







### Desk research report in the project "Preventing post-COVID Social Exclusion Together"

Partial report on education systems during the COVID-19 pandemic in Slovakia



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## **1**. Purpose and methodology of the research - characteristics of existing sources, short information about the authors of the study

This document is one of four desk research reports (from all the V4 partner countries). It is the third output of the project "Preventing post-COVID Social Exclusion Together" (Strategic Grant No. 22110213). The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from the International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe. It is implemented by a transnational Research Team composed of:

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The main goal of this project is to support social integration of young people, and their families, residing in rural areas and small towns in less developed regions of Central and Eastern Europe during periods of epidemic threats. This goal is to be achieved through the development of recommendations for civil society on how to successfully create Local Support Groups - Rapid Response Teams in the local environment. This project aims to help reduce the scale of educational and social inequalities in peripheral areas where the introduction of remote education had far more negative effects than in urbanized areas and metropolises.

Each of the project partners developed a separate diagnostic document for the partner country they represent.

The development of partial analyzes is a necessary stage for the implementation of further research activities undertaken in this project.

Documents have a similar structure, however, due to the specificity of countries some chapters of the partial analysis may differ from each other (e.g. in terms of the statistical indicators or sources used). This document covers the situation in Slovakia.

#### 1.1 Purpose of the research and research issues

In connection with this project, diagnostic research was undertaken in the countries of the Visegrad Group.

The main part of the research will be carried out using the survey method (the technique of the auditorium survey). The survey research is preceded by the so-called "from behind the desk" analysis (desk research analysis). The analysis aims to provide answers to the following questions:

- 1) What is the structure of the education system in each partner country?
- 2) How did the SARS-CoV-2 pandemic evolve in the selected country in 2020-2021?
- 3) What impact did the pandemic have on formal education?
- 4) What impact did the pandemic have on the social inclusion of young people and their families in the context of social, educational and digital exclusion?
- 5) Which of the regions of a given country of the Visegrad Group should be considered peripheral regions and be considered as the location for the survey research?
- 6) What are the examples of good practices implemented to counteract the phenomenon of exclusion (social, educational and digital) during the pandemic?

The structure of this document is determined by the questions listed above.

The purpose of the analysis carried out in the second chapter is to present the education system in Slovakia. The analysis takes into account the structure of education, stages of formal education, compulsory education, and legal acts regulating formal education at the central and regional level.

The purpose of the third chapter is to outline the course of the SARS-CoV-2 pandemic in Slovakia in the years 2020 and 2021, and to present its impact on formal education. Particular attention was paid to the implementation and continued use of remote and hybrid education, and the impact of the pandemic on the social inclusion of young people, and their families, in the context of social, educational and digital exclusion.

The fourth chapter deals with the selection of the region in which the research will be conducted: a region that meets the criteria of a peripheral region. The results of the analysis presented indicate that Eastern Slovakia meets the criteria. The analysis included in the fourth part of the study allowed for the characterization of Eastern Slovakia in the context of economic development, taking into account such indicators as: unemployment rate, GDP per capita, percentage of long-term unemployment, average salary, and indicators characterizing access to infrastructure. This section also presents the "peripheral areas" of the studied region.

The fifth chapter presents recommendations on how to support regional institutions in counteracting the phenomenon of exclusion during a pandemic. The description of good practices during the SARS-COV-2 pandemic was preceded by the characteristics of potential regional institutional recipients. Then, the legal regulations related to the epidemic situation

and the most important recommendations regarding the amendment of legal acts in the context of implementing remote education requirements during a pandemic were indicated.

Recommendations on the implementation of good practices aimed at counteracting social and educational exclusion of students (and their families) without or with limited access to the Internet and digital equipment were also presented.

### 1.2 Qualitative data analysis - desk research summary

This study uses the desk research method by reviewing domestic and foreign literature on the subject at hand. The basis of the applied method were documents with official statistics, reports, analyses and scientific publications. The data which was used, inter alia, was data collected in: National Institute of Certified Measurements of Education, Institute of Educational Policy, State Pedagogical Institute, Statistical Office of the Slovak Republic, reports from non-profit organizations and scientific articles on the issues raised.

The COVID-19 pandemic has had an unprecedented impact on education, pupils and students worldwide, including Slovakia. More than a billion students worldwide have been affected by the new coronavirus (UNESCO, 2020).

The nature and course of the implementation of teaching methods used in the schools in Slovakia was documented by several research studies carried out mainly among primary and secondary school teachers. An extensive survey on the course of distance education in all primary and secondary schools was carried out at the end of the 2019/2020 school year (1<sup>st</sup> pandemic wave in Slovakia) with the support of the *Ministry of Education, Science and Research and Sports of the Slovak Republic* and in cooperation with *National Institute of Certified Measurements* (NÚCEM) (Ostertágová & Čokyňa, 2020, p. 11).

According to official data from Institute of Educational Policy:

- In 2020, 52 000 primary and secondary school pupils in Slovakia remained without access to education, which represents 7.5% of the pupil population;
- The situation was most critical in special primary schools, where 18.1% of pupils did not have to take part in distance education;
- The proportion of students that did not participate in distance education was higher in primary schools with a higher number of students from socially disadvantaged backgrounds (SZP) where 13.9% of the pupils did not participate in distance education, and 23.8% of pupils in secondary schools with the highest proportion of children from SZP were not involved in distance education;
- The share of pupils uninvolved in distance education also differed by region, with the highest share of uninvolved pupils being in Košice (12.7%), Prešov (11.8%) and Banská Bystrica regions (9.2%);
- 18.5% of pupils did not learn online;
- The situation was again most difficult in the case of special primary schools, where 63.6% of pupils did not learn through online teaching;

- The share of non-participating pupils in online teaching was again the highest in the case of schools with a high proportion of pupils from the excluded groups, where no more than half of the pupils were educated through online teaching (51.4%);
- The highest share of non-participating pupils in online teaching by region was in the *Prešov Region* (29.4%), the *Košice Region* (27.3%) and the *Banská Bystrica Region* (23.1%)(Ostertágová & Čokyňa, 2020, p. 13 15).

A large survey on the effects of the pandemic on education was carried out in May 2021 (2nd wave of the pandemic) by the Comenius Institute together with the Center for Educational Analyzes with the help of the Focus agency.

The results of the research showed that 81% of children took part in distance education regularly, almost 10% of children did not take part in distance education at all, and approximately 82.5% of students participated in teaching via the Internet. According to the survey, 10% of children had only offline teaching (through printed worksheets, telephone consultations, face - to - face teaching in small groups, etc.); teachers also commented on the help and support of the ministry of education, and the majority (40%) classified it as grade 3.

The survey noted the unpreparedness of schools for distance education required by the new situation due to the lack of a coordinated approach by the Ministry of Education, and the lack of guidelines for distance learning to ensure access to education for all children. At the same time, since the beginning of the pandemic, many teachers and other stakeholders have pointed out that many children, especially from poor Roma families, do not have access to education at all.

According to teachers, the pandemic brought several negative phenomena, but also certain positives. They consider the following to be significant negatives: deterioration in working comfort (46%), deterioration in mental health (41%), deterioration in physical health (35%), and deterioration in the socio-economic situation (32%). In terms of the effects of the pandemic on pupils, up to 84.5% of teachers stated that pupils learned less of the curriculum. In terms of the positives of the pandemic, teachers reported mainly the improvement of digital skills (59.6%), and 39.6% of teachers stated that they improved their presentation skills.

In the survey, teachers also drew attention to the need for technological equipment, necessary for online teaching, to be made available to teachers and students, and the need for methodological support for teachers in distance learning, especially support in how to motivate students to learn. At the same time, it is necessary to provide support for teachers to improve their work comfort, mental and physical health. Teachers went on to say, that one in four students would need some form of additional support when they return to the school. 61% of teachers imagine this support in the form of tutoring (Comenius Institute, 2021).

Research by KPMG Business Institute also showed that schools and teachers were not sufficiently prepared for online teaching, so teachers had to study via YouTube or use another online tutorial (every third teacher), and 29% of teachers completed external training or consulted with an online presentation expert (KPMG, 2020). In connection with the readiness of teachers for distance learning, the findings of research carried out by the Dionýz Ilkovič Foundation, which was attended by 570 science teachers (mathematics, physics, informatics,

chemistry) in June 2020, provided interesting results. The results showed that teachers felt prepared rather than unprepared for online teaching, with 76.8% saying that they started working online within two weeks of the outbreak of the pandemic. It should be emphasized, that these were science teachers, most of whom used their already acquired technical skills and their own technical equipment and teaching resources as far as the content of teaching was concerned (Dionýz Ilkovič Foundation, 2020).

Distance education meant new challenges not only for teachers and students, but also for parents. Without their support and cooperation, this form of education would not be possible. The Institute for Public Affairs (IVO) in cooperation with Slovak Telekom and Accenture conducted a survey in February 2021 (i.e. during the 2nd wave of the pandemic in Slovakia) aimed at analyzing the attitudes and experiences of parents, in order to identify the basic problems that their children need to deal with in distance education (Velšic, 2021, p. 2). The help from the parents was both technical and pedagogical. As many as 77% of parents said they had to give their child some form of technical support. In terms of pedagogical support, up to 96% of parents mentioned helping with the interpretation of the curriculum, 95% mentioned helping with solving projects and tasks, and 78% of parents tested their children on their curriculum. The biggest problem of distance education, according to parents, was the lack of team support and the loneliness of the child (78% of the surveyed parents) (Velšič, 2021).

Nationwide distance teaching represents an unprecedented situation, not only for the Slovak education system, and it has brought with it and revealed many problems. The conducted surveys reveal the concerns of teachers and parents regarding two areas of life of children and pupils in particular - educational and social. Many teachers perceive problems related to insufficient technical conditions, but also due to the digital skills of teachers and students themselves. Furthermore, there are pedagogical problems related to the oversizing of the curriculum and the need to adapt the curriculum to the conditions of distance learning; problems related to insufficient feedback and problems related to learning resources. Many of these problems stem from insufficient and uncoordinated support from the Ministry of Education. The pandemic and the requirements, or needs, of distance education also showed unpreparedness in terms of children's self-regulatory skills (loss of learning habits, daily routine, boredom, lack of interest in learning, etc.). Parents, to a greater extent, perceive the absence of social contacts of children as the biggest problem of distance education, as well as the absence of hobby activities, extracurricular activities, clubs, etc.

These problems concern the general population of children and pupils, but have become even more pronounced in children and pupils with special educational needs. Many of these children were practically not educated at all during the distance learning period. This was partly due to the already mentioned technical problems (insufficient technical equipment, poor internet connection, but also low level of digital skills of children), and partly due to unsuitable family conditions (large number of family members, lack of interest and inability of parents to provide help and support, etc.). Teachers were also inadequately prepared for distance education of Roma children and for communication with their parents, who showed greater confidence and willingness to cooperate with field social workers or community workers than with the teachers themselves. Parents of children with special educational needs, in turn, pointed to the absence of compensatory measures during distance education, to which their children are entitled. It turns out that certain groups of children with ŠVVP, and children within socially disadvantaged groups, need to be educated in person.

# 2. Slovak education system in a nutshell (primary, secondary, higher/tertiary education)

# 2.1 Structure of the education system, stages of formal learning and compulsory education

The school system in Slovakia is characterized by the fact that a substantial part of educational policies and curricula are created by state authorities. The authorities governing education are: The Ministry of Education, Science, Research and Sport of the Slovak Republic and institutions established by it, such as the State Pedagogical Institute, the State Institute of Vocational Education, the National Institute of Certified Measurements of Education, etc. (Hajdúková et al., 2012).

The Ministry of Education, Science, Research and Sport of the Slovak Republic and the State School Inspectorate are the central state administration bodies for kindergartens, primary schools, secondary schools, universities, school facilities, lifelong learning institutions, etc. At the regional level, the performance of the school administration is ensured by district authorities located within the region - the department of education and the self-governing regions. At the local level, there are municipalities. The institutional level is represented by schools and school facilities. The founders of schools are at the level of towns and villages.

The basic principles of school policy in Slovakia include:

- democratization characterizes the accessibility of citizens to education according to the Constitution of the Slovak Republic and the Education Act;
- decentralization places the obligation of decision-making on the establishment, abolition and profiling of schools and school facilities in accordance with the principle of subsidiarity, i.e. on the level of local and regional public administration bodies;
- humanism expresses the relationship between the teacher and the student based on mutual respect and trust;
- alternative expresses the possibility of creation and development of alternative schools from the point of view of the founder, the possibility of experimental verification of alternative educational programs;
- autonomy manifests itself on two levels, namely the autonomy of the school and the autonomy of the teacher. Since 2001, legal personality has applied to all primary and secondary schools and, according to the decision of the founder (municipality), also to kindergartens;
- permeability allows the student vertical and horizontal permeability in both primary and secondary schools while meeting certain requirements;
- comparability enables the comparability of our school system with the level of developed countries of the world. All legislation is subject to approximation in order to approximate the legislative standards of European countries in particular;

• flexibility is expressed mainly in curricula, in order to adapt to the ever-changing demands of the labor market. Flexibility is also emphasized in the creation of school educational programs that reflect the specifics of the regional, local character and the needs of students, parents, and the school itself, based on the state educational program (Eurydice, 2021).

Rights and obligations in the field of education are enshrined in Article 42 of the Constitution of the Slovak Republic, which emphasizes that the right to education and school attendance is mandatory. Citizens of the Slovak Republic have the right to free education in primary and secondary schools according to the abilities of the citizen and the possibilities of society, and also at universities. In church and private schools, education and other services may be provided for a fee. The financing of schools is based on the normative principle, i.e. schools are financed according to the number of pupils and the personnel and economic demands of the educational process. Higher education is also free of charge for full-time students in the standard length of study.

The Education Act states that no one can be exempted from compulsory school attendance. Children and pupils of citizens belonging to national minorities and ethnic groups are guaranteed the right to education in their language under the conditions established by law (Eurydice, 2021).

Pursuant to Act no. 245/2008 Coll. (School Act) The school system in the Slovak Republic consists of the following types of schools:

**Kindergarten** (MŠ). Kindergartens are intended for children 3 - 6 years of age, and provide pre-primary education in Slovakia. They are an integral part of the school education system. They support the social-emotional, intellectual, physical, moral, and aesthetic personal development of children. They also develop abilities and skills and create preconditions for further education. They prepare for a life in society in accordance with the needs of the individual and the age peculiarities of children (Act No. 245/2008 Coll.). From the 1<sup>st</sup> of September 2021, pre-primary education is compulsory for any child who reaches 5 years of age by the 31st of August 2021. In Slovakia, in connection with demographic development, the network of kindergartens began to decline sharply after 1990, when there were 4,025 preschool facilities, and it decreased until 2008, when there were 2,871 kindergartens in the network of kind

**Primary school** (ZŠ). Basic and lower secondary education is provided in a primary school, which has two levels: *1st level* - 1st to 4th year of elementary school; *2nd level* - 5th to 9th year. Primary schools can also establish a zero grade for children with a delayed start of compulsory schooling. Ten years of school attendance is compulsory, and compulsory schooling lasts until the end of the school year in which the pupil has reached the age of 16. Compulsory schooling usually begins at the age of six; however, if the child is not adequately physically or mentally mature after reaching 6 years of age, the child's legal representative will request or the kindergarten will propose, after examination of the relevant counseling facility, postponing of the start of compulsory schooling by one school year. Since 2002, it is

possible to place a child who has reached the age of 6 in the zero year established in elementary school if the child does not reach school maturity or comes from the socially disadvantaged environment, and due to the language and social environment he / she is not expected to master the curriculum of the first year of elementary school in one school year. Elementary school classes are co-educational. In each class level there are students of the same age, with the exception of students who repeat the class level or students with intellectual talent. An exception is also made for pupils with delayed compulsory school attendance. Primary schools are divided into: primary schools with all grades (fully organized primary schools), primary schools that do not have all grades (non-fully organized primary schools).

**Gymnasium** A gymnasium is a secondary school providing general education. It prepares students in a four-year, five-year or eight-year educational program. At present, the number of pupils who are interested in studying at a gymnasium is significantly increasing in Slovakia, although about 60% of pupils are studying in secondary vocational schools.

**Secondary vocational school** (SOŠ). The secondary vocational school provides education in a minimum of two years and a maximum of five years. Educational programs are focused on practice, especially on the performance of professional activities in the national economy, health care, public administration, culture, arts and other areas or they prepare for further study. At present, there are 27 fields of study and more than 80 study programs being offered. In an effort to improve vocational training, from the 2015/2016 school year onwards, secondary vocational school students have the opportunity to be educated by the dual education system (Act No. 61/2015 Coll.), which means that from a practical point of view, the student prepares for the profession, groups of professions, or professional activities according to the specific needs and requirements of the employer directly at the student's workplace. Secondary schools also provide follow-up forms of vocational education, which include: postgraduate and post-secondary studies. Postgraduate study provides a higher level of general and widely profiled vocational education and training. It fulfills the needs of students to improve their performance in a profession, allows them specialize in the performance of certain technical and economic activities of an operational nature, and to prepare them for further education. Post-secondary studies are divided into: advanced studies / innovative studies (these are studies in which students improve or innovate their knowledge and skills acquired in the field in which they passed the school-leaving examination) and qualification studies (in which students obtain a qualification in another field of study than that in which they passed the school-leaving examination).

**High sports school.** A secondary sports school is determined by the same legislative regulations as a gymnasium or a secondary vocational school. Sports training is carried out in the range of 10 - 24 hours a week and is fully within the competence of the school.

**Conservatory** The conservatory provides comprehensive art or art-pedagogical education. It is divided into two types: a music and drama conservatory (disciplines: singing, music, dance, music and dramatic arts; the study lasts six years) and a dance conservatory,

which provides education in the field of dance in an eight-year continuous educational program.

**Schools for children and pupils with special educational needs**. These include kindergartens, primary schools, secondary schools, practical schools and vocational schools. A special educational need of a pupil is a requirement to adjust the conditions and procedures of upbringing and education for a child, which result from his health or social disadvantage or talent. The upbringing and education of children and pupils with disabilities takes place either in special schools for children with disabilities, in other schools in special classes, or in regular classes together with other children or pupils.

**Art school** (ZUŠ). The primary art school provides art education and training mainly for primary school pupils, but it can also organize studies for children aged below the age of compulsory school attendance, secondary school pupils, and adults. It may establish music, art, dance and literary-dramatic departments, and other art departments only with the consent of the Ministry of Education. At present, there are 201 state, 162 private and 11 church art schools in Slovakia.

**Language school**. The language school provides education in foreign languages, teaching foreign languages with a professional focus, and prepares for translation and interpreting activities. Education takes place in courses. Education can be completed by taking a state language exam at a language school, which is authorized by the Ministry of Education. There are 9 state, 10 private and 1 church language school in Slovakia.

Education in primary and secondary schools is carried out according to school educational programs. Schools create the educational programs themselves based on the state educational program for the relevant level and type of school (so-called two-level curriculum system). Their compliance is checked by the State School Inspectorate. Since 2008, home education has also been possible in Slovakia, which, according to the law, is characterized as individual education. It is possible for primary school pupils.

Special attention is paid to the upbringing and education of children and pupils with special educational needs. This category includes: children and pupils with disabilities, children and pupils from socially disadvantaged backgrounds, children and pupils with talents. Children and pupils with special educational needs are usually educated in mainstream schools.

Education and training of children and pupils from socially disadvantaged backgrounds is implemented:

- in schools in mainstream classes with an individual approach to pupils with social disadvantages;
- in schools in regular classes together with other pupils of the school, while some subjects may be completed by the pupil according to an individual educational program;
- in schools with special classes.

Kindergartens, primary, and secondary schools are prepared for the upbringing and education of talented pupils. Such a school educates talented children in all classes and in all grades. Classes for the development of children's talents may be established in kindergartens, primary schools, and secondary schools with the consent of the founder.

The system of school facilities in Slovakia consists of:

- school educational facilities (school children's club, school center for educational activities, leisure center, school dormitories, school economy, center of professional practice);
- special educational facilities (diagnostic center, reeducation center, medicaleducational sanatorium);
- school facilities of educational counseling and prevention (center of pedagogicalpsychological counseling and prevention, center of special-pedagogical counseling);
- special purpose school facilities (outdoor school, school catering facilities, school service center).

**The system of universities consists of**: public universities, state universities and private universities. Universities provide higher education. They can be state, private, and public. Military and police colleges are state budget organizations, medical colleges are state subsidized organizations. Universities in the Slovak Republic are legal entities. In terms of the system of financing, ownership and registered office, they are divided into:

- Public universities with their registered office in the territory of the Slovak Republic are public and independent institutions. They are managed by self-governing bodies in accordance with the relevant regulations of the university. There are currently 20 public universities in Slovakia.
- State universities based in the Slovak Republic are military, police and medical universities. Their budgets are linked to the state budget as a contributory or budgetary organization of the relevant chapter. There are three state universities in Slovakia.
- Private universities are legal entities with a registered office in the Slovak Republic or with a registered office in the territory of an EU Member State. They are established for the purpose of education and research. The state consent of a legal entity to operate as a university is granted by the Government of the Slovak Republic with input from the Slovak Accreditation Agency for Higher Education. There are currently 10 private universities in Slovakia.
- Foreign universities provide education on the territory of the Slovak Republic in accordance with the legal regulations of the state where the university is located on the basis of the authorization of the Ministry of Education, Youth and Sports of the Slovak Republic. There are 8 such universities in Slovakia.

Further education builds on the level of education achieved in school education. Its mission is to enable supplementing, expanding and deepening education, or retraining by acquiring another field of education.

#### 2.2 Legal acts regulating formal education at the central and regional level

The school system in Slovakia has gradually changed in all areas (management, competencies and authorizations of the Ministry of Education, Youth and Sports of the Slovak Republic, at the level of local state administration bodies, management and establishment of schools and school facilities; content and methods of state school inspection, conditions and management education).

The first legislative changes occurred after the adoption of Act no. 596/2003 Coll. on state administration in education, school self-government, and on the amendment of certain laws, which started the process of decentralization (Hajdúková et al., 2012). The Act stipulates in particular: competence, organization and tasks of state administration bodies in education, municipalities, self-governing regions, and school self-government bodies and determines their competence in the field of state administration in education, school self-government, and in creating the network of schools and school facilities of the Slovak Republic..., inclusion, decommissioning and changes in the network and in the field of establishment and cancellation of schools and school facilities (Act No. 596/2003 Coll. ...). Simultaneously with this Act, Act no. 597/2003 Coll. stipulates the financing of primary schools, secondary schools and school facilities. Financing of schools in Slovakia is normative, it can simply be described as financing per capita (per person). The budget of the Ministry of Education is part of the state budget, which is approved annually by the National Council of the Slovak Republic (Parliament). Schools and school facilities in the founding scope of all types of founders (regional school authorities, self-governing regions, cities and municipalities, churches or private entities) are financed from the state budget.

Some schools and school facilities, e.g. Kindergartens (with the exception of kindergartens for children with special education needs, which are in the founding competence of regional school authorities), art schools, language schools, and leisure centers are financed from the budgets of municipalities or self-governing regions.

### Table 1. Levels of education in Slovakia

Age	Degree o	f education attained	ISCED level		
	pre - primary education				
- 5		nary education rten, special kindergarten	020		
(2)3	unfinished 1st grade of elementary school				
-		primary education	100		
6 - 9	c	1st grade of elementary school; students with MP variant C after elementary school students with MP variant B after elementary school	242		
9	sic ation	students with MP variant A after primary school	242		
5	basic education	lower medium			
- 1	e	2nd grade of elementary school after completing the 4th year of 8-year educational programs at secondary schools			
10		after completing the 1st year of 5-year educational programs at secondary schools	244		
		lower secondary vocational education			
		OU (training, apprenticeship)	252		
		practical school lower secondary vocational education	253		
1	<u>ъ с</u>	2-year educational programs at secondary schools	253		
5 - 17	secondary education	lower vocational education with an apprenticeship certificate	0.70		
15 -	con luca	OU (teaching) secondary vocational education without high school diploma, with an apprenticeship certificate	352		
1	se ed	educational programs at SOŠ, in which students obtain an apprenticeship certificate without a	353		
		high school diploma			
		secondary vocational education without high school diploma and an apprenticeship certificate	252		
		educational programs at SOŠ, in which students do not obtain an apprenticeship certificate or a high school diploma	353		
		complete secondary general education with high school diploma			
	ıry	grammar school	344		
0	complete secondary education	complete secondary vocational education with high school diploma and apprenticeship certificate educational programs at SOŠ, in which students receive an apprenticeship certificate and a high	354		
6/5		school diploma	554		
15 - 19/20		complete secondary vocational education with high school diploma and without apprenticeship			
1:		certificate educational programs of study fields in postgraduate studies at secondary schools, during which	454		
		students obtain a high school diploma	354		
		educational programs at secondary schools, during which students receive a high school diploma			
_	n	post - secondary education post-secondary qualification study			
- 21	post- secondary education	post-secondary qualification study			
19		post-secondary improvement study	454		
	e S				
	n n	higher professional education with a graduate diploma educational programs at SOŠ completed by a graduation exam			
- 22	higher vocational education	educational programs at SOS completed by a graduation exam conservatory, dance conservatory			
19 -	hig ocat duc	post-secondary specialization study	554		
	ě K				
	university bachelor	university education I. degree - bachelor			
		professionally oriented bachelor's degree programs at universities academically oriented bachelor's degree programs of universities	655 645		
Ι	nive	bachelor study programs with non-specific orientation	665		
	n L				
	university master	higher education II. degree	766		
I		continuous master's, engineering and doctoral study programs of universities master's, engineering and doctoral study programs of universities continuing after obtaining a	766 767		
		bachelor's degree			
		study programs of universities with the performance of a rigorous examination	768		
	l ty	higher education III. degree – doctoral	0.11		
	university doctoral	doctoral study programs of universities postgraduate study and scientific education	864		
I	univ doc				
	د د				

The main idea of changes in the content of state educational programs lies in the effort to reduce factual knowledge in favor of the development of key competencies, as well as in integrating the content of education into educational areas.

The Special Act (Act No. 61/2015 Coll. On Vocational Education and Training and on Amendments to Certain Acts) regulates the conditions for ensuring vocational education and training of secondary vocational school students, the types of secondary vocational schools, practical training, the dual education system, verification of the employer's ability to provide practical training in the dual education system, regulation of mutual rights and obligations of the student, secondary vocational school and employer in practical training, material provision of students and financial security of students, coordination of vocational education, and training for the labor market.

The organization and provision of education and training of individual levels and types of schools are regulated by the Decrees of the Ministry of Education of the Slovak Republic (Decree of the Ministry of Education of the Slovak Republic No. 306/2008 Coll. On Kindergarten, Decree of the Ministry of Education of the Slovak Republic No. 320/2008 Coll. On Secondary Schools, Decree of the Ministry of Education of the Slovak Republic No. 324/2008 Coll., On Basic Art School, Decree of the Ministry of Education of the Slovak Republic No. 321/2008 Coll., On Special School, Decree of the Ministry of Education of the Slovak Republic No. 322/2008 Coll., on special schools). Decrees implementing regulations in connection with the Education Act stipulate the details on upbringing and education in individual types of schools and school facilities in regional education, etc. (Hajdúková, 2015).

An important formal education legislation is also Act no. 138/2019 Coll. on pedagogical staff and professional staff and on the amendment of certain laws. The act regulates the rights and obligations of pedagogical and professional staff, their work activities and professional development, the competence of the Ministry of Education, Science, Research and Sports of the Slovak Republic ..., controls professional development, administrative offenses and the Central Register of Pedagogical Employees, Professional Employees and Other Employees of Schools and School Facilities ... (Act No. 138/2019 Coll. on Pedagogical Employees ..., p. 1).

In connection with the above Act is the Regulation of the Government of the Slovak Republic no. 201/2019 Coll. on direct educational activities.

Universities are legislatively determined by Act no. 131/2002 Coll. on Higher Education Institutions and on Amendments to Certain Acts, as amended, which defines the mission, the tasks of universities, their position, academia, academic rights and freedoms, public, state, private and foreign universities, their structure, financing of higher education institutions, the student support system, etc.

In addition to laws, regulations and decrees, the Ministry of Education, Youth and Sports of the Slovak Republic also issues other departmental regulations, in particular: directives and methodological guidelines, which it publishes on its website.

# 3. The course of the SARS-CoV-2 pandemic in Slovakia and its impact on formal education

#### 3.1 The course of the pandemic in the specified country

The first preventive step against the spread of COVID-19 in Slovakia was taken in February of 2020. On the 6<sup>th</sup> of March 2020, the first case of COVID-19 was recorded in Slovakia and an emergency was declared on the 12<sup>th</sup> of March 2020. On the 16<sup>th</sup> of March 2020, all schools were closed and the state of emergency began to apply until the 14<sup>th</sup> of June 2020. All leisure facilities were also closed. A mandatory 14-day quarantine was introduced for all those who returned from abroad and only permanent or temporary residents, or people possessing a valid Slovakian passport, could enter Slovakia. Retail sales and sale of services in all establishments, except grocery stores, drugstores and pharmacies was also prohibited. Strict measures against the spread of the pandemic have kept the number of infected people under control. However, the numbers began to rise along with the relaxation of measures from the summer of 2020. On the 11<sup>th</sup> of August 2020, the Minister of Health confirmed the second wave of the pandemic. The overall situation deteriorated significantly during the second wave of the pandemic in the winter of 2020/2021. On the 1<sup>st</sup> of October 2020, the state of emergency was again declared by the Government of the Slovak Republic and it lasted until 14<sup>th</sup> of May 2021. It was abolished based on an amendment to the Act on Economic Mobilization which allowed the government to manage a pandemic even without a state of emergency. Thus, the situation was not improved until the end of spring 2021. Since June of 2021, Slovakia has been preparing for the third wave of the pandemic. On September 26<sup>th</sup>, 2020, vaccination against COVID-19 began in Slovakia.

#### 3.2 Impact of the pandemic on the area of formal education

The pandemic resulted in a professional change in the functioning of schools. From 16<sup>th</sup> of March 2020 to the 1<sup>st</sup> of June 2020, all schools in Slovakia were closed. The Ministry of Education, Science, Research and Sport of the Slovak Republic ordered the suspension of full-time education and required distance education until further notice. This affected more than 988 thousand pupils and students throughout Slovakia (UNESCO, 2020).

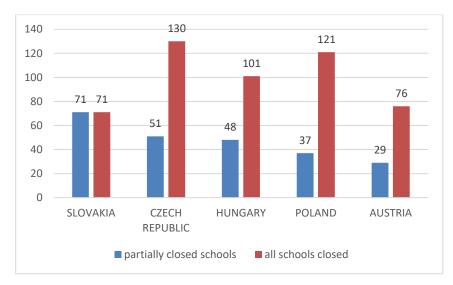
On the 1<sup>st</sup> of June 2020, only children in kindergartens and primary schools could return to school on a voluntary basis. Primary school pupils, high school students and university students continued with distance education. Secondary school pupils could not return to school until June 22<sup>nd</sup>, 2020 (the last week of the school year). Attendance was voluntary.

After the onset of the second wave of the pandemic, full-time teaching at secondary schools was suspended on the 12<sup>th</sup> of October 2020. From the 26<sup>th</sup> of October 2020, all schools were closed except for kindergartens, primary schools and crèches. All other educational institutions switched to distance learning. Following the partial release of very strict measures, children from a socially disadvantaged environment could return to schools on the 16<sup>th</sup> of November 2020, if they did not have access to distance education.

The critical situation at the turn of 2020/2021, and especially at the beginning of 2021, necessitated even stricter measures. After the Christmas holidays, all schools continued their

distance education, except for kindergartens, which were open for the children of legal guardians working in critical infrastructure industries and to the children of parents who were not allowed to work from home. Children in kindergartens, primary school pupils and the last years of secondary schools could return to schools on a voluntary basis on the 8<sup>th</sup> of February 2021. By decision of the Minister from the 13<sup>th</sup> of May 2021, all students could return to schools from the 17<sup>th</sup> of May 2021.

According to data available from UNESCO, in 2020 Slovak pupils spent more days in distance learning than children in Austria, but less than their Visegrad neighbors (Gardoňová & Rybanská, 2021; Graph 1). It should be noted that the education system was differentiated according to the age of the students. At the first stage of primary school, efforts were made to keep full-time teaching if effect for as long as possible from the beginning of the pandemic. The pupils of the second stage of primary school and secondary school students were educated for longer periods via distance education.



Graph 1. School closures - comparison of the number of days in the V4 countries and in Austria in 2020 (Source: Gardoňová & Rybanská, 2021 p. 3, based on UNESCO data)

The situation in Slovakia has shown that, neither schools, nor the Ministry of Education, Youth and Sports of the Slovak Republic were prepared for such an extraordinary situation. Schools in Slovakia were not notified of the exceptional situation sufficiently in advance, nor were they systematically prepared for it, as was the case in other countries, e.g. in Belgium, Bulgaria or Lithuania. No support was provided by the Ministry of Education in the initial phase. Schools and teachers had to rely on themselves, their resources, and their possibilities. The lack of a coordinated approach to the introduction of distance learning, and the lack of standards and guidelines on the forms and extent to which distance learning was to be provided to ensure access to education for all children, resulted in the de facto exclusion of many children from education (Bednárik et al., 2020, p. 4). Changes did not occur until after the appointment of the new government (March 21<sup>st</sup>, 2020).

On March 25<sup>th</sup>, 2020, a new website www.ucimenadialku.sk was made available. It was established in cooperation with the Ministry of Education and non-governmental organizations as a tool for official communication;

From March 26<sup>th</sup>, 2020, a call center of the Ministry of Education was established as a counseling center in the field of education and training for parents, resp. the general public. The Research Institute of Child Psychology and Pathopsychology (VÚDPaP) created similar email and telephone counseling pertaining to working at home with children with special educational needs and handicapped children.

The ucimenadialku.sk website also includes sections such as Support for Teachers for the Exchange of Experiences, and for others interested in providing counseling, consulting services, webinars, etc., and its "#zvladnemetodoma" portion provides suggestions for activities and full-time care of children with disabilities and disadvantages. It was created as part of the Inklulinka project (implemented by the Family Platform and the Slovak Children's Foundation).

One of the first implemented measures was the guideline on pupil assessment. The measure from the 6<sup>th</sup> of April 2020 stopped the grading of pupils during the continuous assessment during the interrupted full-time teaching. The measure enabled schools to evaluate pupils verbally, including in the final evaluation. In case of 1st grade primary school pupils, only a verbal assessment was possible. Testing of ninth graders, entrance examinations for secondary schools and the written part of the graduation examinations were canceled based on the decision of the Minister of Education.

A tutoring program was created in cooperation with National institute for education and universities to balance the disparity between students, many of whom did not have sufficient access to distance education. University students were involved in tutoring elementary school students for whom learning difficulties were identified. The initiative should be extended to include the involvement of the non-profit sector.

The pandemic brought with it a discrepancy in the extent of the expected and actually mastered curriculum. The Ministry of Education has issued an addendum to the State Educational Program (Supplement No. 9..., 2021), according to which schools can follow the adjusted educational standards for the first, second and third class of primary school. Part of the standards for the fourth grade could be moved to the fifth grade and may limit the scope of education in some subjects to a necessary extent (Supplement No. 9..., 2021). ŠPÚ published methodological material for adjusting the content of education (Fridrichová, 2021).

### 3.3 Impact of the pandemic on the social inclusion of young people and their families (social, educational and digital exclusion)

Anti-epidemiological measures in Slovakia involved the introduction of distance learning in schools since the beginning of the pandemic. While university students and universities themselves managed this situation relatively well, the situation in primary and secondary schools was worse.

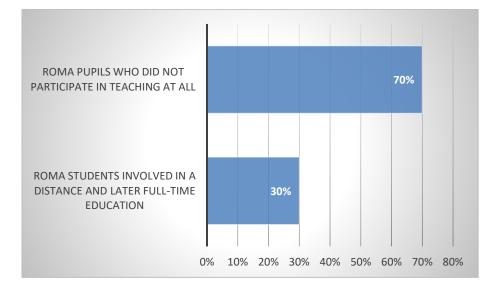
The Institute of Educational Policy published the following overview on the approach to teach pupils online and to provide basic conditions for education:

- more than 32,000 primary school students are estimated to be without an internet connection;
- 60% of children from Roma households have no internet access (in the case of children from poor majority households it is 48%, in the case of children from ordinary households it is 5%);
- 40% of children from poor households do not own a smartphone (for children from ordinary households it is 5%, for children from Roma households it is 45%);
- according to estimates from 2018, almost 110 000 pupils from excluded communities may be dependent on school meals (it is estimated that there are currently more of these children);
- 44% of children aged 6-11 live in overcrowded households;
- in 2018, more than 41,000 children were entitled to education support due to a disability (Bednarik et al., 2020).

Several surveys have highlighted the problems of distance learning, especially for children/pupils with special needs and children from marginalized Roma communities or the SZP.

Surveys of the civic association EduRoma drew attention to the problems with distance education, especially for children from marginalized Roma communities. From March to July 2020, the organization conducted a field survey entitled "How to Stay Close in a Distance". The survey sought to map the course of distance learning for students from poor Roma communities (Rafael & Krejčíková 2020a, p. 4).

The survey revealed that most Roma children were not educated during the crisis. The testimony showed that on average 70% of students did not participate in teaching at all; on average, only 30% of pupils from Roma communities were involved in distance education (Graph 2).



*Graph 2. Involvement of Roma pupils in distance education (Source: Rafael & Krejčíková, 2020a, p. 33)* 

Among other things, the survey carried out by EduRoma differentiated Roma pupils into two large groups. The result was the profiling of online and offline Roma pupils, which can also serve as a diagnostic tool in the specification and determination of compensatory education for these pupils after returning to school.

Important are the findings on barriers to the education of Roma children from marginalized Roma communities. The study pointed to the following barriers:

- Family environment of children, low educational level of parents, inability to understand task assignments, lack of positive role models;
- Insufficient ability of Roma children to self-regulate, but also specific educational problems and language barriers;
- Unpreparedness of teachers. At the time of the outbreak of the pandemic in Slovakia and the transition to a distance form of education, the teachers of these students mainly turned to help of the online lectures of the Research Institute of Child Psychology and Pathopsychology (VÚDPaP), webinars of various non-government organizations, and self-study. Teachers have expressed great criticism in relation to the Methodological Centers, especially in relation to the ROCEPO Methodological Center in Prešov, which prepared very little or no help pertaining to working with children from socially disadvantaged backgrounds. In addition to the unpreparedness for distance education of Roma children, teachers also declared unpreparedness for work with parents of children from marginalized Roma communities, limited communication and unwillingness to communicate and visit Roma families more often, proved to be of great help, which was also reflected in a higher willingness to communicate by Roma families and a higher level of trust in field workers;
- In some localities, teachers who feared the possibility of infection during the pandemic refused to visit Roma settlements;
- The children were not educated at all in cases where there were no teaching assistants, field social workers, or community workers available to distribute worksheets to the children;
- Another cause was the lack of interest of the students themselves an order from the Ministry of Education that children should not be graded, may not be failed, or not allowed to advance at the end of the school year and may return to schools voluntarily in June. Several Roma families left their children at home on a voluntary basis, partly because of fears of the spread of the disease, partly because many had lost their jobs and had difficulty in providing for basic needs for their children, but many simply because of the closeness to the beginning of summer holidays.
- Assistance from the Ministry of Education was not effective in the case of Roma children from poor families. It basically consisted only of the preparation of worksheets or notebooks. Their preparation and publication was provided by the State Pedagogical Institute (ŠPÚ). The Ministry of Education also allocated part of the money from the Ministry of Education to the district school authorities. The funds were to be used for the printing of worksheets. It turned out that their use was limited mainly by the fact that they were prepared for younger students. In addition, Roma children need help and feedback to complete such assignments, which could not be provided at home. Thus, teachers perceived workbooks more suitable for full-time education in schools;

• Many schools did not even take the opportunity to organize summer schools, mainly due to a lack of interest from children and their parents (Rafael & Krejčíková, 2020a).

The teachers stated in the survey that they would not want to return to distance education of Roma pupils. The problem with these children is working with online portals and lack of an internet connection. Under the current conditions, Roma students tend to need individual guidance, because they cannot work at home on their own. In the case of distance learning, it is important to strengthen the number of field staff, sufficiently increase the availability of learning materials, and increase the technical support for the printing of assignments and worksheets for students.

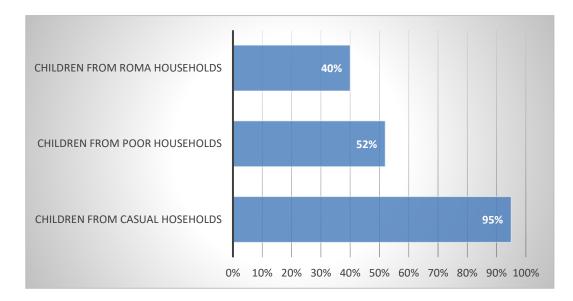
Another set of problems, which was significantly exacerbated during the pandemic, is related to the education of children and pupils with special educational needs (ŠVVP). The aim of the research carried out by Tomšik et al. (2020) from the Research Institute of Child Psychology and Pathopsychology, was to examine the differences in the view of parents of children with specific educational needs and parents whose children do not have identified ŠVVP for education. Research findings indicate, that in Slovakia we are unable to adequately respond to the situation. Education and teaching materials do not fulfill and are unable to fulfill the diverse needs and interests of students. Children with ŠVVP, as well as their parents, who were left without the support of the school, teachers, school staff or specialists, also encountered problems to a greater extent (Tomšik et al., 2020).

#### Problems of distance learning

One in three teachers identified technical problems as the biggest problem in online teaching (KPMG, 2020). According to research by the Institute of Educational Policy (Ostertágová & Čokyňa, 2020, p. 21), 36.7% of teachers who conducted online teaching stated that students had a problem working with technology, 26.3% of teachers stated that they did not have adequate internet connection speeds, 21.8% of teachers stated that they had high data consumption and high internet costs.

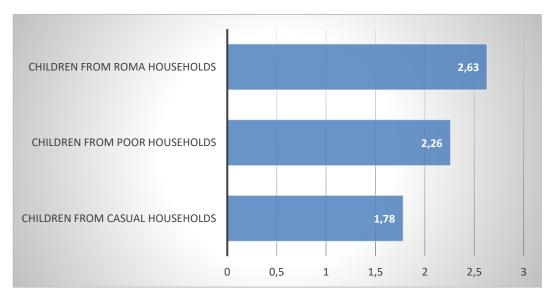
From the point of view of the pupils and students themselves, the finding of the Institute of Educational Policy (Ostertágová & Čokyňa, 2020) is alarming. Based on the results of the questionnaire survey, it was found that the lack of technical equipment was a big problem. According to available data, 82% of the Slovak population in Slovakia has access to the Internet, but this share varies significantly with respect to individual income groups (Gardoňová & Rybanská, 2021).

According to a survey conducted in April 2019, only 52% of children from poor households have access to the Internet, 40% of children from Roma households, but up to 95% of children from ordinary households (Bednárik et al., 2020; Graph 3).



Graph 3. Children's access to the Internet - a comparison of children from Roma families, poor and ordinary families (Source: Focus, 2019, In: Bednárik et al., 2020, p. 10)

Digital skills, both for students and for teachers, are important for distance learning; however, there have also been problems with insufficient digital skills, especially for children from poor and marginalized Roma communities (Graph 4).



Graph 4. Average score of digital skills of children of different social groups (Source: Focus, 2019, In: Bednárik et al., 2020, p. 11)

The IVP also drew attention to the problem of distance learning related to the suspension of meals together with the closure of schools in March 2020. Later, meals were provided by the facility operator, even for socially disadvantaged children (due to crisis, the number of children in need of food could be higher). The provision of food (in terms of providing basic physiological needs) is one of the important conditions that affect the ability to concentrate and learn (Bednárik et al., 2020).

One of the biggest problems with distance education was the fact that a large proportion of Roma children from poor families did not receive education at all.

As many as 60% of Roma children were left without contact with a teacher during the first wave of the pandemic and 70% did not attend distance learning at all. This was either due to the lack of necessary technical equipment, lack of internet access or insufficient skills and family conditions for distance education (Rafael & Krejčíková, 2020a).

The problems of pupils from marginalized Roma communities during distance education stem mainly from: insufficient spatial, hygienic and technical equipment, insufficient access to the Internet, insufficient computer knowledge of these pupils and parents, low educational level of children's parents, and thus the inability to cooperate and provide educational support to the children. Also, the lack of interest in cooperating on the part of parents and the unpreparedness of the teachers themselves (Branikovičová, Lášticová, 2020; Rafael & Krejčíková, 2020a).

Another problem of distance education, especially for children with special education needs, was the lack of support of pedagogical and professional staff for students with special education needs and their parents. Overall, it can be stated that the level of pressure on parents increased during the pandemic in connection with distance education. The help and support that was necessary for parents was not only technical but also pedagogical. Therefore, the parents of pupils with special education needs who experienced virtually no support from teachers, specialists, or professional school staff experienced more problems (Tomsik et al, 2020).

An extensive survey conducted by the Institute for Public Affairs (Velšic, 2021) drew attention to the problem of social isolation of children. From the parent's point of view, social isolation appeared to be the most significant in children at the 2nd stage of primary school. Among other problems, parents mentioned the lack of extracurricular activities (74% of parents), hobby activities, competitions, etc. as a big problem. 75% of the respondents stated sitting in front of a TV, smartphone, computer, tablet, and playing games on social networks as a problem. 69% of parents stated the absence of personal contact with the teacher as a big problem, 68% of parents stated the loss of habits such as a change in the child's daily routine, the regularity of getting up etc. as a problem, 60% of parents perceived the reluctance to learn and postponing learning to a later time as a problem, and 57% of parents also perceived problems related to the lack of exercise and health related problems (loss of fitness, headaches, weight gain, etc.). It turns out that perceptions of distance education problems differ due to the social environment. Parents with one child perceive the problems of distance education to a greater extent than parents with two or more children, as well as did parents from church, private, special, language and art schools compared to parents of children from state and general schools (Velšič, 2021).

From a pedagogical point of view, especially in the first phase of distance education, there was a problem with the number and difficulty of tasks assigned by teachers. It turned out to be necessary to reduce the curriculum, but also to reduce the complexity of the tasks. From a pedagogical point of view, in connection with distance education, the problem of adequate and

objective feedback and evaluation has also become more acute (Hašková, Havettová & Vogelová, 2020). Grading was stopped in primary schools and pupils could not fail. The Ministry of Education recommended that teachers use verbal assessment at the end of the school year, or verbal assessment in combination with a mark.

In particular, the impact of the pandemic on the education and social skills of children and young people is proving to be negative. In the long run, the impact of the pandemic on their future economic situation is expected to also be negative. According to Hellebrandt (2020), due to the closure of schools during the first wave of the pandemic in Slovakia, the future salary of pupils will decrease by 0.3 to 0.9% during their entire working life. An extensive survey on distance education during and after the pandemic is currently being carried out by the Methodological and Pedagogical Center as part of the national project Professional Development of Teachers (TEACHERS). Its results are not yet known.

The mentioned problems concern all pupils, but the differences were more acute especially in the socio-economically weaker region of Eastern Slovakia.

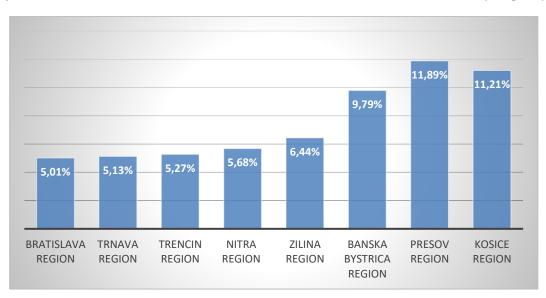
# 4. Characteristics of the selected region, including an overview of the economic situation in Slovakia: Eastern Slovakia)

### 4.1 Economic situation in the specified region

Eastern Slovakia is one of the lagging regions of Slovakia. It covers an area of 15,729 km2, which is about 32% of the whole of Slovakia. Almost a third of the population of Slovakia lives here. Administratively, it is divided into the Prešov and Košice self-governing regions. The biggest problems in eastern Slovakia are the unemployment rate, employment itself – lack of opportunities, population incomes, labor productivity, participation rate in early childhood education, R&D intensity and the gross domestic product (the lowest level of GDP per capita is in eastern Slovakia).

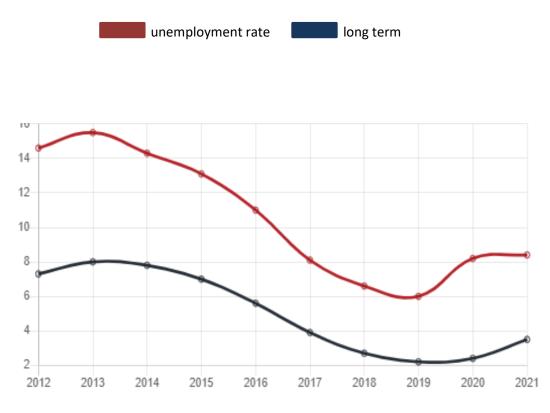
### Unemployment rate

According to current data, the unemployment rate in Slovakia is 7,76%. The highest rate of unemployment is in eastern Slovakia. Banská Bystrica, Košice and Prešov regions have the highest unemployment rates for a long time. There have been significant long-term differences between individual regions. While in the Bratislava region the registered unemployment rate is 5.01%, in Prešov it is 11.89% and in Košice it is 11.21% (Graph 5).



Graph 5. Unemployment rate in Slovakia by region (June 2021) (Source: Central Office of Labour, Social Affairs and Family, 2021)

Long-term unemployment is also a problem in Eastern Slovakia. It has negative consequences in the form of increasing the costs of maintaining the income of the long-term unemployed, the funds spent on their retraining, it is a frequent reason for social exclusion and associated other negative consequences. The average level of long-term unemployment in Slovakia in the first quarter of 2021 was 3.6%. While in the Bratislava region the long-term unemployment in 2019 was at the level of 0.8% and within Western Slovakia at the level of 2.1%, in Eastern Slovakia it was 5.6% (Employment Institute, 2021a; 2021b). The development of the unemployment rate and long-term unemployment of the economically active population since 2012 is illustrated in Graph 6.



Graph 6. Development of the unemployment rate in Slovakia (Source: Employment Institute. Regions in Slovakia, 2021b)

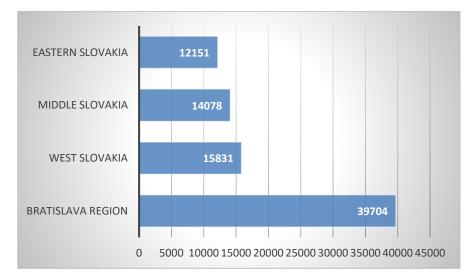
#### Employment and income of the population

An important indicator of the labor market, but also of the overall wealth of the country, is employment. According to the Labor Force Survey, employment fell by 4.8% year on year in the first quarter of 2021, and the employment rate fell to 73% compared with the first quarter of 2020. Employment, as well as the employment rate, decreased year-on-year in all regions of Slovakia. The lowest level of employment was in the regions of eastern Slovakia - in the Prešov region (67.4%) and the Košice region (66.3%) (Statistical Office of the Slovak Republic, 2021d). As Angelovič and Benč (2014, p. 88) state, high unemployment associated with high long-term unemployment, low employment and its slow growth are again concentrated mainly in eastern Slovakia, which means that the worst situation on the labor market is in this region.

An important factor influencing the quality of life of the population is also the income of the population. The average monthly nominal wage reached the value of EUR 1,124 in the first quarter of 2021, increasing by 3.5% year-on-year. The average nominal monthly wage grew in all regions, with the highest relative increase in the Košice Region by 6% and in the Trenčín Region by 4%. The lowest wage has for a long time been in the Prešov region (866 EUR) (Statistical Office of the Slovak Republic, 2021b).

#### Gross domestic product

GDP per capita in Slovakia currently represents 74% of the EU average. The average GDP per capita in Slovakia in 2019 was 17,212 EUR. This economic indicator, which reflects the performance of the economy and the living standards of the population, also shows significant differences between the individual regions of Slovakia (Graph 7). The lowest level of GDP per capita has been recorded in eastern Slovakia.



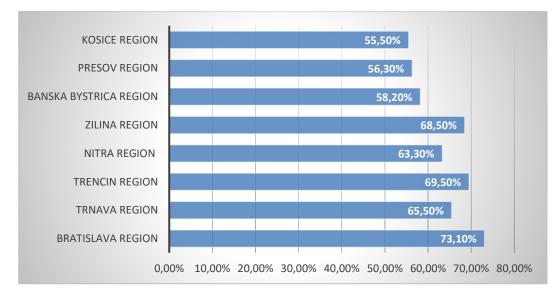
Graph 7. GDP per capita by regions (Source: Statistical Office of SR, 2021c)

#### Education

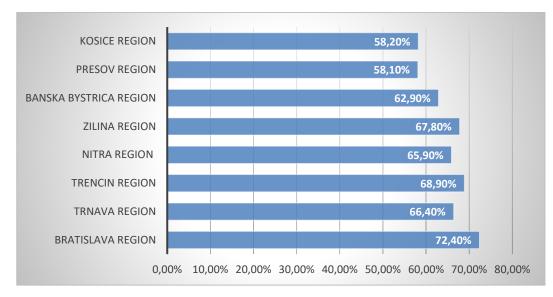
The results of PISA 2018 show a low level of reading and science literacy of Slovak pupils (below the OECD average). The results of pupils in eastern Slovakia are also particularly problematic in this respect. In mathematical literacy, the results of the last measurements were slightly better than the previous ones, with Slovak students having reached the average of OECD countries. According to TIMSS 2019 measurements, the results in mathematics and natural sciences also improved in the 4th grade of primary school, but the result is still statistically significantly lower than the EU and OECD average (TIMSS 2019, 2020). The PISA 2018 measurements also showed that socio-economic status plays a significant role in the performance of Slovak pupils. The high level of such dependence indicates that the education system does not provide all students with equal opportunities. In Slovakia, the ECS index can explain up to 17.5% of the variance of the output, but on average in OECD countries it is approximately 12.5% (PISA 2018, 2019, p. 55).

The international study PIRLS also points to significant differences in student achievement with respect to socioeconomic status. Although, the average performance of pupils from the last measurement remains unchanged (approximately at the level of EU countries, below the OECD average), the performance of pupils from families with fewer resources decreased significantly in 2016 compared to 2011. In this category, Slovak students achieve the lowest performance among all EU / OECD countries (PIRLS 2016, 2017). In the field of computer and information literacy, the international study ICILS 2013 revealed that Slovak students achieve significantly higher results than the EU and OECD average. However, students' results are influenced by individual aspects (gender, socio-economic background, etc.) and the domestic environment, similar to other international studies (Study results, 2014).

The results of national tests are not flattering either and reflect more significant regional differences. All-Slovak testing of 5th and 9th grade students (Testing 5, 2019; Testing 9, 2019) revealed the average success rate of mathematics students to be 63.4% for fifth graders and 63.1% for ninth graders. In the case of the Slovak language and literature, the average success rate of fifth graders was at 64.8%, and for ninth graders at 62.3%. The tests also showed significant regional differences. In Testing 5 2019 from mathematics, the most successful students were from the Bratislava region and the least successful students from the Košice region. 4.2% of pupils from the socially disadvantaged environment took part in Testing 5 2019 mathematics, their average success rate was 19.8%. Pupils without social disadvantage achieved an average success rate of 65.4%. For Testing 5 2019, the most successful students in Slovak language and literature were in the Bratislava region and the least success rate of pupils from the socially disadvantage and literature were in the Bratislava region and the least successful students in the Prešov region (Graph 8, 9). The average success rate of pupils from the socially disadvantage devironment was 24.4% and for pupils without social disadvantage it was 66.4% (Testing 2019, 2021).



Graph 8. Testing 5 2019. Average success in the math test (Source: Testing 5, 2021)



Graph 9. Testing 5 2019. Average success in the test from Slovak language and literature

#### (Source: Testing 5, 2021)

From the above-mentioned data, a significant lag of eastern Slovakia compared to other regions of Slovakia is noticeable. This fact is also pointed out in the EU Report on Slovakia from 2020, which states that Slovakia has a standard of living lower than the EU average. The lower standard of living manifests itself especially in the region of Eastern Slovakia, namely in such indicators as labor productivity, the rate of participation in early childhood education, and the intensity of research and development (Table 2).

#### 4.2 Description of the region's peripheral areas

The region of Eastern Slovakia consists of the Prešov and Košice self-governing regions. Both regions, but especially Prešov region with its peripheral rural areas, belong to the most developmentally lagging parts of Slovakia.

The Prešov self-governing region, as an administrative part of Eastern Slovakia, covers the north-east of the Slovak Republic with an area of 8974 km2, i.e. it occupies 18.3% of the Slovakia's area and has 826,244 inhabitants (Špilka, 2020, p.4). It is the second largest region in the state. The majority of its territory is covered by rural areas. Especially problematic are settlements in the peripheral locations of the northern and northeastern part of the region (especially Stropkov, Medzilaborce, Snina) and areas with large Roma communities (Roma nationality represents 5.5% of the population of the Prešov region and has the largest representation in the whole of Slovakia).

The very low population density in these areas brings problems with the availability of services and job opportunities. More remote or smaller villages on the periphery are faced with a lack of job opportunities, with the departure of young and qualified people, the sustainability of services and economic activities is also limited and so are the transport connections in rural peripheral regions with larger population centers. Due to the lack of job opportunities, the inhabitants of the Prešov Region often move to other regions of the Slovak Republic or abroad. In 2019, the economically active population was 48.7% and the economic activity rate reached 59.3%. The employment rate rose slightly to 63.8% until 2019, while the

unemployment rate fell slightly to 10.1% in 2019, but was still the highest compared to other regions of Slovakia. The average monthly wage of 1024 EUR was the lowest in Slovakia (for comparison, in the Bratislava region, the value of the monthly wage is 1641 EUR) (Statistical Office of the Slovak Republic, 2021b). In terms of GDP generation, the Presov self-governing region is one of the less efficient regions of Slovakia, the GDP generated in the region represents 9.5% of GDP generated in Slovakia. In terms of per capita, it represents 63.1% of the level of national GDP per capita.

Indicator	Bratislava	Western	Middle	Eastern
	region	Slovakia	Slovakia	Slovakia
GDP per capita	175,5	68,64	59,58	51,79
2017 (EU-28=100, GDP-based				
indicator to the EU average -28)				
Labor productivity	74,21	47,67	44	46,24
2015 (EU-28=100, indicator based				
on gross value added per hour				
worked in € against the EU-28				
average)				
Participation rate in early	86,9	85,8	81,6	65,3
childhood education				
2017 (% share of children aged four				
to the age of compulsory primary				
education)				
Research and development	1,4	0,53	0,61	0,52
intensity				
2016 (%gross domestic				
expenditure on research and				
development (GERD) relative to				
GDP)				
Long - term unemployment rate	0,8	2,1	3,9	5,6
2019				

Table 2. Regional differences of selected indicators in Slovakia

(Adapted from: Slovakia Report 2020; Employment Institute, 2021a; 2021b)

Education is represented by a relatively wide network of school facilities. In 2020, there were 538 kindergartens, 14 special kindergartens, 392 primary schools, 44 special primary schools, 12 special schools at medical facilities, 38 grammar schools and secondary sports

schools and 67 secondary vocational schools, 1 conservatory, and 45 special secondary schools. The Prešov Region is home to the University of Prešov (with eight faculties) and the University of International Business ISM Slovakia. According to the 2011 census, the university-educated population of the Prešov Region accounted for 11.7% of the total number of permanent residents of the region with the highest share in the Humenné and Prešov districts. The districts with the lowest number of university graduates included the districts of Kežmarok, Sabinov and Vranov nad Topl'ou.

According to the last census, the secondary education population accounted for 27.5% of the total number of permanent residents of Prešov. The share of the population with the lowest basic education was at the level of 17% (the highest number of inhabitants with basic education were in the Kežmarok and Sabinov districts). The analysis of population development shows that the number of pupils ceasing their education in the 9th year of primary school has been increasing slightly in the Prešov Region since 2019, and an increase is expected mainly in the years 2020 - 2026. It is believed that the change is attributed to the structure of students due to a significant increase of students from marginalized communities, who should account for around 37% of students, but their share in secondary education represents only 14% of students. It is assumed that there will be demographic changes caused by the moving of the majority of the population from the eastern districts of the Prešov self-governing region to the west of the country (Regional Strategy, 2020).

The problem, present not only in the field of education, is the relatively low level of internet connection availability among residents. In 2019, 81.3% of households in the Prešov region were connected to the Internet. Another problem of education, not only at the present time, is the availability of necessary technology, which is again the lowest for children from poor households and Roma children.

Leisure facilities are important in terms of the upbringing and education of children and youth. In 2020, 425 school clubs for children, 3 language schools, 65 primary art schools, 103 leisure centers, and 37 school dormitories (youth homes) were registered in the Prešov self-governing region.

There are also non-governmental organizations in the region that are engaged in various activities. In the field of youth work, an important non-governmental organization is the Youth Council of the Prešov Region (RMPK), which forms a network of civic associations of children and youth, non-profit organizations, student school boards and informal youth groups in the Prešov self-governing region. Several organizations perform their activities under the coordination of the RMPK - PSK Secondary Parliament, eRko - Movement of Christian Communities of Children (more than 7000 members), Brotherhood of Orthodox Youth - Syndesmos, Association of Salesian Youth DOMKA in Prešov and Sabinov, Association of Christian Youth Communities (8403 members, 259 communities, 23 regional centers), Laura - association of young people in Humenné, Club Explorer - Pathfinder (civic association of scout type), civic association Different in Bardejov, Youth Parliament in Kežmarok, Prešov in action - housing festival of sports and art.

There are also various humanitarian organizations and foundations in the Prešov region. There are approximately 11 such organizations in Prešov self-governing region in cities such as Bardejov, Humenné, Poprad, Prešov, Snina, Svidník, Svit. There are approximately 35 nonprofit organizations in Bardejov, Kežmarok, Levoča, Medzilaborce, Poprad, Prešov, Sabinov, Stará Ľubovňa Stropkov, Vranov nad Topľou. There are also approximately 48 civic associations whose activities focus on enhancing culture, education and science in the towns of Bardejov, Kežmarok, Levoča, Poprad, Prešov, Sabinov, Snina, Stará Ľubovňa Svidník, Vranov nad Topl'ou.Additionally, interest associations and associations for children and youth, such as leisure centers, children's camp sections and associations, Christian organizations, scouts, and other interest groups exist in the towns of Bardejov, Humenné, Kežmarok, Levoča, Medzilaborce, Poprad, Prešov, Sabinov, Snina, Stará Ľubovňa Svidník, Vranov nad Topľou. Lastly, there are sports clubs and other organizations whose goal is to offer activities for children and youth or help them in solving various life situations. People in need, a nongovernment organization, offers such activities and operates community centers (as part of Social integration) in two villages in the district of Prešov (Petrovany and Kojatice), in one village in the district of Levoča (Roškovany), and one village in the district of Bardejov (Sveržov).

Also significant is the activity of the non-profit organization Carpathian Foundation, which operates mainly in the Prešov and Košice self-governing regions. The goal of the organization is to improve the quality of life of people in eastern Slovakia. The Foundation supports initiatives in local and Roma communities, cooperation of individuals and organizations, non-formal education, and development of civil society (Carpathian Foundation, 2021).

The educational non-governmental organization EduRoma has its branch in Prešov. The organization's vision is an inclusive society, ensuring quality education for Roma children and support for their school success. There is also a civic association ROMAR - Roma Alternative Solution, whose mission is to provide comprehensive social and community services, and a non-profit organization Roma Institute, which runs the Community Center in Prešov. The civic association ETP Slovakia has its community center in Stará Ľubovňa - Podsadek, where about 1,200 Roma live in the segregated settlement of Podsadek (about 2,200 Roma live in the town). The community center in Podsadek offers the inhabitants of the settlement a meaningful way to spend their free time and learn. In Vranov nad Topl'ou there is a Cultural Educational Organization Roma - East, and in Snina there is the Roma Center Ternipen.

5. Recommendations concerning the support of regional institutions in counteracting the phenomenon of exclusion during any pandemic.

Name and type of	Registered	Brief description of the institution (areas of
institution (public / NGO / commercial)	office address, including region	activity, history, etc.)
Association for Culture, Education and Communication (ACEC)	Hurbanovo námestie 5 811 03 Bratislava	ACEC has been operating since 1999 and its mission is to build understanding, promote cultural exchange, and deepen education and communication. It is a non-governmental organization whose projects focus primarily on civil society, international cultural exchange, communication, social affairs and education. Since 2002, it has also focused on social and educational activities with socially excluded groups. Above all, it focuses on the inhabitants of Roma settlements and the implementation of educational programs in these communities (ACEC, 2016).
Volunteer Center	Komenského 21 974 01 Banská Bystrica	The Volunteer Center is a non-profit organization that was originally established in 2000 as a civic association in Banská Bystrica. However, it expanded its activities to other places not only in the Banská Bystrica region. The goal of the organization is to develop people's potential and improve the quality of life through volunteering, to raise the interest of people and organizations in volunteering, to attract people for active volunteering, and to create volunteer opportunities. The activities of the organization also include education and supervision in the field of volunteering, research in the field of volunteering, implementation of its own programs and projects, cooperation with national and international organizations in the field of volunteering, etc. (Volunteer Center, 2021).
Center for Research on Ethnicity and Culture CVEK	Špitálska 10 811 08 Bratislava	The Center is a non-governmental organization, with its research, educational and analytical activities focused on creating a fairer and more cohesive society. It was established in 2005 in Bratislava. Its activities focus mainly on ethnic, linguistic and religious minorities. It focuses on the inclusion of marginalized groups (Roma, migrants, but also other minorities). Thematically, it focuses mainly on education, housing, social situation, interethnic relations, and political participation (CVEK, 2021).
People in need	Baštová 343/5 811 03 Bratislava	A non-governmental non-profit organization founded in 1999 by a group of journalists with the initial mission of humanitarian aid. In addition, the organization is engaged in long-term projects of development cooperation, promotion of human rights and global education. Since 2016, it has also been working on the social integration of people whose poverty has pushed them to the edge of

5.1 Characteristics of potential institutional recipients

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
		society. It is engaged in educational activities and works in excluded communities to build an open, tolerant and inclusive society. The organization is also part of the international People in Need network (People in need, 2020).
ETP Slovakia - Center for Sustainable Development	Tajovského 1 040 01 Košice	ETP Slovakia is a non-governmental organization whose mission is to support regional development, environmental protection and assistance in developing the social, economic, educational and cultural potential of individuals, organizations, and communities with an emphasis on disadvantaged regions, socially disadvantaged groups, and ethnic minorities. Since 2001, the center has established several community centers. Since 2009 ETP Slovakia has been engaged in pre-school preparation of children in community centers with a focus on the practical preparation of children before entering primary school. As part of the mentoring program Capable Children, ETP Slovakia provides assistance and support in education in primary and secondary schools to selected children from marginalized Roma communities in order to improve their school success and employment. It also works with young people, developing their competencies needed for life and work. Through a micro-loan program, it improves the quality of housing for disadvantaged people and provides social and humanitarian assistance to elderly Roma (ETP Slovakia, 2018).
Carpathian Foundation	Letná 27 040 01 Košice	A regional non-profit organization that operates mainly in eastern Slovakia. It was founded in 1994 and its goal is to improve life in eastern Slovakia. It is a member of the International Carpathian Foundation Network and Transnational Giving Europe. Since 2017, it has been a member of the Eastern Partnership Civil Society Forum. It provides financial support, education and counseling for people and organizations to support a better and fuller life in eastern Slovakia. To fulfill its goals, it uses: grant programs (financial support aimed at community development, education and assistance to vulnerable groups); non-formal education program; surveys, trainings, training meetings; development of donations and volunteering; cross- border and international cooperation for the benefit of the region, etc. (Carpathian Foundation, 2018).
Center for Environmental and Ethical Education Živica - CEEV Živica	Budková 22 811 04 Bratislava	Since its founding in 2017, the Živica civic association has been implementing various courses for students and teachers in the field of education and environmental protection. It works in Zaježová, Bratislava and Zvolen (Živica, 2020).

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
Faculty of Humanities and Natural Sciences, University of Prešov in Prešov	Ul. 17.novembra 1 080 01 Prešov	FHPV is a part of the Public University of Prešov in Prešov. The faculty was established as a part of PU by the division of UPJŠ in Košice on January 1, 1997. The faculty provides teaching and non-teaching study programs. It includes the Department of Pedagogy, Andragogy and Psychology, which guarantees the general basis of the study of teaching for the second stage of primary and secondary schools. It also provides education in non-teaching study programs of social pedagogy and education. The Department for Education in Professional Development and Attestation is a part of the institute.
MPC Methodological and pedagogical center	Ševčenkova 11 850 05 Bratislava	Budget organization of the Ministry of Education, Science, Research and Sport of the Slovak Republic, whose General Directorate is based in Bratislava. Through its offices in Bratislava, Trnava, Trenčín, Nitra, Komárno, Banská Bystrica, Žilina, Prešov and Košice, it provides education and certification for pedagogical and professional employees of regional education. In accordance with the needs of regional education, it also provides counseling and professional and methodological assistance. It also implements projects at the national and international level. The MPC in Prešov includes a special workplace with the nationwide scope of ROCEPO focused on the education of pupils with SZP (MPC, 2021).
Faculty of Education UK Bratislava	Račianska 59 813 34 Bratislava	The Faculty of Education is a public higher education institution. It is one of the largest pedagogical faculties in Slovakia, and was established in 1946. The Faculty prepares pedagogical staff (teachers and educators) for preschool facilities, primary and secondary schools, experts for the departments of education, labor and social affairs and health care, and teachers and educators for all types of special schools and facilities in Slovakia An important part of the offered study programs are non-teaching specializations such as speech therapy, social work, psychological and career counseling for individuals with disabilities, special pedagogy, medical pedagogy, education and social pedagogy, foreign languages and cultures. The faculty offers all three levels of university study, as well as various educational opportunities for pedagogical staff (Faculty of Education, Charles University in Bratislava, 2021).
Faculty of Education UKF v Nitre	Dražovská 4 949 74 Nitra	The Faculty of Education is one of the oldest parts of the public university - the University of Constantine the Philosopher in Nitra. It gradually grew from the original Pedagogical Institute.

Name and type of institution (public /	Registered office address,	Brief description of the institution (areas of activity, history, etc.)
NGO / commercial)	including	
Faculty of Education UMB v Banskej Bystrici	region Ružová 13 974 11 Banská Bystrica	The Faculty of Education was founded on September 1st, 1964, and in July 1992, it became part of Matej Bel University, which operates as a public university. The scientific-research activity of the faculty is focused on basic and applied research in the following priority areas: - the challenges of the 21st century in the field of education for children, young people and adults; - the social, ethical, artistic and spiritual dimension of the development of the individual and society, civic engagement and social responsibility; - psychological aspects of education and quality of life; - professionalism and professional development of teachers and schools as institutions. PF UMB provides study in accredited study programs of the 1st, 2nd and 3rd degree of university study. The faculty also guarantees and provides a common basis for teacher education programs throughout the university. The employment of graduates is mainly in the following professions: kindergarten, primary, secondary, university teacher, educator, leisure animator, social pedagogue, social worker, psychologist, youth worker, adult educator, cultural and educational worker, human resources development worker, counselor, theologian, missionary. PF UMB actively cooperates with schools, school facilities, as well as psychological, social and church organizations and institutions in the field of implementation of professional practice of students, as well as the organization of joint events, project implementation and publishing. PF UMB also hosts and provides room for the activities of professional organizations. On the premises of PF UMB there is the Association of Social Educators and the Association of Social Educators and the Association of Educators in Social Work. PF UMB is a professional partner of the Comenius Institute project, which is implemented by the civic association Źivica. In 2018, the Faculty of Education of the MBU awarded the Perceptive School award to Eduma.
		PF UMB is actively involved in the development of communities, and the region, in solving local and societal problems. PF UMB contributes to the development of civil society through the implementation of service learning strategy, linking formal and non-formal education, supporting voluntary activities of students and cooperation with public administration, self-government and non-

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
		governmental organizations (Faculty of
		Education, MBU, 2018).
Faculty of Education, University of Prešov in Prešov	Ul. 17. novembra č. 15 080 01 Prešov	The Faculty of Education is a public higher education institution preparing bachelor's degree students as future pedagogical employees in kindergartens and school clubs; as experts in the field of compensatory pre-primary and primary education of children from low stimulating social and cultural backgrounds; as educators for special educational facilities, medical facilities, social care facilities, juvenile and pedagogical staff facilities, and for work with children and young people with special educational needs, with an emphasis on children and young people with mental and psychosocial disabilities. Graduates of the master's degree programs will be employed as teachers at the level of primary education (1st level of primary school); methodologists for primary education; management and organizational staff in kindergartens; methodologists and researchers in kindergartens and special kindergartens, teachers of special primary schools, vocational schools, and practical schools, teachers and professional staff in primary schools at diagnostic and reeducation centers, medical and educational sanatoriums or in other schools and institutions for children and young people with mental and psychosocial disabilities; professional staff in school facilities of educational counseling and provention (Scholtz, 2021)
		prevention (Scholtz, 2021).
Faculty of Education of the Trnava University in Trnava		The Faculty of Education of the University of Trnava started its operation in 1992. It is one of the five faculties of the University of Trnava and is the only one to provide teacher education for primary and secondary school teachers. From non-teaching study programs, it offers the study of social pedagogy and education.
ROCEPO - Roma Education Center Prešov	Ulica Tarasa Ševčenka 11 080 20 Prešov	Regional workplace of the MPC in Prešov with a nationwide scope. The workplace was established in 2001 in accordance with the Phare project SR-9905- 02 tolerance program for minorities to improve their position in society (with special regard and considering the specifics, needs and conditions of the Roma minority). It is an educational, information, documentation, counseling and consulting center for Roma. It implements educational programs for pedagogical staff working with pupils from the SZP.

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
Research Institute of Child Psychology and Pathopsychology	Cyprichova 42 831 05 Bratislava	VÚDPaP was established in 1963 by a resolution of the Presidency of the Slovak National Council with effect from the 1st of January 1964. The idea of establishing a workplace that would focus on psychological research of a child was promoted by doc. PhDr. Miroslav T. Bažány, who became its first director. From the beginning of its establishment, the institute worked in the education sector and until 1992 it was active for the whole of the then Czechoslovakia. The institute has about 50 employees who work in the departments of developmental psychology, child pathopsychology, social development and the center of scientific information. Since 1966, VÚDPaP has been publishing the professional journal Psychology and Pathopsychology of the Child. In 1989, the Ministry of Education of the Slovak Socialist Republic decided to abolish the institute, despite the protests of the scientific community and the professional public, and to connect it with the Pedagogical Research Institute. Thus, the Pedagogical and Psychological Research Institute was established. In 1990, the independence of the institute was restored by the Ministry of Education. The original tasks of the institute, which were activated in its first statute, included: research into the formation of the child's psyche, the social determination of the sproces; research on the psychological development of disabled children and children with learning and behavioral disorders; elaboration of basic theoretical issues of psychological educational care for children and youth and professional management of the Psychological Educational Line in Bratislava; gathering scientific information in the field of child psychology, pathopsychology, social pathology; development, and verification and standardization of psychologianostic methodologies. It was research in the field of psychologies that required the creation of an independent workplace, which today operates under the name of Psychodiagnostics. There was also a change in the case of the Psychological Educational Li

#### 5.2 Good practices during the SARS-COV-2 pandemic

The first wave of the pandemic in Slovakia has already shown how unprepared Slovak education is for distance education. At first, there was no assistance from the Ministry of Education. After the new government took office, the ministry began to implement the first measures to help teachers and schools, but it turned out to be more in cooperation with nongovernmental organizations than with state institutions.

#### Provision of services free of charge

Many civic associations, companies, IT companies, publishing houses, libraries and bookstores as well as artists reacted more flexibly to the crisis. They provided their services for free, made e-books available. Artists read to children at a distance, played in theaters, and dictated dictations.

#### Creation of support groups by teachers

The teachers themselves began to act immediately after the closure of schools, e.g. The Closed School group was formed, which started a discussion on how to learn at home, along with the Facebook group How to learn from home, Learning from home, etc.

#### Creation of TV programs for children

Radio and Television of Slovakia (RTVS) created a new program called the School club which was intended for all children, especially for those who did not have the opportunity to be educated via the internet. In April, a television broadcast for Roma children in the Roma language began in Tumenca khere – With you at home.

#### Launch of an online support platform

Several support platforms for e-learning were created during the pandemic. In cooperation with non-governmental organizations, the Ministry of Education launched the ucimenadialku.sk website with information on the possibilities of online teaching. The website contains several different supporting materials for teachers and parents and digital content of education.

#### Inspirational and educational webinars for teachers

Other support platforms include: Online Magic Teachers - Webinars for Teachers; webinars for teachers and IT Academy distance learning materials; Microsoft Teams for Online Education; ImO - Simple learning habits for kindergarten and elementary school children; VÚDPaP for teachers (Research Institute of Child Psychology and Pathopsychology provides e-mail support for pedagogical staff); Teacher training for online video production - ZMÚDRI; Green school from home; Sharing pedagogical experience with education in the home environment - EDULIENKA; Automatic feedback from students to the teacher - School Network.

#### Linking IT companies and digital content with schools

Connecting IT companies and digital content with schools - Digital Coalition; The Slovak Academy of Sciences educates schoolchildren (youtube channel of the SAV); International platform for online education – eTwinning (Mažgútová, 2021).

#### Tutoring children

Distance education has brought many problems for all families, but especially for families with children with ŠVVP, children from the SZP or marginalized Roma communities. Already in March 2020, during the first wave of the pandemic, the non-governmental organization EduRoma provided distance and personal tutoring of children from poor Roma communities. It developed and published specific basic procedures and rules for more effective distance education of Roma children from poor families. This was done in cooperation with the Roma Education Fund (REF) (for more details: Rafael, Vaněk, 2020).

#### Distribution of aids and packages

Their help (EduRoma and REF) was also provided in the form of distributing educational aids, but also hygiene packages to families who urgently needed such help.

#### Opening of grant programs

Quick help, especially for children and pupils from the socially disadvantaged groups, also came from the Carpathian Foundation. Already in April 2020 they opened the grant program School Despite Corona. The aim of the project was to support the ideas of non-governmental organizations, individuals, and schools from eastern Slovakia to help solve problems related to distance education during a pandemic. This rapid assistance was primarily intended to support the education of vulnerable or disadvantaged groups of the population with an emphasis on primary school pupils. Several projects focused on children with ŠVVP and children from SZP. To finance them, the Carpathian Foundation set up a crisis fund, to which it also contributed 5000 EUR, with additional funding provided by individual donors through an online collection method. A total of 14 projects were supported. Many of them were aimed at purchasing the technology necessary for online distance education.

#### SIM card distribution

SIM cards (1000 pieces) with data intended for online education were distributed to pupils from SZP and their teachers through the Carpathian Foundation and Slovak Telekom. According to the applicants' estimates, more than 4,000 children were allowed to continue their education even during the coronavirus crisis (Carpathian Foundation, 2021).

#### Peer to peer counseling

In cooperation with the non-governmental organization Platform of Families of Children with Disabilities and the Slovak Children's Foundation, the Inklulinka project was created. The project helps families of children with disabilities or ŠVVP. The project works on the basis of peer to peer counseling, not only during the coronavirus crisis. Any parent of a child with ŠVVP or a disability can turn to a parent from the Family Platform for advice and assistance.

# 5.3 Recommendations for changes to the national legislation to facilitate the implementation of remote education requirements in peripheral areas during a pandemic

The current situation has pointed to significant problems of contemporary education in Slovakia. In addition to many negatives, the situation represents a chance to implement the changes that are necessary for a more effective education of all children. The approach to education during distance learning varies significantly and some children, especially from poor Roma families in eastern Slovakia, practically did not receive education at all. For a coordinated and unified approach, the necessary changes need to be guaranteed and supported by legislative measures by the state.

IVP formulates the following recommendations:

- To ensure the possibility of contact teaching for children with special needs in case their specific needs do not allow education in the home environment;
- To provide the ucimenadialku.sk portal as the central information channel of the Ministry of Education (necessary for the coherent communication of all competent bodies to guide the educational process and the formulation of guidelines for the selection of appropriate forms of distance learning according to the needs of pupils, taking into account the criteria of internet accessibility and parental support; guidelines for working with pupils who are entitled to specific support in education);
- To ensure the expenditure and delivery of hot meals in school canteens for all children based on the demand of legal representatives;
- Edit the content of education (its reduction is important, not just for the needs of distance education; note of authors);
- Prepare an amendment to the Education Act, in accordance with which the evaluation
  of all pupils during distance education will be in the form of written feedback (in
  connection with the evaluation and measurement of pupils' performance levels, this is
  proving to be the case even without national tests, which seem to be particularly
  ineffective, especially in the case of pupils with ŠVVP or Roma pupils from socially
  disadvantaged backgrounds; note of authors);
- To adopt a government resolution defining professions and various life situations or other circumstances that will be covered by the right to the provision of care and support in education even during distance learning (Teachers as well as educators, volunteers from pedagogical schools, faculties and the like should be involved in providing support);
- Prepare a set of additional compensatory measures to mitigate the effects of school closures on the education of vulnerable groups of children (summer schools, mentoring and tutoring support (Bednárik et al., 2020, p. 12 – 23).

## 5.4 Recommendations for the implementation of good practices aimed at counteracting social and educational exclusion of pupils and students (and their families) without, or with limited access to, the Internet and digital equipment

Surveys conducted in Slovakia pointed out, among other things, the problems of distance learning among pupils and families with problematic access to the Internet and the absence of the necessary digital equipment. These were mainly students from marginalized Roma communities. It seems necessary to find ways to educate these children in person. Based on a survey conducted by the Institute of Educational Policy (Ostretágová & Čokyňa, 2020), the Ministry of Education, Youth and Sports of the Slovak Republic adopted the following measures to support full-time teaching for selected groups of children / pupils: to provide alternative full-time teaching opportunities for the most vulnerable groups of pupils, even in cases of school closure and / or compulsory quarantine (in the case of epidemiological risk and with sufficient support for the application of hygiene measures; e.g personal training in children's homes or alternative areas), e.g., in community centers, cultural centers. It is necessary to create manuals based on which schools, founders, and affected municipalities will be able to provide full-time teaching in alternative premises and allocate additional resources that are necessary to ensure such operation (Ostretágová & Čokyňa, 2020, p. 6, 7).

In practice, however, cases are considered where alternative forms of full-time teaching are not possible. In such situations, the Ministry of Education recommends implementing additional measures to ensure more effective offline teaching and contact of teachers with students: Schools need to be clearly notified that they have a duty to involve pupils without access to online learning, at least by the combination of the dissemination of worksheets and through telephone contact with pupils:

- Schools need to be given the conditions for teachers to be able to maintain telephone contact with these pupils (to provide facilities and free unlimited calls for both teachers and pupils, to ensure coordination with the field, community, and other general staff in obtaining pupils' telephone numbers, and work with them).
- Support the printing of worksheets by providing additional funding; issue methodological guidance on the identification of persons responsible for the distribution and collection of worksheets.
- In case of a massive school closure, restart TV broadcasting and ensure that teachers are more intensively informed about how to use it to teach pupils without access to online and face-to-face teaching (Ostretágová & Čokyňa, 2020, p. 6, 7).

More specific measures were formulated by the IVP (Bednárik et al., 2020). In particular, IVP considers it important to ensure that pedagogical and professional staff, and also pupils, have access to the widest possible range of forms of distance learning and educational channels that meet the diverse needs and skills of children and pupils. The IVP drew attention to the need for various compensations available to children with ŠVVP or children without a favorable home background under normal circumstances, which, however, cannot be ensured within the framework of distance education in the home environment, thus violating their right to education.

It proposes the following measures:

- **Strengthen and expand television broadcasting**; align its content with the centrally regulated content of education; to supplement or extend television broadcasting by specific language variations.
- **Support online education**. To create a methodology of school self-evaluation focused on mapping the level of preconditions for the implementation of digital distance education (skills of teachers and students, hygienic standards in the household, etc.). To provide a free internet connection and free rental or supply of the necessary technology for teachers and students to have the conditions necessary for online education.
- Support telephone connections of teachers, students and other professional staff. Provide access to unlimited calls. To enable the use of school infrastructure for pedagogical and professional staff to implement telephone connections with students.
- Strengthen postal connections between pedagogical, professional staff and pupils. Ensure the possibility of using the school infrastructure to create, print, reproduce and distribute educational materials (e.g. worksheets) to students.
- **Strengthen the cooperation of important actors in education**. Strengthen the cooperation of schools, pedagogical and professional staff with field workers, community center staff, and volunteers.
- To enable full-time teaching of selected groups of children with precise conditions. Analyze and evaluate data on students to identify those who need to be provided with full-time teaching. Identify catchment facilities (schools or community centers) where it will be possible to provide contact teaching. Establish rules of attendance and organization of education in the case of full-time teaching and provide protective equipment.
- **Provide specific support and compensatory aids for children and pupils who are entitled to them**. Verify the availability of compensatory aids. Enable the procurement of compensatory aids through grants. Motivate disadvantaged children through coaching / mentoring so that they do not lose interest in teaching. Guarantee the provision of support in education for children with ŠVVP.
- Align the content of education with the needs of children and the everyday reality and complexity of tasks with the possibilities and potential of the child (Bednárik et al., 2020, p. 14 16).

In relation to the education of children from marginalized Roma communities, Rafael & Krejčíková (2020b) further recommend:

- After the crisis, compensate all pupils for their social deprivation by strengthening social learning in introductory classes or out-of-school activities to renew and strengthen relationships in peer groups (through the use of recreational vouchers, outdoor school stays, school educational trips, free access to the school club and for secondary school students, etc.);
- Strengthen compensatory tutoring for pupils through community centers or civic associations;
- Implement adaptive education, especially in relation to younger pupils from poor families;

- Strengthen the education of Roma children focused on working with computers, the Internet, teaching materials in the online space, but also on self-regulation of learning;
- Also focus on strengthening the computer literacy of parents of Roma children;
- To support and maintain cooperation and networking of teachers, field social workers, teaching assistants, social educators, workers in community centers, etc., and in this context also to support the idea of anchoring social work in the school environment;
- The crisis revealed the failure of the middle level of management of the school system in Slovakia and the negative consequences of fragmented key school competencies under the agendas of other ministries, which leads to the need to coordinate the activities of MPC, school authorities, and founders;
- To set up a distance learning center which would provide methodological assistance to teachers with needs for this form of education and prepare them for new challenges in education (Rafael & Krejčíková, 2020b)

# Glossary of abbreviations and terms used

ACEC	Association for Culture, Education and Communication
CEEV	Center for Environmental and Ethical Education
CVČ	Leisure center
CVEK	Center for Ethnicity and Culture Research
ECS	Index of social, economic and cultural status of the pupil
EÚ	European Union
EUR	Euro
FHPV	
	Faculty of Humanities and Natural Sciences
HDP ICILS	Gross domestic product
IKT	International Computer and Information Literacy Study
	Information and Communication Technologies
IT	Information technologies
IVO	Institute for Public Affairs
IVP	Institute of Educational Policy
MPC	Methodological and pedagogical center
MŠ MČURU Č CD	Kindergarten
MŠVVaŠ SR	Ministry of Education, Science, Research and Sports of the Slovak Republic
OECD	Organization for Economic Co-operation and Development
PF	Faculty of Education
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PSK	Prešov self-governing region
REF	Roma Education Fund
RMPK	Youth Council of the Prešov Region
ROCEPO	Roma Education Center Prešov
RTVS	Radio and television of Slovakia
SAV	Slovak Academy of Science
SOŠ	Secondary vocational school
SŠ	High school
ŞZP	Socially disadvantaged environment
ŠPÚ	State Pedagogical Institute
ŠVVP	Special educational needs
TIMSS	Trends in International Mathematics and Science Study
UK	Comenius University
UKF	University of Constantine Philosopher
UMB	Matej Bel University
UNESCO	United Nations Educational, Scientific and Cultural Organization
ÚPSVAR	Central Office of Labour, Social Affairs and Family
VŠ	University
VÚDPaP	Research Institute of Child Psychology and Pathopsychology
ZŠ	Primary school
ZUŠ	Art school
%	Percentage

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