	2.46	1.25
46.	My accommodation is pleasant	2.95	1.25	2.85	1.29
Total		17.17	7.25	16.89	7.90

Note: processing NUR – Department of Nursing Source: Own
Midwifery MID – Department of

Score: 0 – 7 Miserable, 8 – 14 Not a nice place, 15 – 21 Not too bad, 22 - 28 Very good socially

Table 6 Evaluation of DREEM questionnaire domains and overall assessment of the educational environment

Domain	Average Domain Score (NUR)	SD (NUR)	Average Domain Score (MID)	SD (MID)
Students' Perception of Learning	28.38	10.32	31.02	10.01
Students' Perception of Teachers	27.77	9.91	29.76	9.76
Students' Academic Self-Perception	21.43	6.82	22.23	6.51
Students' Perception of Atmosphere	26.11	10.07	29.18	11.61
Students' Social Self-Perception	17.17	7.25	16.89	7.90
Total	120.86	44.37	129.08	45.79

Note: Source: Own processing NUR – Department of Nursing MID – Department of Midwifery

Score: 0-50 Very poor, 51-100 Plenty of problems, 101-150 More positive than negative, 151-200 Excellent

Overall, the respondents in our pilot project evaluated their education at 101 -150 points within both groups (Table 6), which is rated as „more positive than negative“ evaluation. In available studies on the evaluation of the educational environment at healthcare institutions that have been implemented with the same measurement tool, they report a similar assessment as we found in our study - more positive than negative. For example, studies in Malaysia provided an overall assessment of 133/200 and 134/200. Studies in India provided a mean overall assessment of 101/200 (Kohli, Dhaliwal, 2013), studies in the United Kingdom reported 139/200 score, the Swedish and the Irish scored 145 or more. A score of 89/200 was reported in Saudi Arabia at the College of Medicine at King Saud University, which is the lowest published score using the DREEM instrument (Hammond et al., 2012).

Conclusion

Our study shows that students evaluate their learning environment as „more positive than negative“. Nevertheless, there are still many areas that need to be improved.

DREEM is widely used as a tool that measures the educational environment as reported by many available published studies around the world. Based on the conclusions of other similar studies, we also wanted to engage in researching this issue and by presenting our results, provide insight into the assessment of the educational environment in our faculty. While these are just the results of a pilot study, it was our intention to point out the importance of this measuring tool and offer a more general picture of its international applicability.

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CIES, TCE SIG and CEIMA – acronyms worth decoding

The Teaching Comparative Education (TCE) Special Interest Group (SIG) of the Comparative and International Education Society (CIES) brings together scholars, researchers, and lecturers of comparative and international education from around the world. Please visit <http://www.ciestcesig.org> for details. This group is dedicated to understanding and strengthening the field of comparative and international education as well as promoting the teaching of comparative and international education in higher education.

It is thanks to my engagement with these colleagues that I came across the CEIMA resources (www.ciestcesig.org/ceimahome). The founding creators of the *Comparative Education Instructional Materials Archive (CEIMA)*, who contributed to its initial electronic development, have been engaged with TCE SIG too. With the advent of the newly created website for the CIES Teaching Comparative Education Special Interest Group (SIG) by Patricia Kubow and Evan Mickey, it appeared natural to locate CEIMA on the SIG website, as CEIMA is an ongoing major activity of the SIG and provides for greater visibility for the CIES membership.

Comparative Education Instructional Materials Archive (CEIMA) collects and posts comparative and international education instructional materials from universities worldwide on a web-based archive (for example *syllabi, descriptions, and explanations of materials used in comparative education classes; and includes in-class activities, paper and presentation assignments, and small-scale ethnographic research projects, among other innovative instructional materials*).

CEIMA resources assist scholars and instructors in:

- Course planning;
- Course modification;
- Tracing the evolution of the field via the content and teaching processes;
- Learning about trends and innovations in the field;
- Making connections with colleagues worldwide.

Submitting materials to CEIMA has many benefits as it enhances instructional practice, facilitates inter-university dialogue, and provides evidence on the dynamic and evolving nature of the field. In addition, all contributors have the opportunity to link to their academic homepages via the archive.

The current TCE SIG Newsletter has brought to my attention a call for enriching the collection of materials currently hosted on the CEIMA website. The Teaching Comparative Education SIG invites all colleagues across the field to submit descriptions and explanations of in-class activities, paper and

presentation assignments, small-scale ethnographic research projects, and other innovative instructional materials along with accompanying course syllabi. Herewith, I would like to promote this resource to the interested audience in Slovakia. It would be exciting to see some submissions from Slovakia here.

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