



FACULTY
OF EDUCATION
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Desk research report in the project "Preventing post-COVID Social Exclusion Together"

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



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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 fourth 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 country they represent. The development of a partial analysis is a necessary stage for the implementation of further research activities undertaken in this project.

The documents have a similar structure, however, due to the specificity of the 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 Hungary.

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 a given 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 the selected country in the Visegrad Group should be considered peripheral regions and be considered as 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 Hungary. 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 Hungary 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 Northern Great Plain meets the criteria. The analysis included in the fourth part of the study allowed for the characterization of Northern Great Plain 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

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 of official statistics, reports, analyses, and scientific publications. The data which was used, inter alia, was data collected in: databases of Central Statistics Office in Hungary, information available on the government portal: <https://kormany.hu/> and on the portal EURYDICE (Education Information Networks in Europe), data from the Ministry of Human Resources, legal acts issued by the Hungarian government bodies, and scientific articles pertaining to the issues raised.

The 2020/21 school year was almost fully digital in higher education institutions and high schools due to the situation caused by the pandemic. Thus, both teachers and students had to adapt to the new situation and the digital skills of the teachers and instructors had to develop. The students also had to adapt; however, unfortunately, in some families, the barriers present in digital learning were not just the lack of digital skills but also the lack of an internet connection, digital tools, and of an appropriate space for learning. In conclusion, it can be clearly stated that social disadvantages could cause social exclusion. Beyond that, the lack of digital tools and competencies made it difficult to access education, and it was also a significant challenge for lower socio-economic families to adapt to the new situation caused by COVID-19.

Thus, it is clear that the epidemic has increased pre-existing social problems. However, the activities of non-governmental organizations, and the situation of the people they represent, became more visible, which was often reflected in an increase in donations and positive feedback. Mastering of online toolkits, which became necessary during the pandemic, has made it possible to reach new depths, so the toolkits will remain a part of the organizational work in the future. However, the means of exerting social pressure were significantly reduced during the quarantine, which made law enforcement much more difficult. In addition, it should not be forgotten that there are organizations whose activities could not be transferred to the online space, making their operation almost impossible.

The adverse effects of the epidemic on long-term education systems and the labor market situation of young people are addressed in a study by the European Economic Advisory Group (EEAG) entitled "*Lifecycles and Education: The Coronavirus Crisis Across Generations*". According to the study, in different countries, the return on investment in

education is typically around 9 percent per school year. One month of “dropped-out” education usually reduces the amount of subsequent monthly salary by 1 percent, so a key question is whether the effectiveness of distance learning has reached that of classroom instruction. Experience from previous economic crises shows that first-time entrants to the labor market, in general, can expect longer unemployment, lower starting wages and persistently unfavorable career prospects than younger or older generations (Asztalos, 2021; Hanushek & Woessmann, 2020).

At the same time, the coronavirus pandemic can have a positive effect on the educational situation of some individuals and the efficiency of the education system. With lower wage levels due to the economic downturn, there may be fewer dropouts in education, and job losses may force workers to return to school. The digital upswing forced by restrictions also offers many opportunities. Testing of new teaching and motivation methods is still ongoing. It is the responsibility of education policy and schools to incorporate methods that prove to be useful into their operating models. All this also offers opportunities to save costs and make high-quality education more widely available. It is worth investing in human capital, as it supports long-term sustainable economic growth and competitiveness (Asztalos, 2021).

1.3 Note about the authors

Dr. Karolina Eszter Kovács is an assistant lecturer at the University of Debrecen at the Institute of Psychology. She is a psychologist and has got her degree in Educational Sciences. She is the managing editor of Hungarian Educational Research Journal (HERJ) and assistant editor of Central European Journal of Educational Research (CEJER). She is also a member of the CHERD-Hungary, Digital Interactions Research Group and Research Group on Foreign Language Teaching Research Group. Her primary research area is related to health, sport and academic and non-academic achievement especially sport persistence.

Fruzsina Szabó is Lecturer at the Institute of English and American Studies at the University of Debrecen, Hungary, where she also completed her PhD. She teaches methodology, SLA courses and is involved in teacher training. Her research interests include classroom implications of motivation, language aptitude, translanguaging in low socio-economic environment, teacher identity and teacher well-being. She was a member of the Hungarian National Academy MTA-DE Research Group on Foreign Language Teaching that developed digital course-material for pupils from disadvantaged backgrounds (2016-2021). She is the author of various Hungarian and English articles, and co-editor of *Innovatív Oktatás*, a book on innovative education published in Hungary.

Krisztina Győri has graduated from Debrecen Reformed Theological University as a primary teacher. In 2021 she has graduated from the University of Debrecen, where she studied educational science. Currently, she began her study as a Doctor of Philosophy (PhD) in Education. Since 2019 she is a junior researcher at CHERD-Hungary study group. Her main research topic is emergency remote and distance learning.

Katalin Godó is teacher and mental health professional. Besides, she is a 3rd-year PhD student at the University of Debrecen, in the Doctoral Program on Educational Sciences. She is a member of the CHERD (The Center for Higher Education Research and Development) research group. Her primary research area is mentoring. She focuses mainly on mentoring programmes in primary schools. Her supervisor is Tímea Ceglédi PhD, a researcher of resilience and a senior lecturer at the University of Debrecen.

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

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

Schools and kindergartens are established and maintained by the state, local governments, minority local governments, legal entities (foundations, churches, etc.), and natural persons. About 90 percent of children attend public sector institutions (Eurydice, 2021). The Ministry of Human Capacities is responsible for education (besides culture, social affairs, health care, youth and sport). However, school-based vocational education (VET) and adult training belong to the Ministry for National Economy.

The official language of education is Hungarian; however, several ethnic and national minorities (e.g. German, Romanian, Slovenian, Serbian, Croatian) have minority educational institutions. In those institutions, the minority language is used as the first or second language of instruction in general and secondary education. Ensuring the provision of minority education, as well as school-based education, is the responsibility of the maintainer.

Structure of the National Education System

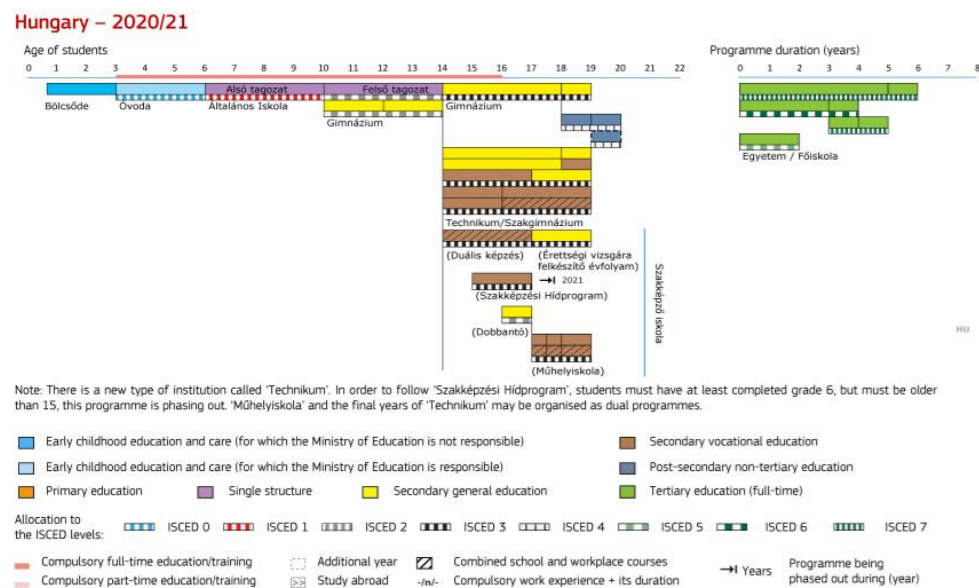


Figure 1. The structure of the Hungarian educational system (Source: Eurydice 2020/21)

Compulsory education starts with kindergarten at the age of 3. At six years of age, at the earliest, a child is tested whether he or she has reached the level of development required to enter school. Compulsory schooling lasts until the end of the school year in which a student reaches the age of 16.

Table 1. The types of institutions (Source: Eurydice)

Stage	Characteristics
Nursery	<ul style="list-style-type: none"> part of the basic care of child welfare, and primarily undertakes the day care, professional care, and upbringing of children aged 2 to 3 years
Kindergarten	<ul style="list-style-type: none"> provides institutional education for children aged 3-6 as part of full-time care compulsory from the age of three
Primary school	<ul style="list-style-type: none"> primary education is mainly provided in 8-year primary schools and provides a foundation for general education for 6 to 14-year-old pupils after that, students can continue their studies at an upper secondary institution (ISCED 3): grammar school, vocational grammar school, vocational secondary school
Grammar schools	<ul style="list-style-type: none"> this type provides general education, mostly for four years (but also six and eight-grade secondary grammar schools exist) and prepares students for graduation (school-leaving exam) Graduation is also required for admission to higher education institutions
Vocational grammar schools	<ul style="list-style-type: none"> this type organizes general and basic vocational education from 9th to 12th grade and prepares students for graduation (school-leaving exam) by completing the 12th grade, students can continue their studies in a vocational training grade
Vocational secondary schools	<ul style="list-style-type: none"> this type provides general and basic vocational training, and catch-up courses can also be organized for students who wish to join vocational training in the absence of a primary school education students can continue their studies after the vocational grades to pass the school leaving exam
Post-secondary education (adult education)	<ul style="list-style-type: none"> it takes place in the in-school and out-of-school sectors
Bachelor degree (BA / BSc)	<ul style="list-style-type: none"> the institutional system of higher education consists of public and non-public universities it usually covers a 6-8 semester training cycle
Master degree (MA / MSc)	<ul style="list-style-type: none"> a bachelor's degree is followed by a 2-4 semester training cycle leading to a master's degree in some areas, the training remained undivided (10-12 semesters), e.g. in the medical and legal sectors, which provide a master's degree after completing the final exams

Stage	Characteristics
Doctoral training (PhD)	<ul style="list-style-type: none"> • it is a four-year-long training, divided into two (two-year-long) sessions • the doctoral student receives his/her degree after passing a complex examination and the defense of the doctoral dissertation

The **National Core Curriculum** (Nemzeti Alaptanterv, NAT) is a basic document regulating the whole educational process which specifies the knowledge contents to be acquired, the skills to be developed, the abilities, and the educational goals for each field of education. The Government Decree 110/2012 (VI. 4) includes the following:

- areas of development, educational goals, tasks and values of the National Core Curriculum,
- the principles concerning the specific content and pedagogical tasks of school education and the overlapping of pedagogical activities between the school and other educational institutions that support the development of the pupils,
- the key competencies,
- the percentage of each field of education in the stages of school education defined in the National Core Curriculum, and
- the content of the areas of education.

The **Framework Curriculum** (kerettanterv) is built on the National Core Curriculum, and is an intermediate regulator between local curricula and the National Core Curriculum. The framework curricula of each pedagogical stage (2-year cycles) and school types determine the knowledge contents to be acquired, and the output requirements of the given 2-year learning cycle. 10% of the grade and subject hours are managed by the pedagogical community of a given institution. It determines:

- the goals of education,
- the system of the subjects,
- the topics and content of each subject,
- requirements of the subjects,
- tasks for the development of interdisciplinary knowledge and skills areas,
- the time frame available to meet the requirements.

At the lower system level, the **educational program** (pedagógiai program) is a system developed on the basis of a specific pedagogical concept. It helps to plan and organize education, enables the achievement of educational objectives set in the NCC and a given framework curriculum, and helps with processing of content elements, subjects, and one or more fields of education or pedagogical stages. At the lowest level, the **local curricula** (helyi tanterv) can be found. The basic requirement for local curricula is to comply with the framework curriculum and fill the available free timeframe with teaching and learning

content and activities that are typical of the school's profile. In a specified number of lessons, the goals of the institution's local curriculum can be achieved by adapting to the local needs and the community of a given class: this can be aimed at deepening and repeating the core material, choosing a formal framework curriculum or an optional subject, or even creating a new subject (Réti, 2015).

Regarding the evaluation of students, a teacher regularly evaluates a student's performance and progress during the school year with a grade at the end of the semester and the end of the school year. A student's behavior and diligence are assessed jointly by the class teacher and the teachers who teach in the classroom. The evaluation can be:

- excellent (5, 'jeles'), good (4, 'jó'), average (3, 'közepes'), sufficient (2, 'elégéges'), insufficient (1, 'elégtelen') in the assessment and qualification of the student's knowledge,
- exemplary (5, 'példás'), good (4, 'jó'), variable (3, 'változó'), bad (2, 'rossz') in the assessment and qualification of student behavior,
- exemplary (5, 'példás'), good (4, 'jó'), variable (3, 'változó'), careless (2, 'hanyag') in assessing and qualifying student diligence.

No grade is applied in the first grade at the end of the semester, at the end of the year in first grade, and at the end of the first semester in the second grade. Instead, it must be stated in a written qualification that the student has performed excellently, well, adequately, or needs additional development (Eurydice, 2020).

It must be mentioned that there are differences at the regional level in each institution and type of institution. The differences largely depend on whether the given area is characterized by economically advantageous or unfavorable conditions. There are also big differences in the ease of access to quality education in different parts and areas of the country (Gazsó, 1976). According to Herczeg (2014), the belonging of students to a given social status group, also known as their socio-economic background, has an effect on the performance and competitiveness of an institution (Herczeg 2014: 14). There is also a factor of geographical concentration, as it is well known that "students with the same socio-economic factors are geographically separated" (Herczeg, 2014, p. 14). The international PISA measurements also clearly point in the direction that the Hungarian education system is one where "the dispersion of performance due to the differences between the individual schools is the largest" (Széll 2018: 19, Balázsi & Horváth 2011; Balázsi et al. 2010, 2013; Csapó et al., 2009, Fehérvári & Széll 2014).

The largest amount of students is concentrated in primary education. According to preliminary data for the 2020/21 school year, 725768 students participate in primary school education (Central Statistics Office, 2021). Apparently, this is also due to the Compulsory Education Act (Act CXC of 2011 on National Public Education), according to which a child is required to attend school until the age of 16, regardless of his or her social disadvantages, place of residence, and family poverty rate. Primary schools do not fully map the proportion of disadvantaged and profoundly disadvantaged people in the

domestic population. Nonetheless, it is known that there is 29618 disadvantaged children in primary education (30,6% of the total sample of disadvantaged students) while the number of profoundly disadvantaged children in primary education is 36119 (39,2% of the total sample of profoundly disadvantaged students). Also, it is worth noting that **the incidence of the disadvantaged students is highest in primary education.**

In contrast to public education, the number of students in higher education increases as a result of expansion; however, **the disadvantaged are under-represented at universities and colleges** within the group of students admitted. The social openness of higher education is still an issue that concerns researchers (Ceglédi, 2015). There is also a debate among foreign researchers as to what extent the effect of family social status on admission to higher education institutions has decreased or whether it has decreased at all (Treiman, 1970; Goldthorpe & Erikson, 2002; Pusztai, 2015). According to Gázsó (2006), in any case, the mass demand for secondary education also automatically increased the “social permeability” of higher education (Gázsó, 2006: 218).

Obtaining a higher education degree is one of the ways to achieve social mobility, which also determines the competitiveness of a given country (KSH, 2005). A degree makes an individual “fit” to fill positions that are important to a given society, and not just to execute tasks that anyone can perform (Spéder, 2002, p. 20). The quality and degree of the qualification also determine the quality and prestige of the work to be performed and the salary range. Furthermore, those working in stable and unstable employment conditions can be distinguished on the basis of education (Spéder, 2002, p. 23). Parents’ employment and income make their mark on the present and future of the whole family. Thus, if a household enjoys prosperity, this is directly proportional to each of its members (including children), but of course this tendency is also valid in the opposite case (KSH, 2005: 83). Poverty is therefore **a household-specific “family characteristic”** that provides realistic data not only for a particular person, but for each member of an entire household. Zsuzsa Hegedűs mentions the 2009 CSO statistics, where out of the nearly 2 million (1,953,011) people under the age of 18 living in Hungary, a quarter of whom (445,201) belong to the category of disadvantaged people. He emphasizes that it should therefore be taken into account that **“there is always at least two hungry adults behind a hungry child”** (Hegedűs, 2011).

Furthermore, disadvantage is not independent of parents' educational attainment, as the qualifications of individuals are related to income poverty. In a survey conducted by the Hungarian Academy of Sciences, the authors emphasized that the lower the level of education, the more likely a child aged 0–5 or 0–17 in a given household is to be raised in poor conditions. “Approximately 45 per cent of children of parents with primary education (ISCED 0-2) live in income poverty, while for children with parents with secondary education (ISCED 3-4) and tertiary (ISCED 5-6) this proportion is 15-18 per cent and 7-8 percent ”(Hajdú et al., 2017, p. 18). Although in the past, working-class children had better chances of entering a university (50s, 70s) than today, this was also due to the fact that the number of places available in higher education was high compared

to high school output - however all this could be described as a temporary phenomenon (Ladányi, 1985; Ladányi et al., 1987). Today, this trend is not relevant. Moreover, the student body is three times larger in high schools today (Barakonyi, 2004), most of whom are unsuitable for higher education (Szabóné Kármán, 2010).

During university administrative admissions, the disadvantaged students are given extra points - thus increasing their chances of entry. But this kind of compensation is scarce when we consider that students entering higher education have **an unequal level of knowledge**, which is why the disadvantaged students are a particularly vulnerable target group at risk of dropping out (Pusztai, 2015). Many disadvantaged students don't even receive enough points to apply (this requires a high school diploma). In the case of the disadvantaged students, the relationship between the amount of resources and the achieved results is different. It can be observed that the social composition of the admitted students is still more homogeneous than heterogeneous in higher education, as a certain internal stratification characterizes this sector (Ladányi et al., 1987). Moreover, there is a kind of selection according to the faculties and specializations within universities and colleges, the so-called "Internal hierarchy" (Ladányi et al., 1987).

In contrast, in primary school, especially in lower grades, **start-up disadvantages are particularly pronounced**. As performance-based accountability takes place, "skills" and "performance" can still be shown to be primarily a function of start-up advantages and disadvantages "(Ladányi et al., 1987). According to Nagy (2008), differences in the development of students in the upper grades continues to increase (Széll, 2018, p. 19).

The level (low or high) of the prestige of primary schools is closely related to the social background indicators of the student body. The same is true for secondary schools where certain trends can be observed by the type of institution (secondary school vs. grammar school, or vocational school); so much that in grammar school the children of under-qualified parents are less represented than in vocational training. In the case of the latter, the chances of entering a university and further education are also reduced, as the graduates are attracted to the labor market after obtaining their qualifications. The long-term effects of early school selection are by no means conducive to students' later school careers and life chances (Gurzó & Horn, 2015). After all, these are the pre-filters, the so-called pre-application for higher education selection steps (Ceglédi, 2015) which often "sifts through" disadvantaged members of the student society.

The disadvantages of the disadvantaged group increase with advancing educational levels, as our school system is based on prior knowledge. The rate of primary school drop-out rate is lower than in secondary school or higher education, and **cumulative disadvantages are congested**. The disadvantages therefore only increase in direct proportion to the time spent in education.

In secondary education, the concentration of disadvantaged students accumulates even more strongly (Liskó 2002). The proportion of the disadvantaged students is the highest in vocational secondary schools (21.3%), while it is the lowest (1.2%) in 6th and

8th grade grammar schools (Hajdú et al. 2017, p. 18). **Disadvantaged students have a lower presence in secondary/GCSE courses.** Although, a high level of education would also be a guarantee that individuals would become active earners and employees instead of progressing further into poverty (Spéder, 2002, p.100).

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

The current education law (Act CXC of 2011 on National Public Education) was implemented in 2011 to renew Hungarian public education and public education tasks. The news of the recast has already been the subject of heated professional debates, with severe challenges shaped primarily by the changed social environment (Nagy, 2014).

The 229/2012 Government Regulation completes the Act on National Public Education. It also states that the public education information system is a database of electronic applications, data files, documentation operated by the Education Office serving official and professional activities, as well as a national statistical and authorization-based data provision system. It comprises professional systems, utilities, and subsystems that serve and support them, as well as applications used by the Minister responsible for education. This reflects well on the centralized attribute of the Hungarian educational system.

On January 1st of 2020, Act LXXX of 2019 on Vocational Education and Training was introduced. It fundamentally transforms the Hungarian vocational education and training system. Two main types of vocational training institutions can be found: the five or six-year vocational school preparing students for graduation and a vocational exam and the three-year vocational school preparing students for a profession.

Act LXXVII of 2013 on Adult Education declares that the management of adult education and training is divided within the government, similarly to the management system of vocational education, between the ministries. School-based adult education, including primary and secondary education, belongs to the State Secretariat for Public Education of the Ministry of Human Capacities. The Ministry of Innovation and Technology is responsible for vocational training activities and higher education in school-based adult education. Out-of-school adult education, including vocational and non-vocational training courses, is part of the Ministry of Innovation and Technology's State Secretariat for Knowledge- and Innovation Management. The available training courses are given in the Register of Vocational Occupations (former: National Vocational Qualification List).

The Act CCIV of 2011 on Higher Education declares the operation of the higher education system, which is the responsibility of the state, while the operation of the higher education institution is the maintainer's responsibility. The basic educational activities of a higher education institution include higher educational vocational training, undergraduate training, master's training, doctoral training and specialized training. Unless otherwise provided by this Act, the activity belonging to the basic activity of education may be carried out only by a higher education institution.

The acts defining a disadvantaged and profoundly disadvantaged situation should be emphasized, too. Disadvantaged children and young adults are entitled to a regular childcare allowance if one of the following conditions exist (Act XXXI of 1997 on Child Protection and Custody Administration):

(a) at the time of claiming the regular child-raising allowance, the highest level of education is primary education for both parents raising the child together, the parent raising the child alone, or the guardian.

(b) at the time of claiming the regular childcare allowance, any parent raising the child or guardian is

entitled to care for the active age under the Social Act (employment replacement allowance or regular social assistance) or registered as a job seeker for at least 12 months before claiming the regular childcare allowance.

(c) the child lives in a segregated living environment or, according to a home study recorded during the procedure, in a semi-comfortable, substandard or emergency house, or with living circumstances with limited conditions for healthy development.

Definition of the profoundly disadvantaged situation:

(a) the child entitled to the regular childcare allowance and an adult child who has at least two of the circumstances set out in points (a) to (c) above,

(b) a foster child,

(c) a young adult in aftercare and with student status.

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

3.1 The course of the pandemic in Hungary in [2020-2021]

The COVID-19 virus was detected in 2019. The new coronavirus (SARS-CoV-2), which is from Wuhan, China, has caused millions of deaths from acute respiratory infections or infectious complications. In February 2020, the virus was also identified in Italy, and then between 1st and 11th of March, the number of people in intensive care units reached 9-11% of those infected. The trend of an exponential increase in infections drew attention to the seriousness of the threat that COVID-19 poses (Remuzzi and Remuzzi, 2020). At the time of the writing of this paper, and according to Johns Hopkins University and Medicine's (2021) data, the confirmed Hungarian cases are at 811 517 and deaths are at 30 056.

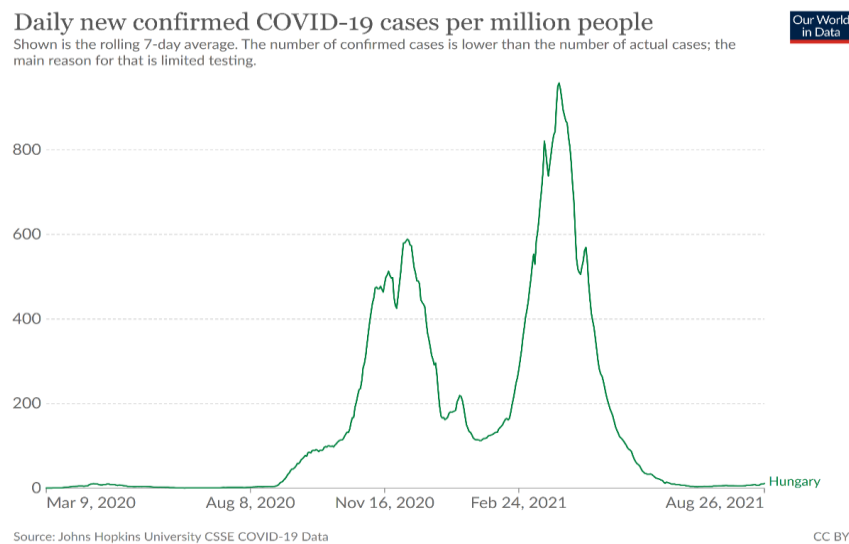


Figure 2. Daily new confirmed COVID-19 cases per million people (Source: Our World in Data)

In spring of 2020, the Hungarian reaction to the COVID-19 pandemic was rapid and confidential. In international comparison, Hungary was a positive case compared to other countries. The potential reasons behind the successful handling of the COVID-19 pandemic in Hungary are in contrast with its international ranking. The researcher emphasizes that Hungary benefits from its public health training, the reaction and incredibly fast acting of the government, and has a relatively well-developed laboratory system that is closely linked to the country's public health system. These factors were deliberately helpful in the process of treating the pandemic and bringing closer the opening up of the society. However, it is also important to note the concerns related to the political process (e.g. the early emptying of hospital beds and other questionable governmental responses) (Hajnal & Kovács, 2020; McKee, 2020).

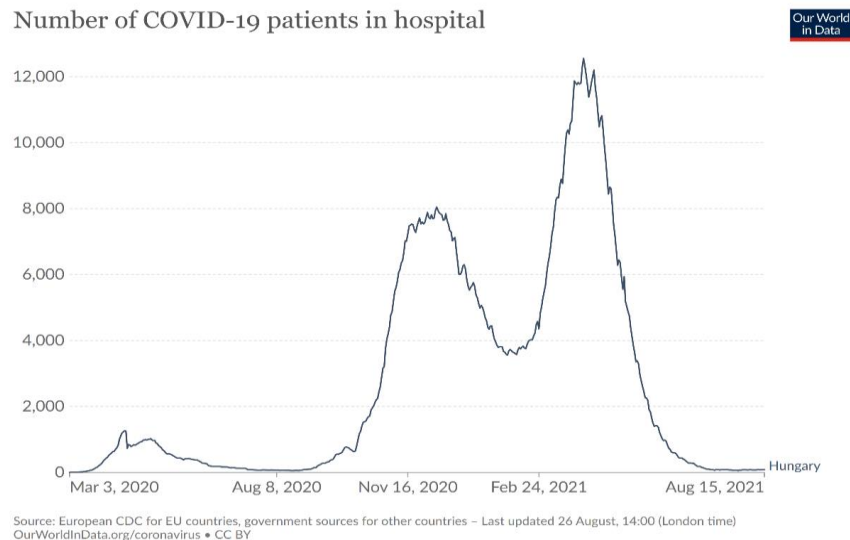


Figure 3. The number of Covid-19 patients in hospital (Source: Our World in Data)

3.2 Impact of the pandemic on the area of formal education [introduction of remote or hybrid education and its course (duration, age groups of pupils and students, etc.)]

Due to the rapid and global spread of the virus, educational institutions were closed at the suggestion of experts. The new digital agenda has been introduced, with which from April 1st to April 5th, exactly 1,598,099,008 students were affected according to UNESCO data. To deal with this new challenge, UNESCO offered several methodological tricks, tools, and educational software for educators, but this was not necessarily sufficient to ensure success. We know from the PISA results that there are significant differences in the availability of technology in schools and the teachers' digital competence within different countries (UNESCO, 2020).

In Hungary, the provisions were introduced on March 16th, 2020. The institutions primarily preferred the Public Education Electronic Administration System, but it has been overloaded in the first few days, thus teachers had to seek other ways to find solutions. The IT providers immediately made their education platforms free. In most schools, remote teaching had begun without major problems with just a 1 or 2 day delay. Overall, in Hungary, primary, lower secondary, and upper secondary education have been executed with online platforms, take-home packages, and television. In spring of 2020, the schools were fully closed because of the pandemic situation in Hungary. No adjustments had been made to the school calendar dates and curriculum due to the pandemic in the previous and current school year. Despite the quick response, the online teaching was not smooth (Prohászczik, 2020; OECD, 2021).

All of this culminated in the fact that whatever clever solutions were improvised, teachers could find the situation equally stressful, which undoubtedly affected the quality and effectiveness of education. Therefore, it can be stated that what was missing from the agenda was the careful consideration of the undertaken decisions (Hodges et al., 2020).

10th of November, 2020, marked the date of the second wave of the epidemic and thus higher education institutions and grades from the 9th grade onwards (which affected high schools and vocational schools) were fully closed. In February of 2021, it was deemed important by the Hungarian government to keep primary schools and kindergartens open as long as possible (OECD, 2021) (Figure 4.) while a determinant proportion of the pupils' parents had full-time jobs and they could not fully control their children's learning activities. On the other hand, another part of the parents, who were unemployed, had difficulties with organizing learning activities for their children (Szilveszter et al., 2021). On the 4th of March, 2021, because of the increase in the number of deaths caused by the coronavirus, the government decided that primary schools and kindergartens had to be closed from 8th of March until the 7th of April (Magyar Közlöny, 2021).

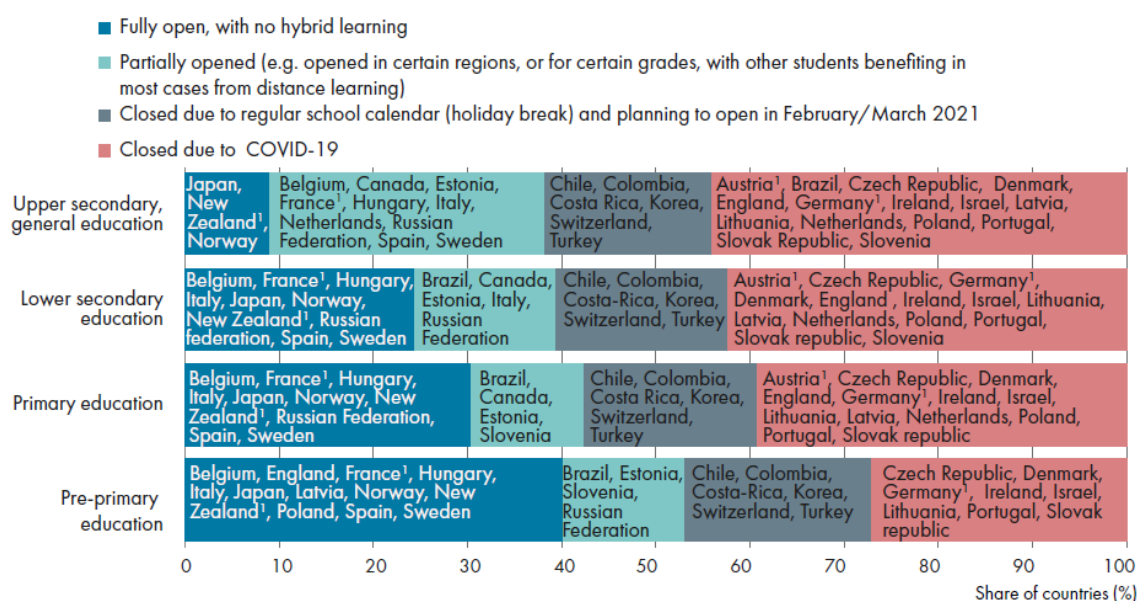


Figure 4. School closures as of 1st of February, 2021 (Source: OECD)

In summary, the 2020/21 school year was almost fully digital in higher education institutions and high schools. That means that teachers and students had no choice; they had to adapt to the and learn to handle the new situation. The digital skills of teachers and instructors had to improve, and they had to create a system for their students' learning activities and improvement of their digital skills. Unfortunately, in some families, it was not only the lack of digital skills that could have been perceived as a barrier for digital learning, but also the lack of an internet connection, digital tools, and a proper space for learning.

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

As digital education changed the location and conditions of learning, families had to create an environment conducive to learning. Attaining an environment that is suitable for learning is easier for families which are in a better socio-economic status. Therefore,

the main problem with remote teaching is the economically disadvantaged students' exclusion from education.

Firstly, the *personal conditions* were not appropriate everywhere. A part of Hungarian students does not have an internet connection or PC. One in five general students has no access to online education. This problem typically affects those who live in poor social conditions. Although, another part of the students has ITC tools that they do not use quickly and effectively. These students do not know how to write an email or create any digital products. Therefore, they could not participate effectively in online education (Hermann, 2020). Secondly, *the external and internal environment* is also a factor influencing the implementation of digital learning. Families in which learning is not seen as a value will not support their child's learning activities. This microenvironmental problem is in a significant connection with the socioeconomic status of families. In that case, if students' digital learning is supported by personal conditions and the external and internal environment, too, is still not enough, because digital learning is a *multidimensional process*. Extraction and application of information do not work without the students' and the teachers' cooperation (Prohászczik, 2020).

To determine how many students did not participate in remote teaching in Hungary required the investigation of the results of the National Assessment of Basic Competencies. The assessment was carried out every school year on the last Wednesday of May in all primary and secondary schools in Hungary in grades 6, 8 and 10. In this case, only the background questionnaire of the measurement was investigated. Hermann (2020) examined the result of the questionnaire and stated that 7% of students in grades 6, 8, and 10 were not participating in education, furthermore, 7-7% in grades 6 and 8 and 6% in grade 10 have very limited access to online education. Those who have the tools to take part in online education are dependent on the socioeconomic status of their families. In addition, the proportion of students that do not participate in online education tend to have highly uneducated parents, are the children of skilled worker mothers, and the children of the high school educated mothers who have limited access to education. We know from sociological studies that social differences could also be detected at the regional level and this is no different in Hungary. Most of the students who do not have an internet connection or PC reside in the Szabolcs-Szatmár-Bereg and the Borsod-Abaúj-Zemplén county. Of particular concern is the lack of internet or PC access for children with poorer grades in reading or math. This means that students who are at the greatest need for education to evolve their skills do not receive it (Herman, 2020).

Another impact of the pandemic on formal education is that of social inclusion. Students do not go to the school only to seek knowledge, they go to the school to socialize as well. Thus, the role of the school in socialization cannot be ignored. Students need their friends, habits and rituals of school, etc., and the lack of participation in a community could cause students to not be persistent in their studies. A study of students in higher education revealed that due to the pandemic, in addition to contacts outside the intergenerational institution, relationships of students decreased significantly in all cases.

The decrease of these relationships of students had been compared with the student's persistence and engagement. Students also stated that the decrease in their relationships during the COVID pandemic increased the chance of their drop out from higher education (Pusztai & Gyóri, 2021).

It was also difficult to deal with the change of the location of where schooling was taking place as it was stationed in the center of a student's home and the old, usual routines were overturned. Tackling this difficulty can also be a challenge for a family with a good socio-economic status, and students who have made poor choices have become even more vulnerable. In some cases, parents had to work from home making it even more difficult to create an adequate learning environment. Considering the case in which the parents continued to work outside their home (e.g., healthcare, commercial, factory workers, etc.), childcare became a problem. In these circumstances, the success of the learning activity can rightly be questioned. Szilveszter, Kassai, Takács, and Futó (2021) also tried to answer the question which factors present in a family environment could be attributed to a desirable situation conducive to successful learning. The research of Szilveszter et al. (2021) focused on the disadvantaged, lower grade children living in Roma settlements. The educational and financial situation of the parents was not overly decisive, as expected. The speed and success of the adaptation to the new situation is much more decisive. The child's academic success was most correlated with the existence of a daily routine. It is clear that families with lower socio-economic status find it more difficult to develop routines in their lives, a phenomenon that requires intervention (Szilveszter et al., 2021).

In conclusion, it can be clearly stated that social disadvantages could cause social exclusion. Beyond that, the lack of digital tools and competencies made it difficult to access education, and lower socio-economic families in particular found it challenging to adapt to the new situation caused by COVID-19.

4. Characteristics of the selected region, including an overview of the economic situation (North Great Plain)

4.1 Economic situation in the specified region

In Hungary, the socio-economic situation differs based on the given region of the country. Various endowments and changes in social processes resulted in differences in certain areas of the country, all of which also affect the chances of individual life prospects. According to the Government Act 2013/2015 (XII.29.), since the 2nd of January, 2018, seven regions can be found in Hungary: the Northern Hungary, the Northern Great Plain, the Southern Great Plain, the Pest county and Budapest, the Central Transdanubia, the Western Transdanubia, and the Southern Transdanubia. The two Great Plain regions have the largest geographical extent, while Budapest has the smallest (Figure 5).



Figure 5. Regions of Hungary (N=8, Source: Hungarian Central Statistical Office, 2019)

A so-called 'Social atlas' (CSO, 2012) was created, which draws attention to the differences between individual regions and even their role in reducing or increasing opportunities. Various indicators are taken into account to determine whether each region is favorable or unfavorable, the social and demographic situation, the housing and living conditions, the given local economic and labor market activity, and the infrastructural and environmental conditions. Those with the lowest value of such complex indicators typically have several problems parallelly: unemployment and/or low income, low education, high mortality rates, and poverty as a result of various other risk factors.

According to the Central Statistical Office (2012), significant differences can be observed in the eastern and western areas of the country, as well as between the north and the south. Figure 6 demonstrates that the most disadvantaged areas are located on the northern, eastern, and southern edges of the country. Moreover, the capital-centeredness is typical, as Budapest is considered favorable in many respects such as

education, job creation, higher salaries, or higher income. Compared to the capital city, there are many settlements where unemployment can be five or even tenfold higher than the national average (Hegedűs 2011). We need to draw special attention to the backwardness of small settlements, where appropriate intervention is even more important.

In our research, we intentionally focused on the Northern Great Plain region, which is also one of the most disadvantaged regions (Figure 6). Specifically, the region consists of three counties known as Hajdú-Bihar county, Jász-Nagykun-Szolnok county and Szabolcs-Szatmár-Bereg county. The territory of the region is 17729 km², and approximately 15% of the Hungarian population lives there. Thus, this region is the second largest region in Hungary and also the most populated region in the country. In all three counties, the proportion of disadvantaged people is very high, and the conditions in these areas are also very unfavorable in terms of employment. The GDP per capita data available by region shows that some areas of Hungary have been developing to varying degrees since the change of the regime. The most underdeveloped counties are Szabolcs-Szatmár-Bereg, Hajdú-Bihar, Borsod-Abaúj-Zemplén, and Nógrád, while the most developed ones are Győr-Moson-Sopron, Vas, Fejér and Pest. The Northern Great Plain (9.3%), North Hungary (6.3%) and Southern Transdanubia (6.2%) have the highest unemployment rates while Western and Central regions in Transdanubia (2.6% and 3.0%, respectively) have the lowest unemployment rates (Fedor, 2018, p. 43). The disadvantage of lagging regions, such as the Northern Great Plain region, is also gradually increasing. In 2012, the GDP per capita was only 63.9% of the national average (Nagy, 2015), and it was only 64,7% in 2019 (STADAT). That is why the social role of our research is also significant.

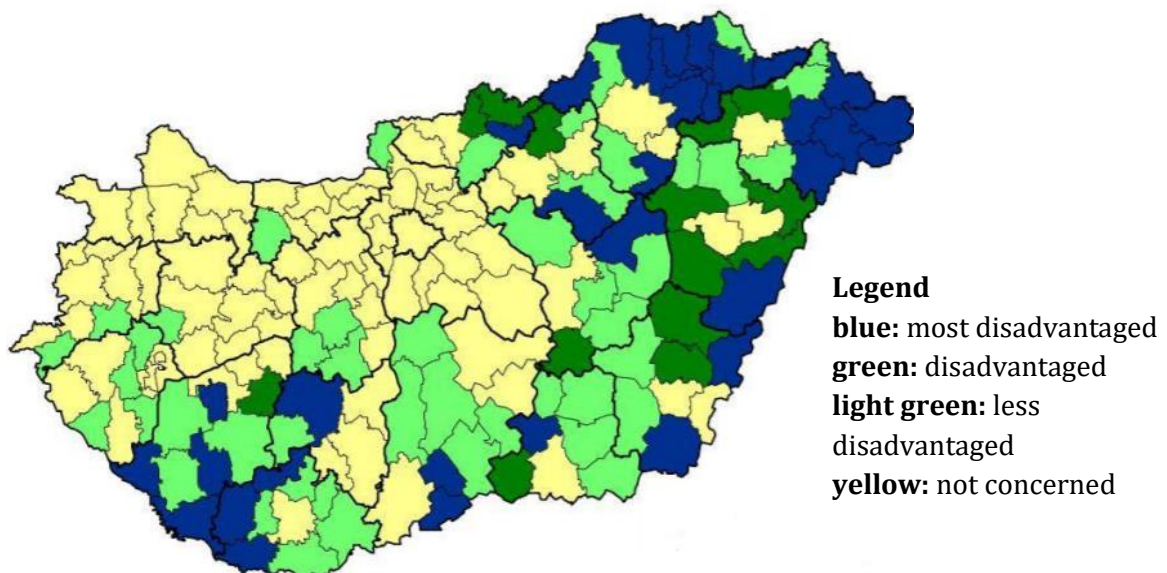


Figure 6. Classification of regions in 2007 (Source: CSO 2008, Faluvégi & Tipold 2008, p. 529)

In general, it is worth treating the Northern Great Plain region as a unit, even if it can be divided into three counties. The regions has its own special socio-economic

characteristics, and in social and demographic researches, results are usually interpreted in the context of the region where the investigated area can be found. This also gives us the possibility of making a contextual and comparative analysis.

We would like to highlight only some of the weaknesses of the Northern Great Plain region (Northern Great Plain Regional Strategic Program 2007-2013):

- the economic and socio-cultural co-operation along the external borders of the region is weak;
- the proportion of the profoundly disadvantaged population (gypsies, disabled people, children at risk) is high;
- high proportion of peripheral areas;
- employment is significantly lower than the national average;
- the quality of the transport network is poor;
- the use of information technology is low in the region;
- unequal territorial distribution and congestion of health care.

In Hungary, the differences between the poor and rich are widening, i.e. the social scissors are opening up, and the social strata are becoming less and less interoperable (Euronews, 2020). According to Híves (2015), regional differences have increased in Hungary in recent decades, and even the regions lagging behind are becoming more and more well-defined.

4.2 Description of the region's peripheral areas

The Northern Great Plain Region is located in the north-eastern part of Hungary, it is the eastern gateway to the European Union, and borders three countries (Slovakia, Ukraine and Romania). The Region is located on the eastern border of Hungary and consists of three counties, i.e. Hajdú-Bihar, Jász-Nagykun-Szolnok and Szabolcs-Szatmár-Bereg counties. It borders the Northern Hungary, the Southern Great Plain, and the Central Hungary regions. The region has a 344 km border section with Romania, a 52 km section with Ukraine, and a 6 km section with Slovakia. The area of the Northern Great Plain Region is 17,729 km². Due to the location and settlement hierarchy of the region, the role of some of its centers (“gateway cities”) is significant. The economic and cultural relations of Debrecen and Nyíregyháza, both functioning as regional centers, form the basis of this role. Also, cross-border urban connections result in the expansion of other attraction centers (Mátészalka – Nagykároly, Szatmárnémeti, Vásárosnamény – Beregszász, Debrecen, Berettyóújfalú – Nagyvárad) with gateway functions (Szűcs, 2015).

The Northern Great Plain region consists of the following districts (Figure 7):

- in Hajdú-Bihar county: districts of Balmazújváros, Berettyóújfalú, Debrecen, Derecske-Létavértes, Hajdúböszörmény, Hajdúhadház, Hajdúszoboszló, Polgár, and Püspökladány
- in Jász-Nagykun-Szolnok county: districts of Jászberény, Karcag, Kunszentmárton, Mezőtúr, Szolnok, Tiszafüred, and Törökszentmiklós
- in Szabolcs-Szatmár-Bereg county: districts of Baktalórántháza, Csenger, Fehérgyarmat, Ibrány-Nagyhalászi, Kisvárdai, Mándok, Mátészalka, Nagykálló, Nyírbátor, Nyíregyháza, Tiszavasvár, Vásárosnamény, and Záhony



Figure 7. Districts of the Northern Great Plain region (Source: <http://www.terport.hu/regiok/magyarorszag-regioi/eszak-alfoldi-regio>)

Peripheral regions are usually characterized by low indicators in the socio-economic sphere such as unfavorable development prospects and difficult communication accessibility which result from unfavorable geographic location, low-quality technical infrastructure, high transport costs, and long distance from economic centers and key growth centers (Proniewski, 2014, p. 79). Sometimes the border character of the region may be considered an aspect of peripheral nature (Miszczuk, 2010, p. 236).

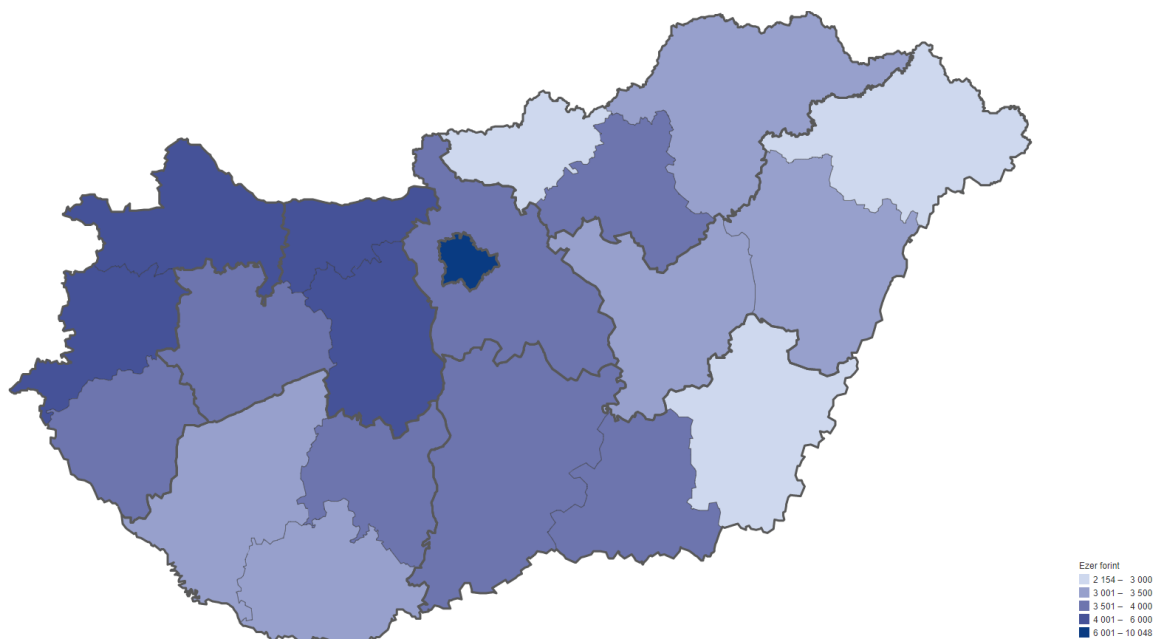


Figure 8. GDP per capita in forint in the different counties of Hungary (1000 forint, Source: <https://map.ksh.hu/timea/?locale=hu>)

It is visible in the figure above that the GDP per capita is quite low in the investigated area compared to the other regions of Hungary, especially to Transdanubia. The GDP per capita is between 3001 and 3500 in Hajdú-Bihar and Jász-Nagykun-Szolnok counties and is particularly low in Szabolcs-Szatmár-Bereg county.

Due to the multifaceted nature of the concept of "peripheral region" and the availability of statistical data in the analysis concerning Hungary, the peripherality of the region (Northern Great Plain) was demonstrated by referring to the following areas and indicators characterizing them:

- 1) Geographical aspect: location and distance from the cultural and economic center of the country
- 2) Economic development (GDP per capita)
- 3) Labor market (unemployment rate)
- 4) Income of the population (salaries)
- 5) Living conditions and standard of living in households.

Table 2. The characteristics of the Northern Great Plain region (Source: STADAT)

Indicator category	Detailed indicator	Hungary	Northern Gerat Plain
Income of the population	Average monthly income per capita in households in 2019 (HUF)	134625	99444
Housing situation of the population	Number of people per 1 apartment	2,19	2,32
Intermediate measures of consumption	The amount of electricity consumption in cities by 1 household per capita (kWh)	180,9	180,5
Possibility of education and training	Number of students in higher education institutions (2019/20)	285110	29714
	Gross enrollment rate - secondary grammar schools (age 15-18)	188970	26049
	Gross enrollment rate - secondary vocational grammar schools (age 15-18)	149090	23480
	Gross enrollment rate - secondary grammar schools and secondary vocational grammar schools together (age 15-18)	338060	49529
	Number of students in vocational school	65771	12401
	Number of student in technical school	7004	784
Access to culture	theater visits per 1000 habitants	817	245
	Number of books borrowed from public libraries in vol. per 1,000 population	2023	1828
Health care	Beds in hospitals per 10000 habitants	69,4	65,5
State of transport and communication	Public roads with hard surface (km)	32204	5324
	Standard-gauge railway lines (km)	7443	1423
Safety of life	Crimes identified by the Police	165648	20735
	Fatal road accidents	595	93

In terms of child poverty, the Northern Great Plain region is the most vulnerable, with the highest number of children receiving child protection care. The Child Protection Act aimed to establish a network of small-size children homes or orphanages ('Gyermekotthon') and created institutions that also cater to the specific needs of the people living there (Erdei & Kovács, 2020, p. 30). Among the children's homes with larger capacity, there are also homes specialized for young adults, who come of age in aftercare ('Lakásotthon').

As this region is one of the most populated regions, educational institution from every educational stage can be found in a relatively large number (Table 3).

Table 3. Number of educational institutions in Hungary and in the investigated region in 2019 (Source: STADAT)

Number of educational institutions	Number of educational institutions		Number of full-time students	
	Hungary	North Great Plain	Hungary	North Great Plain
Kindergarten	4608	680	330539	52668
Primary school	3601	603	720329	112333
Secondary grammar schools	585	181	188970	26049
Secondary vocational schools	499	85	65771	12401
Secondary vocational grammar schools	685	122	149090	23480
Secondary technical schools	201	18		

Note: number of students learning in secondary vocational grammar schools and secondary technical schools are given together by the CSO

Regarding the digital infrastructure, relevant information on the digital infrastructure of the different secondary educational institutions is available (only country data, Table4).

Table 4. ICT resources of the secondary educational institutions in Hungary in 2019 (Source: STADAT)

	institutions owning a computer	computers used in education	students using a computer	students per computer
Secondary grammar schools	690	30824	179513	5,8
Secondary vocational grammar schools	614	48572	152461	3,1
Secondary vocational schools	405	16222	67020	4,1
Secondary technical schools	153	2391	5707	204

The development of the region is also supported by various nonprofit and non-governmental organizations which are underrepresented compared to the country data (Table5). Their activities and involvement are related to several areas, partly focusing on education.

Table 5. Number of nonprofit organizations with their focus (Source: https://www.ksh.hu/stadat_files/gsz/hu/gsz0041.html)

Focus of function	Hungary	North Great Plain region
Culture	9699	1103
Sport	9585	1106
Leisure time	8988	1213
Education	7951	999
Social care	5123	734
Professional, economic advocacy	2959	288
Overall	60890	7435

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

5.1 Characteristics of potential institutional recipients

Table 6. Name and type of institution (Source: own study)

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
Romaversitas Foundation (NGO)	1086 Budapest, Dankó utca 15. + Budapest region	Subject preparation, language preparation classes, mentoring, study guidance, scholarships, mental health counselling
Carpathians Foundation Hungary (NGO)	3304, Eger, Felvégi u. 53.	Volunteering and Internship Program with the aim of Strengthening and activating small communities in Northeast Hungary
Matrix Non-profit Foundation (NGO)	6701 Szeged, PF: 929.	A support program for children aged 10-14 living in disadvantaged families that aims to provide children with a complete (used but still in good condition) computer, laptop, tablet, or other smart device.
Óbudai Otthon Segítünk Alapítvány (NGO)	<i>1074 Budapest, Szövetség utca 43. I/10.</i>	The Foundation is a network of support services that support families at the local level for the harmonious functioning, strengthening and appreciation of parenthood. They offer help to families where at least one child under the schooling age is being raised. They offer a new human connection to families who ask for help. It is up to each parent to determine what they need most so that the years they spend at home are not wooded, boring, but enjoyable.
Hungarian Civil Liberties Union (NGO)	1136 Budapest, Tátra utca 15/B.	It was founded in 1994 in Budapest, following the example of the American Civil Liberties Union. It is a non-profit organization for advocacy and law development, freedom of expression and political freedoms, self-determination and protection of privacy. Providing legal advice and representation

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
Ökotárs Foundation (NGO)	1056 Budapest, Szerb u. 17-19,	The association, founded in 1994, supports cooperation between the green movement, civilians, and other sectors. It aims to contribute to the development of a democratic, sustainable and just society. It works on the strengthening of Hungarian non-governmental organizations and the development of the civil sector. One of its main areas of activity is the support of local, grassroots community groups, the other is the development of civic cooperation, civic networks and active participation in them (e.g. the Civilization Coalition).
“Step by Step!” Association (Lépjünk, hogy Léphessenek! Egyesület) (NGO)	1085 Budapest, Stáhly u. 13. II. emelet 2094 Nagykovácsi, Templomkert u. 6.	Founded in 2011, it was created by concerned parents. The association advocates for social assistance for families raising disabled children. It operates the first inclusive school in the country. The association brings together a national network of 30 parent organizations, and establishes dialogue and partnership with decision-makers and civil society. It also runs an information network and cultural programs.
Social Innovation Foundaton (Szociális Innováció Alapítvány) (public)	1122 Budapest, Goldmark Károly u. 31/A	It has been operating since 1997. The activities of the foundation focus on the development and dissemination of strategies and operational solutions that help to improve the situation of disadvantaged social groups through innovations. In general, the Roma segregate provides vital services within the framework of an EU program, in cooperation with the municipality.
Haver (Dude) Foundation (NGO)	1053 Budapest, Ferenciek tere 7-8.	The Foundation was established in 2002. The Haver Foundation’s volunteer faculty holds interactive lessons primarily for high school and college students with informal educational tools on the subject of Judaism. Its sessions are based on specific topics such as Jewish identity, Jewish culture and tradition, Jewish history, the Holocaust, Jewish religion, and communities.

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
NIOK Foundation (public)	1122 Budapest, Maros utca 23. mfszt 1.	It was founded by a non-profit research group in 1993. It considers a strong, bottom-up civil society to be a fundamental value, it serves to strengthen NGOs in value creation, and to do all this in an efficient, sustainable and transparent way. Its programs improve the professionalism and effectiveness of organizations and strengthen the relationship of the civil sector with public administration, business, and society as a whole. It participates in fundraising, operation of fundraising interfaces, consulting, and knowledge base development
Uccu Roma Informal Educational Foundation (public)	1106 Budapest, Visegrádi u. 43-45.	It is the Hungarian Roma civil society organization. The main mission of Uccu is to combat prejudices and negative stereotypes related to Roma to allow Roma to live in a more tolerant and open society. The “Without Taboos on Prejudice” project provides an opportunity to meet. This joint session of the Haver (Dude) and Uccu Foundations gives high school teachers the opportunity to talk about Judaism, Gypsies, and minorities in general in an understandable and easily accessible way through personal stories.
Centropa Foundation (NGO)	1075 Budapest, Rumbach Sebestyén utca 11-13.	Centropa is a non-profit, Jewish historical institute dedicated to preserving 20th century Jewish family stories and photos from Central and Eastern Europe and the Balkans, and disseminating these stories and photos through films, books and exhibitions. They develop educational materials based on personal stories. They organize films and exhibitions. In the online database of Centropa Hungary, the reader can find thousands of old Central and Eastern European Jewish family photos, their stories, and life interviews.
Amnesty International (NGO)	1054 Budapest Báthory utca 4.	Amnesty International, established in 1961, is a global movement of more than 10 million people who take injustice personally. They are campaigning for a world where human rights are enjoyed by all.

Name and type of institution (public / NGO / commercial)	Registered office address, including region	Brief description of the institution (areas of activity, history, etc.)
Kesztyűgyár Community House (public)	1084 Budapest Mátyás tér 15.	It was established in the fall of 2008. Its predecessor was the “School of Love” that helped adults in a disadvantaged position with educational backlogs. The Community House launched its own mentoring program, mainly for students in a disadvantaged or profoundly disadvantaged position living in the VIII. district of Budapest (they also accept those coming from outside the target area). At the time of the epidemic, online education was organized to help students with disabilities.
Youth Catalyst Forum (public)	Online	Youth Catalyst Forum is a youth organization founded by a student in 2021. It is designed to help young people facing obstacles, guide those who have no vision, and inform those who need guidance. The goal is to set up working groups for efficient operation.
Anonymous Ways Foundation (NGO)	1367 Budapest, Pf: 33.	It was established in 2012. The foundation primarily deals with the full rehabilitation and reintegration of victims of human trafficking, including sexual exploitation and prostitution. Their mission is also considered to be the field of prevention and crime prevention. They also help victims through their permanent helpline.

5.2 Good practices during the SARS-COV-2 pandemic

During the pandemic, it was certain that new good-practices were needed to solve the problems caused by the lockdown and school closures. Different organizations tried to react to the situation as fast as possible. In this section, we introduce four good practices applied during the first lockdown (and applied later during remote education) (Ökotárs, 2021).

Romaversitas Foundation: Support for Roma youth (Romaversitas Alapítvány: Roma fiatalok támogatása)

The aim of the project is providing online support for high school and college students. Program design was done with the involvement of students: at the beginning of the quarantine, the foundation assessed the needs of the students. Based on the feedback, the educational program was reorganized and additional scholarships were provided. Romaversitas’ online education program began one week after the school closure. In keeping with the tradition of the organization, regular contact was made with all students and it was recorded what students needed to be able to continue their studies.

Fundraising events were organized, donated notebooks were distributed among students, and volunteers such as mental health workers, professional tutors and teachers were recruited. In addition to and as part of the regular education program, young people were able to take part in trainings and skills development courses.

Main tasks:

- 1) Preparation for subjects
- 2) Skill development
- 3) Further education-related counselling
- 4) Acquisition of computers
- 5) Mental hygiene counselling
- 6) Crisis Scholarship
- 7) Starting of a mentoring program
- 8) Year-ending cooking

New Start Foundation: New Start (Új Start Alapítvány: Új Start)

The aim of the project is providing online education in 42 settlements. The Foundation supports 50 profoundly disadvantaged high school and college students, mostly in segregation, with tutoring and scholarships. During the pandemic, their fellows had to deal with difficulties with access to online education and continuing to nurture their talents. The majority of the children participating in the Roma Talent Program study in colleges. Due to the school closures, the children returned home. Wired internet was available to 20% of children, and mobile internet was available to 50%. 25% could not use the free internet packages offered by mobile internet service providers due to debt. Notebooks were owned by 35% of the children, thanks to a previous donation of a laptop by the foundation. An additional 20% of children had a periodically accessible laptop, and 80% of the children had a smart device. In addition to computers and Internet access, the use of programs and applications through which students could keep in touch with their teachers (e.g. students had to move home from dormitories or had several school-aged siblings in the family, etc.) was also a problem. Parents were not competent in learning, could not provide help, and an additional problem was the lack of a relaxed learning environment.

The foundation managed the crisis with the help of the foundation's extensive network of supporters and volunteers. In all cases, the volunteers come from the local community, and the foundation is informed about current problems through their network.

Main tasks:

- 1) Solving the issue of Internet access
- 2) Acquisition of tools
- 3) Tutoring developments during the pandemic period

InDaHouse Association: InDaHouse (InDaHouse Hungary Egyesület: InDaHouse)

The aim of the project is providing digital education (in Pere, Hernádszentandrás, Ináncs, Fügöd). InDaHouse has been holding developmental training sessions in its area of operation (Pere, Hernádszentandrás, Ináncs, Fügöd) since 2014. During the epidemic, the volunteers coming from Budapest could not personally work with the children participating in the program. Schools also switched to remote education, but the necessary conditions for remote education were not met. The lack of the necessary tools, the workload of the parents or their competencies, and the deficiencies of their knowledge were also problems. Many families have 3-4 school-aged children, the children have several younger siblings, and there is no time to study with everyone on a daily basis. In most cases, schools in the online system only wrote down which tasks the children should solve.

The association established a close relationship with the local school and, as a result of its fundraising campaign, provided laptops and internet to families who did not have adequate learning facilities. They helped not only by teaching children and providing them with tools, but also by assigning and collecting homework on paper. The center of InDaHouse served as a collection point where the children could hand over the solved tasks which were then taken from there by the school. Volunteers obtained students' textbooks (from acquaintances and the internet) and uploaded them categorized by class into a common google drive for all volunteers to access.

Main tasks:

- 1) Visiting families, health assessment
- 2) Contact with school
- 3) Collection of educational tools
- 4) Fundraising
- 5) Categorization and allocation of tools
- 6) Creation of online learning pairs/groups
- 7) Online learning
- 8) Providing Internet
- 9) Handling problems related to devices and the Internet
- 10) Coordinating learning pairs
- 11) Food distribution

Deviszont Community Space: If you need a place - community-building with students learning in vocational education (Deviszont Közösségi Tér: Ha kell egy hely - közösségépítés szakképzésben tanuló fiatalokkal)

The aim of the project is providing digital education in Kispest. The Deviszont Community Space is an initiative that provides young people learning in vocational training with alternative learning and leisure opportunities. Project-based sessions based

on the tools of critical pedagogy and experiential pedagogy are organized on a weekly basis. The community space is open to all young people in vocational training, which is the primary target group. In the unequal and segregated Hungarian education system, young people studying in vocational training are at a particular disadvantage. They have low economic and cultural capital, are often in a disadvantaged situation, and suffer from integrational, learning and behavioral disorders, and are therefore at greater risk of dropping out of school. Education is no longer compulsory for them, and no one helps them stay in school. Thus, the aim of the community space was to keep them in the system, keep contact with them, and to provide devices, stability and support for them.

Main tasks:

I. Preparation

- 1) Getting young people online
- 2) Assessment of individual inquiries and needs of young people's technical equipment
- 3) Development of online methodology, testing and setting up of the interfaces

II. Operating an online help program

- 1) Weekly Thursday sessions
- 2) Set up a weekly routine
- 3) Introduction of Tuesday clubs (small groups)
- 4) Regular individual inquiries as needed
- 5) Individual helping conversations, direct assistance to problems that arise on occasions

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

The Government Decree 41/2020 (11th of March) on the measures to be taken during the state of danger declared for the prevention of the human epidemic endangering life and property and causing massive disease outbreaks, for the elimination of its consequences, and for the protection of the health and lives of Hungarian citizens declares the legal possibilities concerning the current pandemic. It states the basic possibilities concerning remote education and regulates the main line of digital education. However, the government decree lays the basis of the process but does not specify its exact realization. Also, the acts implemented by the government must be in accordance with the REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC. In order to digitally renew education, the Government decided to establish a Digital Pedagogical Methodology Center, which will develop a framework and measurement tools for digital competence requirements for students, teachers, school leaders and all types of educational institutions, and will launch pilot programs based on feasibility studies for the developments to be implemented under the Strategy.

One of the most significant methods of support could be ensuring free Internet access for school-aged children which could solve the problem of a lacking Internet connection. During remote education, the government obliged the Internet-providing services (e.g. Telekom, Telenor Hungary etc.) to provide Internet access for their users having at least one school-aged child free of charge. This was a significant support for many households. However, university students were not taken into account, but should be taken into account in case of similar situations. Also, teachers teaching in every educational level should be involved in this program.

Another important and practical way of legislative support could be the creation and consolidation of the national support of the Hungarian Non-Governmental Organizations. NGOs can also significantly support civic issues in case of a pandemic, which is clearly visible from the good practices mentioned above. The support and creation of the legal basis for the cooperation between NGOs and educational institutions can significantly enhance the problem-solving process concerning diverse societal issues (e.g. poverty, fundraising, reducing social exclusion) including this kind of pandemic situation. However, we have to emphasize that reducing social exclusion (and reacting appropriately to such a crisis) is a rather financial than a national issue. Thus, we suppose that the legislation could regulate the ways of creating connections between governmental and non-governmental organizations, the ways of providing financial support by the governmental, non-governmental, and municipal organizations and the ways of cooperation between the above-mentioned organizations and educational institutions.

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 having limited access to, the Internet and digital equipment

As a recommendation, we would suggest strengthening mixed support including education-related and financial support. We could see some examples of that in the above-mentioned good practices, such as providing financial aid for families besides providing them with digital tools and digital knowledge. Another noteworthy initiative can be strengthening the partnership of public and private sectors. In many cases, the industry was quick to offer free access to communication tools (e.g. Zoom). These could have been easily applied during remote education and are still available in several schools. Creating a strong partnership with services can support schools, teachers, parents, and children in maintaining a continuous relationship and quality education, even in the time of the pandemic (European Parliament, 2021).

The digital transformation of education should be considered as well. It is not a one-time process, because the constant development of technology (tools and applications) and the constant change of pedagogical thinking underlying its use also make it necessary to continuously “adapt” pedagogical practices. The pedagogical activity of educators in and out of school (e.g., reverse classroom, online learning, etc.) determines the effectiveness and efficiency of the learning process. Following the advices of the Digital

Pedagogical Development Working Group (Digitális Pedagógiai Fejlesztések Munkacsoport (2021, p. 13), we suggest implementing the following:

- Reverse classrooms where built-in technology allows for learning based on students' individual work.
- Use installed devices - alternating with the previous "Bring Your Own Device" (BYOD) approach, meaning each child uses his or her "own" device.
- The use of augmented or virtual reality that brings the real world into the walls of the school and places a layer of digital information on the real environment viewed through the displays.
- The use of artificial intelligence, such as chatbots, that is, chat algorithms, allows students to interact for learning purposes, thereby supporting individual work and personalized feedback.
- Gamification, i.e. the use of game theory for specific pedagogical purposes in lessons.
- Support personalized learning and individual learning pathways, for example in a blended learning environment, increasing student responsibility and reducing direct teacher control. The applied adaptive learning technology further increases the students' decision-making opportunities, the number of individualized learning / practice opportunities, and provides feedback by analyzing the student's performance and offering the next learning activity based on it.

Glossary of abbreviations and terms used

CSO - Central Statistics Office

NGO - Non-Governmental Organization

COVID-19: SARS-CoV-2 coronavirus

ISCED: International Standard Classification of Education

PISA: Program for International Student Assessment

OECD: Organization for Economic Co-operation and Development

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