Youth in Central and Eastern Europe

Vol. 8 No. 12 / 2021
ISSN 2409-952X (UA), ISSN 2720-4049 (PL)

Received: 1.12..2021 Revised: 16.12.2021 Accepted: 23.12.2021 Available: 31.12.2021

Paweł Walawender

The Pedagogical University of Krakow
https://orcid.org/0000-0003-4573-5759
pawel.walawender@up.krakow.pl

Damian Liszka

The Pedagogical University of Krakow
https://orcid.org/0000-0002-2192-1672
damian.liszka@up.krakow.pl

HOW TO RESEARCH EDUCATIONAL INEQUALITIES ARISING FROM REMOTE EDUCATION DURING THE COVID-19 PANDEMIC? RESEARCH IN COUNTRIES OF THE VISEGRAD GROUP (V4)[1]

JAK BADAĆ NIERÓWNOŚCI EDUKACYJNE WYNIKAJĄCE Z EDUKACJI ZDALNEJ PODCZAS PANDEMII COVID-19? BADANIA W KRAJACH GRUPY WYSZECHRADZKIEJ (V4)

DOI: 10.24917/ycee.2021.12.14-23

Abstract: Due to many restrictions in Central and Eastern Europe during the COVID-19 pandemic, the area of formal education of young people was dominated by remote (online) classes. Although research has been conducted on the impact of the COVID-19 pandemic on education and social inclusion of young people, their families, and teachers, there are very few studies focusing on young people from rural areas, small towns, and less developed regions. This work presents findings of the preliminary analysis, based on the desk research method, of the effect of the pandemic on teachers, students, and their families from different groups and backgrounds from four Visegrad Group countries. Therefore, this article should be treated as an introduction to further findings that will be available after the main research is carried out.

Keywords: COVID-19 pandemic, youth, school education, philosophy of education, distance learning, social inequalities.

[1] The originator and substantive author of the project concept is dr hab. Piotr Długosz, prof. UP.

Abstrakt: Ze względu na liczne ograniczenia w Europie Środkowo-Wschodniej podczas pandemii COVID-19 obszar formalnej edukacji osób młodych zdominowały zajęcia zdalne (lekcje online). Chociaż przeprowadzono badania nad wpływem pandemii COVID-19 na edukację i włączenie społeczne młodych ludzi, ich rodzin i nauczycieli, niewiele jest badań skupiających się na młodych ludziach z obszarów wiejskich, małych miast i regionów słabiej rozwiniętych. Niniejszy tekst przedstawia wyniki wstępnej analizy, opartej na metodzie *desk research*, dotyczącej wpływu pandemii na nauczycieli, uczniów i ich rodziny z różnych grup i środowisk czterech krajów Grupy Wyszehradzkiej. Artykuł należy zatem traktować jako wstęp do dalszych ustaleń, które będą dostępne po przeprowadzeniu badań głównych.

Słowa kluczowe: pandemia COVID-19, młodzież, edukacja szkolna, filozofia edukacji, kształcenie na odległość, nierówności społeczne.

Introducution

Due to many the restrictions in Central and Eastern Europe during the COVID-19 pandemic, the area of formal education of young people was dominated by remote (online) classes. This form of education is safe as it does not require physical contact between students and a teacher. Nevertheless, remote learning also increases inequalities among young people. Those who do not have access to a computer, the Internet, or devices with trouble-free reception of digital data cannot fully participate in formal education and cannot integrate with the rest of the society during the pandemic on a par with those with the above-mentioned resources (Macintyre, Macdonald, 2011; Khalid, Pedersen, 2016; Park et al., 2015; Polat, 2012). Also, parents or teachers from less developed areas (or so-called "peripheries") cannot help digitally excluded youth catch up with educational and social backlogs as they often do not have proper technical competencies, access to equipment, or ability to conduct educational activities remotely (Khalid, Pedersen, 2016; Powell, 2010; Katz, 2021; Nguyen et al., 2020; Azubuike, 2021).

Although research has been conducted on the impact of the COVID-19 pandemic on education and social inclusion of young people, their families, and teachers, there are very few studies focusing on youth from rural areas, small towns, and less developed regions, or in other words, Visegrad Group countries' "peripheries". Examples of such studies are the works of Magdalena Korzycka et al. (2021) and Piotr Długosz (2021).

Between June and September of 2021, an analysis was conducted on the effect of the pandemic on teachers, young people, and their families from different groups and backgrounds living in four Visegrad Group countries (the Czech Republic, Hungary, Poland, and Slovakia). The study was completed using a desk research technique of the existing documents and research results and is a part of a project called "Preventing post-COVID Social Exclusion Together"[2]. This work presents the initial findings of the analysis. Therefore, this article should be treated as an introduction to the main results that will be available after the remaining research is carried out.

Methodology

Desk research is a social research technique that involves the analysis of existing and available data and is not related to the acquisition of new information, but to ordering, processing, and analysis of the collected data, both external and internal (Boguszewski, Makowska, 2013). The common denominator of the research was the as-is status:

– establishing the quantity of the research conducted in each country on the effects of online

[2] The project No. 22110213 (Strategic Grant) is co-financed by the Governments of Czechia, Hungary, Poland, and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

Walawender, P., Liszka, D. (2021). How to research educational inequalities arising from remote education during the COVID-19 pandemic? Research in countries of the Visegrad Group (V4). *Youth in Central and Eastern Europe*. 8(12), 14–23. https://doi.org/10.24917/ycee.2021.12.14-23

education on young people from periphery areas,
- determining whether the research included people lacking a computer, Internet access, or digital skills,
- exploring if there were any inequalities already identified among young people (including inequalities in the area of educational, digital, and social inclusion).

Diagnostic research was undertaken in the countries of the Visegrad Group. It aimed to provide answers to the following questions:

1. What is the structure of the education system in a given partner country?
2. What was the course of the SARS-CoV-2 pandemic in the selected country in 2020–2021?
3. What impact did the pandemic have on formal education?
4. What impact has the pandemic caused 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 a peripheral region and be considered for the location of questionnaire research?
6. What are the examples of good practices implemented to counteract the phenomenon of exclusion (social, educational, and digital) during the pandemic? (Walawender, 2021).

Peripheral Regions

One of the purposes of the desk research was to identify, in each of the V4 countries, an administrative region for the purpose of further research on inequalities in the country's "periphery".

Due to the multifaceted nature of the concept of a "peripheral region" and the availability of statistical data in the analysis concerning Poland, the peripherality of the Subcarpathian voivodeship (in Polish—*województwo*, one of 16 administrative regions in Poland) was demonstrated by referring to the following areas and indicators characterizing them:

- geographical aspect: location and distance from the cultural and economic center of the country,
- economic development (GDP per capita, share in generating GDP),
- entrepreneurship development (number of entities per 10.000 inhabitants),
- labor market (unemployment rate, percentage of long-term unemployment),
- income of the population (salaries),
- living conditions and standard of living in households (Walawender, 2021).

About 5.5% of Poles lived in the Subcarpathian voivodeship (data from 2021); however, the voivodeship accounted for only 3.9% of the total product produced in Poland, and the GDP per capita was significantly lower than in other regions of Poland (the 14th place out of 16 regions from data in 2018). In 2018, GDP per capita in the Subcarpathian voivodeship accounted for 70.6% of the product attributable to an average Pole. The region has an average unemployment rate measured by BAEL (16.6%), yet in 2020 it had the highest value of the percentage of long-term unemployment in the total number of unemployed people (long-term unemployment means that the registered unemployed person had retained an unemployed status for more than 12 months from the date of the last registration)—46.4% (39.7% in Poland). The average wages in the Subcarpathian voivodeship have been one of the lowest in the country for many years. In 2019, the average wage in the Subcarpathian voivodeship accounted for 84.7% of the national average wage (lower salaries were recorded only in one voivodeship) (Walawender, 2021).

Based on Polish indicators and characteristics of a peripheral region, such regions were also identified in three other V4 countries that participated in this project. In Slovakia, the Eastern Slovakia consisting of Prešov and Košice self-governing regions (in Slovak—*kraje*) were

identified as periphery. The worst situation was in the Prešov administrative region that is located on the border of Ukraine and Poland, away from the economic, political, and cultural centers. The GDP per capita in 2019 in the region was the lowest from all regions of Slovakia (12.151 EUR versus the average of 17.212 in the country) (Štatistický úrad SR, 2021a, as cited in Šepeľáková, 2021). The unemployment rate was 11.89% in June 2021 in the Prešov *kraj* and 11.21% in Košice (the average in Slovakia was 7.76%). Therefore, Eastern Slovakia's *kraje* had highest unemployment rates in the country (Ústredie práce sociálnych vecí a rodiny, 2021, as cited in Šepeľáková, 2021). The long-term unemployment rate in Slovakia in the first quarter of 2021 was 3.6%, while in Eastern Slovakia it was 5.6% (Inštitút zamestnanosti, 2021, as cited in Šepeľáková, 2021). The average monthly nominal wage in Slovakia reached 1.124 EUR in the first quarter of 2021, with the lowest wage being in the Prešov *kraj* (866 EUR) (Štatistický úrad SR, 2021b, as cited in Šepeľáková, 2021).

In the Czech Republic, the administrative unit of the Ústecký region (in Czech—*kraj*) was identified as periphery. It is located at the border (with Germany). The difference (data from 2019) in GDP per capita between the Ústecký *kraj* and the overall GDP per capita in the Czech Republic was 28%. The unemployment rate in 2019 in the Ústecký region was 2.5%, and it was similar to the country average rate (2.0%). The long-term unemployment was (in 2019) 22.3% in the region versus 20.8% in the country (Czech Statistics Bureau, 2021, as cited in Šťastný, 2021). Other indicators were also taken into account in the Czech Republic, for example, the share of the regional population in distrains (seizure of property due to unpaid debt) was used as an indirect indicator of poverty and economic problems, and it is the highest in the Ústecký region. The share of people aged 15+ in Ústecký region in distraints is almost 17 % (compared to national average of 8.6 %). Other indicator included the share of households with available access to the Internet. The Ústecký region (in 2019) was under the republic average (81.1%) with only 74.8 % households in the Ústeckýregion possessing an Internet connection (Czech Statistics Bureau, 2021, as cited in Šťastný, 2021).

In Hungary, as of 1 January, 2018, there are seven administrative regions. One of them was classified as peripheral (the Northern Great Plain region, in Hungarian—*régió*). As with the other three Visegrad peripheral regions described above, this region is also at the border of the country, and it borders three countries—Slovakia, Ukraine, and Romania. Approximately 15% of Hungarian population lives in the *régió* and it is the second biggest region in Hungary and also the most populated one (Kovács et al., 2021). The GDP per capita (2019) in the region was only 64.7% of the national average (STADAT, n.d., as cited in Kovács et al., 2021). The average monthly income per capita in in the region (2019, currency of HUF) was 99.444 in the region versus 134.625 for Hungary as a whole. From other indicators considered, child poverty was taken into account, since the Northern Great Plain region is the most vulnerable, with the highest number of children receiving child protection care (Kovács et al., 2021).

Findings on Inequalities among Young People

The initial conclusions presented below are based on the unpublished desk research reports prepared in the 4 Visegrad Group countries (Walawender, 2021; Šťastný, 2021; Kovács et al., 2021; Šepeľáková, 2021). These are only selected and non-exhaustive findings from the desk research stage and consist of conclusions from the reports' section entitled "Impact of the Pandemic on the Social Inclusion of Young People and Their Families (Social, Educational, and Digital Exclusion)".

It should be noted that most of the known research on the effects of online education in

Walawender, P., Liszka, D. (2021). How to research educational inequalities arising from remote education during the COVID-19 pandemic? Research in countries of the Visegrad Group (V4). *Youth in Central and Eastern Europe*. 8(12), 14–23. https://doi.org/10.24917/ycee.2021.12.14-23

Poland was conducted using the online survey method (Computer-Assisted Web Interview or CAWI). Therefore, the sample from these surveys represents the opinion of people who have Internet access and want to provide answers. Usually, these are socially privileged young people from families with a higher status, who are interested in education and have the support of their parents. Therefore, it is difficult to provide accurate all-inclusive data. We can only use various hypothetical data. It is also worth emphasizing that there is almost no data on the issue of exclusion in the periphery. The available studies were carried out using only the online methods (Zahorska, 2020).

As shown by the results of the research carried out in Poland by one of the authors of this paper (Walawender, 2021), it seems that a number of problems in the area of health and social life appeared among students, for example: depression, psychosomatic symptoms, anti-health lifestyle changes (lack of exercise and other activities), lack of digital hygiene (Pyżalski, 2021, p. 9). However, there is a small though significant (approximately 5%) group of young people who, for various reasons, gained during the school closure (Pyżalski, 2021). The pandemic reality contributed to the deepening of social exclusion of some young people being in maturation process as "potential risk factors that may influence the course of the maturation process and define an important cultural context of social adolescence are particularly important. These include, among others: improper functioning of the family, deterioration of the psychophysical condition, e.g. as a result of illness, significant limitation of fitness or even short-term disorders, deficit of emotional self-control" (Piotrowski, Wojciechowska, Ziółkowska, 2014, p. 5). Despite the social exclusion, digital exclusion also deepened in terms of: lack of appropriate equipment, lack of or limited Internet access, lack of adequate (housing) conditions for learning, limited availability of educational services and resources (especially for students with disabilities: visually impaired, blind, hard of hearing and deaf) (Digital Center, 2020).

Research from Slovakia on the course of the implementation of teaching in schools in Slovakia during the pandemic was based on studies carried out mainly among primary and secondary school teachers (Šepeľáková, 2021). According to the teachers, the pandemic brought several negative phenomena: deterioration in working comfort (46%), mental health (41%), physical health (35%), and socio-economic situation (32%). Moreover, 84.5% of the teachers answered that pupils learned less of the curriculum. In terms of the positives of the pandemic, the teachers reported: the improvement of digital skills (59.6%) and improvement of their presentation skills (39.6%) (Komenského inštitút, 2021, as cited in Šepeľáková, 2021).

One of the first studies on the effect of the pandemic in Slovakia concluded that in 2020 7.5% of the pupil population from primary and secondary schools remained without access to education, and in the case of special primary schools 18.5% of pupils did not learn online (Ostertágová, Čokyňa, 2020, as cited in Šepeľáková, 2021). The finding of the Institute of Educational Policy (Ostertágová, Čokyňa, 2020) was that the lack of technical equipment was a major problem. According to available data, 82% of Slovak population has access to the Internet but this share varied significantly with respect to individual income groups (Gardoňová, Rybanská, 2021, as cited in Šepeľáková, 2021). The problem is visible mainly in Romani households, where an estimated 60% of children have no Internet access, and in the case of children from poor majority households (48% of children without Internet access). In the case of children from ordinary households, only 5% are without Internet access (Bednárik et al., 2020, as cited in Šepeľáková, 2021).

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, the problems are: the

lack of extracurricular activities (74% of parents), sitting in front of a TV, smartphone, computer, tablet, and playing games on social networks (75% of respondents), the loss of habits, a change in the child's daily routine, lack of the regularity of getting up, etc. (68% of parents). Moreover, 60% of the parents perceive the reluctance to learn and postponing learning to a later time as a problem (Velšič, 2021, as cited in Šepeľáková, 2021).

Research in the Czech Republic (Šťastný, 2021) concluded that up to 2021 research on the topic of the impact of the COVID-19 pandemic on school practices and the situation of families with school-aged children was conducted only through online surveys. The research study by Cyril Brom et al. (2020) on of 9.810 parents, although not representative, found that teachers most often assigned tasks, but to a smaller extent actually explained tasks and/or actually taught subjects, and parents would prefer that teachers engage in the latter two activities more often (after: Brom et al., 2020, as cited in Šťastný, 2021). If it comes to digital exclusion, the Czech School Inspectorate's representative survey (Česká školní inspekce, 2020) among school principals found that 11% of primary school students and 16% of basic school students did not communicate online with the school during the first COVID-19 lockdown in spring 2020, mainly due to the inaccessibility of a computer or the Internet (Česká školní inspekce, 2020, as cited in Šťastný, 2021). Despite the fact that the Internet connection accessibility significantly improved in the past years, in Czechia there are still households with limited Internet or no access to it, especially among low-income groups. According to the Czech Statistics Bureau (2020), 98% of households with children had Internet connection, but among the households in the lowest income quartile 53% reported having no access to the Internet (Czech Statistics Bureau, 2020, as cited in Šťastný, 2021).

A follow-up study by the Czech School Inspectorate (2021) mentioned that low motivation, especially among socially disadvantaged students, is a problem hindering participation in school remote instruction (Česká školní inspekce, 2021, pp. 15–17, as cited in Šťastný, 2021). Other studies (Bicanová et al., 2021a; Bicanová et al., 2021b) pointed out that school closures had a negative impact on student well-being, as an increase of 20 percentage points of students had a bad mood more than once per week than before the school closure. Poor student well-being is more often present among students of incomplete families, students of less educated parents, and among students in households where also language other than Czech is spoken (Šťastný, 2021).

Another study conducted by the Czech School Inspectorate (Pavlas et al., 2021) focused on the return of students back to "standard" schooling estimated the number of students with knowledge gaps as 1.5 thousand at the primary level, 22 thousand at the lower-secondary level, and 18 thousand at the upper secondary level of education (Česká školní inspekce, 2021, as cited in Šťastný, 2021). Yet, another study (Pavlas et al., 2021) concluded that about 2.6 % of primary school students, 5 % of lower-secondary school students, and 4.5% of upper-secondary school students had serious knowledge gaps that are unlikely to be solved during the 2021/2022 school year, as estimated by Czech teachers (Pavlas et al., 2021, as cited in Šťastný, 2021).

In Hungary, accordingly to the desk research findings (Kovács et al., 2021), no representative study was carried out measuring the effects of the COVID-19 pandemic and remote education on students. Most of the completed research was done through an online method. Although during the pandemic Internet-based remote education was supported, Zoltán Hermann (2020) states that 7% of students in grades 6, 8, and 10 were not participating in education, furthermore, 7.7% have very limited access to online education (Hermann, 2020, as cited in Kovács et al., 2021). Another study concluded that 13% of the pupils and students could not connect to remote education (ILO, 2020, as cited in Kovács et al., 2021).

Table 1

Identified country-specific social problems (challenges)

No.	Problem(s)	Country
1.	The difficulty of involving pupils of special needs in remote education in primary schools for people with disabilities.	Poland, Slovakia
2.	Schools and their teachers differ in their approaches to help socially disadvantaged students with limited access to the Internet or with uncooperative parents. It is not systematic or coordinated (rather: each school develops individual strategies that are adjusted to the specific situation of the student but with varying impact).	The Czech Republic
3.	Lack of comparison of the disadvantaged and non-disadvantaged students in the previous COVID-19 related research studies and no common collaboration of schools with NGOs.	Hungary

Source: own study

This new situation caused a huge increase of stress in the actors of education (students, teachers, parents, principals, etc.) in Hungary. Even if digital education can have some positive effects, such as no travel costs, more cozy and flexible learning environment, more creative and closely available teachers (Deés, 2020, as cited in Kovács et al., 2021), most of the studies emphasize the mental health issues among the general population during the pandemic including negative psychological effects like stress symptoms, anxiety, or depression (Hodges et al., 2020). Students also often experience loneliness (Győri, 2020), and in general free-time management is changed in a negative way (Feifei, Boros, 2020). The decrease in the relationships of students had been compared with student's persistence and engagement. Students stated that the decrease in their relationships during the pandemic increased the chance of their drop out from higher education (Pusztai, Győri, 2021; Kovács et al., 2021).

The above research findings may help resolve some country-specific social problems or challenges that were already identified during the desk research analysis and described in this article (see Table 1).

Further Research

Further research will allow for a comparative analysis of the four countries' data and for a discussion on similarities and differences between those countries. It will include a comparison of the countries' findings of research on the students' experiences during the COVID-19 pandemic (in 2020 and 2021) in the areas of:

- level of technical availability of computers and the Internet,
- assessment of the quality of classes during distance education,
- forms of remote education,
- positive features of remote education,
- negative traits of remote education,
- health problems and mental health problems.

The analysis will be supported by auditorium questionnaires in the 4 countries, realized as a pilot test on a purposeful selection of a sample in each country's peripheral sub-regions. Once the pilot testing is finished, a quantitative survey on a randomly selected sample of households with children and adolescents of school age (primary and secondary school) from peripheral regions in each country is planned.

Limitations

Despite the advantages of conducting the study in four peripheral areas of 4 countries of the Visegrad Group, there is also a number of potential research, organizational, and legal problems. The very idea of conducting and coordinating research in several countries according to the

same methodology requires development of an adequate model of research group management. It should take into account the available indicators, language differences of researchers, legal requirements in a given entity where the research staff is employed, and research implementation procedures (e.g., whether given research is carried out by contractors, by cooperating entities, or by the scientists personally).

Since one of the desk research stage goals was the identification of the country's "peripheral regions", it should be also mentioned that no commonly accepted definition of "peripheral region" was developed. Therefore, the idea was to propose a number of indicators that can be used to point out the peripheries in all countries. Unfortunately, since indicators proposed were based on the ones used in Poland (Walawender, 2021), some of them were found not to be monitored in different countries (like in the Czech Republic or Hungary). Therefore (mainly in the case of the Czech Republic), the "peripheral region" identified differs in some aspects from the other regions (for example, in terms of distance from cultural and economic centers, average wages, unemployment and long-term unemployment rates with relation to the other regions of the country). It is strongly advised to develop and apply a common definition of "peripheries" in the future stages of the research.

In addition, differences in legal regulations in each country may be an obstacle, e.g., in the ways of obtaining contact data of respondents or the processing of their personal data. It seems that in Slovakia and the Czech Republic, main research institutes and most of the researchers avoided conducting research on adolescents (students) and conducted research mainly on parents, teachers, or school principals. It is assumed that the situation is based on avoidance of many bureaucracy requirements preferred in the countries in case of research on adolescents.

The digitally and socially excluded groups participating in the pandemic may also differ significantly in terms of socio-demographic and individual characteristics, such as ethnicity.

The research will also need to take into account ethical dilemmas that may accompany them, such as the answer to the question of how to conduct personal interviews or surveys during the pandemic. These and other research problems should be identified and discussed already at the stage of preparation for the study, and even before the standardization of the methodology of selecting indicators in the involved regions.

Bibliography

Azubuike, O. B., Adegboye, O., Quadri, H. (2021). Who gets to learn in a pandemic? Exploring the digital divide in remote learning during the COVID-19 pandemic in Nigeria. *International Journal of Educational Research Open*, 2, 100022.

Bednárik et al. (2020). *Ako v čase krízy zabezpečiť prístup k vzdelávaniu pre všetky deti*. Available at: https://www.minedu.sk/data/att/20814.pdf (29.11.2021).

Bicanová, J., Korbel, V., Gargulák, K., Prokop, D. (2021a). *Dopady pandemie na žáky: Report č. 2 Dopady na well-being žáků. PAQ REsearch*. Available at: https://drive.google.com/file/d/1WcyFIXqQFDEEZI1hXn_pRAb7x-GdpJVIF/view (29.11.2021).

Bicanová, J., Gargulák, K., Prokop, D. (2021b). *Dopady pandemie na žáky: Report č. 1: Vnímání distanční výuky žáky / Poptávka podpůrných opatření ze strany rodičů*. PAQ Research. Available at: https://drive.google.com/file/d/1qdgmVeOUcGkgHrsrfMG1LAVIRTroQWL3/view (29.11.2021).

Blažek, R., Janotová, Z., Potužníková, E., Basl, J. (2019). *Mezinárodní šetření PISA 2018*. Prague. Available at: https://www.csicr.cz/Csicr/media/Prilohy/PDF_el._publikace/Mezin%c3%a1rodn%c3%ad%20%c5%a1et%c5%99en%c3%ad/PISA_2018_narodni_zprava.pdf (29.11.2021).

Boguszewski, R., Makowska, M. (2013). Analiza danych zastanych – zagadnienia wstępne. W: M. Makowska (red.), *Analiza danych zastanych. Przewodnik dla studentów* (s. 9–31). Warszawa: Wydawnictwo Naukowe Scholar.

Boudová, S., Šťastný, V., Basl, J. (2020). *Mezinárodní šetření TALIS 2018*. Prague. Available at: https://www.csicr.cz/Csicr/media/Prilohy/PDF_el._publikace/Mezin%c3%a1rodn%c3%ad%20%c5%a1et%c5%99en%c3%ad/Narodni-zprava-TALIS-2018_rozsirene_vydani.pdf (29.11.2021).

Brom, C., Lukavský, J., Greger, D., Hannemann, T., Straková, J., Švaříček, R. (2020). *Mandatory Home Education During the COVID-19 Lockdown in the Czech Republic: A Rapid Survey of 1st-9th Graders' Parents*. Available at: https://www.frontiersin.org/articles/10.3389/feduc.2020.00103/full (29.11.2021).

Center for Economic Analyzes. (2020). *Distance learning through the eyes of teachers, school principals, students and parents*. Available at: https://mcdn.edu.pl/3d-flip-book/raport-z-badania-ksztalcenie-na-odleglosc-oczami-nauczycieli-dyrektorow-szkol-uczniow-i-rodzicow/ (29.11.2021).

Czech Statistics Bureau. (2020). *Informační společnost v číslech – 2019*. Available at: https://www.czso.cz/documents/10180/90577061/06100419b.pdf/4eddfdbe-8572-455b-9a68-a9f94ebc22ae?version=1.0 (29.11.2021).

Czech Statistics Bureau. (2021). *Porovnání kraju*. Available at: https://www.czso.cz/csu/czso/porovnani-kraju (29.11.2021).

Česká školní inspekce. (2020). *Vzdělávání na dálku v ZŠ a SŠ – Tematická zpráva*. Available at: https://www.csicr.cz/Csicr/media/Prilohy/PDF_el._publikace/Tematick%c3%a9%20zpr%c3%a1vy/Vzdelavani-na-dalku-v-ZS-a-SS-Tematicka-zprava.pdf (29.11.2021).

Česká školní inspekce. (2021). *Distanční vzdělávání v základních a středních školách Přístupy, posuny a zkušenosti škol rok od nástupu pandemie nemoci covid-19*. Obtained from: https://www.csicr.cz/Csicr/media/Prilohy/2021_p%c5%99%c3%adlohy/Dokumenty/TZ_Distancni-vzdelavani-v-ZS-a-SS_brezen-2021.pdf (29.11.2021).

Deés, Sz. (2020). *Students' opinions about online education introduced due to COVID-19*. Available at: https://www.edutus.hu/cikk/hallgatoi-velemenyek-a-covid-19-vilagjarvany-hatasakent-bevezetett-online-oktatasrol/ (29.11.2021).

Digital Center. (2020). *Problems of digital exclusion in remote education. Expertise 3*. Available at: https://oees.pl/wp-content/uploads/2020/04/Ekspertyza-3.pdf (29.11.2021).

Długosz, P. (2020). *The pros and cons of distance learning for students from rural areas*. W: N. G. Pikuła, K. Jagielska, J. M. Łukasik (red.), *Wyzwania dla edukacji w sytuacji pandemii COVID-19* (s. *71–95*). Kraków: Scriptum.

Feifei, W., Boros, S. (2020). *Mental and physical health in general population during COVID-19: systematic review and narrative synthesis*. Available at: https://esi.ppk.elte.hu/media/da/ae/cd9bc771c15dc985efc4d2356f00c582159e0bc66e2131f9fa3353eed1a5/ESI_Absztrakt-K%C3%B6tet-3-dik-Sport-Tudom%C3%A1ny-Eg%C3%A9szs%C3%A9g-Konferencia-ESI-2020Vegleges.pdf (29.11.2021).

Gardoňová, K., Rybanská, V. (2021). *Obmedzená škola, obmedzení budúcnosť: Vplyv obmedzenia školskej dochádzky ako opatrenia proti šíreniu Covid-19 na populáciu slovneských detí.* Available at: https://www.vlada.gov.sk/share/isa/obmedzena_skola_obmedzena_buducnost.pdf (29.11.2021).

Győri, J. G. (Ed.). (2020). Shadow education – Opportunity for development [Special issue]. *European Journal of Education Research, Development and Policy*.

Hermann, Z. (2020). *How many students cannot reach online education?* Available at: https://www.mtakti.hu/koronavirus/hany-diakhoznem-jut-el-az-online-tavoktatas/12769/ (29.11.2021).

Hodges, C., Moore, S., Lockee, B., Trust, T., Bond, A. (2020). *The Difference Between Emergency Remote Teaching and Online Learning*. Available at: https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning (29.11.2021).

Inštitút zamestnanosti. Regióny Slovenska. (2021). Available at: https://www.iz.sk/sk/projekty/regiony-slovenska (29.11.2021).

International Labour Organization (ILO). (2020). *Youth & COVID-19: Impacts on jobs, education, rights and mental well-being*. Available at: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_753026.pdf (29.11.2021).

Katz, V. S., Jordan, A. B., Ognyanova, K. (2021). Digital inequality, faculty communication, and remote learning experiences during the COVID-19 pandemic: A survey of US undergraduates. *Plos one*, 16(2), e0246641.

Khalid, M. S., Pedersen, M. J. L. (2016). Digital exclusion in higher education contexts: A systematic literature review. *Procedia-Social and Behavioral Sciences*, 228, 614–621.

Komenského inštitút. (2021). *Veľký priskum o dopadoch pandémie na školstvo*. Available at: https://komenskehoinstitut.sk/prieskum-2021/ (29.11.2021).

Korzycka, M., Bójko, M., Radiukiewicz, K., Dzielska, A., Nałęcz, H., Kleszczewska, D., Fijałkowska, A. (2021). Demographic analysis of difficulties related to remote education in Poland from the perspective of adolescents during the COVID-19 pandemic. *Ann Agric Environ Med.*, 28(1), 149–157, DOI: https://doi.org/10.26444/aaem/133100.

Kovács, K. E., Szabó, F., Győri, K. (2021). *Desk research report in the project "Preventing post-COVID Social Exclusion Together". Partial report on education systems during the COVID-19 pandemic in Hungary* [unpublished].

Macintyre, R., Macdonald, J. (2011). Remote from What? Perspectives of Distance Learning Students in Remote Rural Areas of Scotland. *International Review of Research in Open and Distributed Learning*, 12(4), 1–16, DOI: https://doi.org/10.19173/irrodl.v12i4.847.

Myck, M., Oczkowska, M., Trzciński, K. (2020). *Closed schools: conditions of students for distance learning during the COVID-19 pandemic.* March 28, 2020, CenEA Comments. Available at: https://cenea.org.pl/wp-content/uploads/2020/03/komentarz_20200328_en.pdf (29.11.2021).

Nguyen, M. H., Gruber, J., Fuchs, J., Marler, W., Hunsaker, A., Hargittai, E. (2020). Changes in Digital Communication During the COVID-19 Global Pandemic: Implications for Digital Inequality and Future Research. *Social Media+ Society*, 6(3), 2056305120948255.

OEES. (2020). *The problem of digital exclusion in remote education*. Available at: https://oees.pl/wp-content/uploads/2020/04/Ekspertyza-3.pdf (29.11.2021).

Ostertágová, A., Čokyna, J. (2020). *Hlavné zistenia z dotazníkového prieskumu v základných a stredných školách o priebehu dištančnej výučby v školskom roku 2019/2020*. Dostupné online: https://digitalnakoalicia.sk/wpcontent/uploads/2020/09/Prieskum-IVP-0-priebehu-distancnej-vyucby-2020.pdf (29.11.2021).

Piotrowski, K., Wojciechowska, J., Ziółkowska, B. (2014). *A must-have of a Good Teacher. Teenage development. Late adolescence*. Place of publication: Warszawa.

Park S., Freeman, J., Middleton, C., Allen, M., Eckermann, R., Everson, R. (2015). *The Multi-layers of Digital Exclusion in Rural Australia*. 2015 48th Hawaii International Conference on System Sciences, pp. 3631–3640, DOI: https://doi.org/10.1109/HICSS.2015.436.

Pavlas, T., Zatloukal, T., Andrys, O. (2021). *Návrat žáků k prezenčnímu vzdělávání v základních a středních školách. Přístupy a postupy škol na konci 2. pololetí školního roku 2020/2021.* Czech School Inspectorate. Accessible from: https://www.csicr.cz/CSICR/media/Prilohy/2021_p%c5%99%c3%adlohy/Dokumenty/TZ-Navrat-zaku-k-prezencnimu-vzdelavani-v-ZS-a-SS-24-8-FINAL.pdf (29.11.2021).

Polat, R. K. (2012). *Digital exclusion in Turkey: A policy perspective*. Government information quarterly, 29(4), 589–596.

Powell, A., Bryne, A., Dailey, D. (2010). The essential Internet: Digital exclusion in low-income American communities. *Policy & Internet*, 2(2), 161–192.

Pusztai, G., Győri, K. (2021). Learning Alone – a kapcsolati beágyazódás vizsgálata a távolléti oktatás alatt [Learning Alone - examining relationship embedding during distance learning.]. *Educatio*, 30(1), 112–125.

Pyżalski, J. (2021). Mental health and well-being of young people during the COVID-19 pandemic - an overview of the most significant issues, Abused child. *Theory, Research, Practice*, 20(2).

Šepeľáková, L. (2021). *Desk research report in the project "Preventing post-COVID Social Exclusion Together". Partial report on education systems during the COVID-19 pandemic in Slovakia* [unpublished].

STADAT (n.d.) GDP per capita. Downloaded from: https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qpt014b.html?down=1100 (29.11.2021).
Šťastný, V. (2021). *Desk research report in the project "Preventing post-COVID Social Exclusion Together". Partial report on education systems during the COVID-19 pandemic in Czechia* [unpublished].
Štatistický úrad SR. Regionálny hrubý domáci produkt na obyvateľa. (2021a). Available at: http://datacube.statistics.sk/#!/view/sk/VBD_SK_WIN/nu3002rr/v_nu3002rr_00_00_00_sk (29.11.2021).
Štatistický úrad SR. Priemerná mesačná mzda zamestnanca národného hospodárstva v 1. štvrťroku 2021. (2021b). Available at: Priemerná mesačná mzda zamestnanca národného hospodárstva v 1. štvrťroku 2021 (statistics.sk) (29.11.2021).
Ústredie práce, sociálnych vecía rodiny. Nezamestnanosť – mesačné štatistiky. (2021). Available at: https://www.upsvr.gov.sk/statistiky/nezamestnanost-mesacne-statistiky/kopia-2020.html?page_id=1060197 (29.11.2021).
Velšic, M. (2021). *Dištančné vzdelávanie optikou rodičov*. Bratislava: IVO. Available at: https://www.ivo.sk/buxus/docs/publikacie/subory/Dist_vzdelavanie_deti.pdf (29.11.2021).
Walawender, P. (2021). *Desk research report in the project "Preventing post-COVID Social Exclusion Together". Partial report on education systems during the COVID-19 pandemic in Poland* [unpublished].
Zahorska, M. (2020). *Sukces czy porażka zdalnego nauczania?* Available at: https://www.batory.org.pl/wp-content/uploads/2020/09/Sukces-czy-porazka-zdalnego-nauczania.pdf (29.11.2021).