ORIGINAL PAPER





Log in or out of online schooling: the case of Romania

Anca Monica Marin¹D

Received: 10 November 2021 / Accepted: 8 July 2022 / Published online: 26 July 2022 © The Author(s), under exclusive licence to Springer Nature Switzerland AG 2022

Abstract

This paper is about access to and participation in education under COVID-19 circumstances, in 2020, for the case of Romania. The study is based on a desk research and a qualitative research. The purpose of conducting the desk research was to better understand the circumstances under which educational activities have been performed in Romania during 2020. The qualitative research was conducted between November and December 2020, with the representatives of disadvantaged educational units from several development regions of Romania. The following research questions guided the study: (i) what are the key factors influencing access and participation in educational activities during the pandemic in Romania? (ii) which are the coping strategies (if any) developed in response to the pandemic constraints? The respondents of the qualitative research are school principals of ten pre-university disadvantaged educational units. The conducted thematic analysis identified six themes, with various subsequent themes in each field. They are grouped as follows: (1) high instability of the educational environment; (2) distance learning without an online component, incorporating a discussion on access to equipment and internet; local administrative capacity; increased educational risks and inequalities and implications for student's assessment; (3) distance learning for children with special educational needs and children with disabilities; (4) coping strategies used in distance learning; (5) parents' participation in distance learning and (6) perceived difficulties and support needed during distance learning. The paper provides implications and future research directions in the last section.

Keywords Access \cdot Participation \cdot Distance learning \cdot Coping strategies \cdot Children with disabilities \cdot Pandemic \cdot Romania

Anca Monica Marin monicatoba@hotmail.com

¹ Research Institute for Quality of Life, Calea 13 Septembrie nr. 13, 050711 Bucharest, Romania

Introduction

The year 2020 brought about challenges around the globe in the education sector. Rough estimations include about 1.6 billion children, youth and their families affected by school closure in 188 countries (Gouëdard et al. 2020). Potential implications have already been outlined (Cahapay 2020; Czerniewicz et al. 2020; Daniel 2020; Kamanetz 2020; Parczewska 2020; Schleicher 2020; Smith 2021; Sun et al. 2020; UN 2020; UNICEF 2020a). Romania was also part of this global picture once schools have been closed in March until the end of the previous school year, in June. For the case of Romania, previous research identified several challenges for students and teachers, part of them similar to the ones outlined at global level (Botnariuc et al. 2020; Centrul National de Politici si Evaluare în Educatie 2020; Florian and Toc 2020; Hosszu and Rughini 2020; Institutul de Stiinte ale Educatiei 2020; Tartavulea et al. 2020; Velicu 2020; UNICEF 2020b). They pertain, among others, to the lack of access to equipment, a chaotic programme, more homework/more time needed for preparing online activities, lack of standards for students' assessment, impact on the most vulnerable groups, or role of the previously identified educational inequalities against the current circumstances of the pandemic.

The article chiefly considers two key pillars of inclusive education—access to and participation for all children and young people (UNESCO 2017, p. 13). The concept of access is used in a similar manner to the one stated in Alves et al. 2020, namely as including physical access, but also taking into consideration sensory, intellectual, economic and attitudinal barriers to education. Likewise, that of participation applies to a student's frequency of attendance as well as to the student's subjective perception of involvement and active engagement (Alves et al. 2020; Granlund 2013). Distance learning is traditionally defined as the instruction that is offered to those who are geographically distant. It can involve the delivery of learning material through various postal services to the use of learning tools available through the internet (Guilar and Loring 2008; Hung Lau and Lee 2020). Second, online learning has to do with learning that is mediated and accessed by using technological tools that are related to Web (Nichols 2003; Alves et al. 2020).

The paper starts by presenting the research background of the study, by highlighting pre-pandemic characteristics of the educational system in Romania. It continues by giving a short overview of the features of conducting educational activities during the pandemic. Next sections present the findings and discussions. Last part provides conclusive remarks and potential steps for further research.

SN Social Sciences A Springer NATURE journal

Research background

Research background: pre-pandemic characteristics of the educational system in Romania

The background of Romania's educational system before the pandemic highlights systemic problems regarding the provision of equitable and inclusive access to education. For all key indicators in the field of education, Romania registers values considerably different from the European ones (in a negative sense). Romania's strategic targets (Ministry of National Education 2016, p. 7), in relation with strategies at a European level, for the following three key indicators, regard (i) early school leaving (18-24 year olds); (ii) share of tertiary educational attainment (age 30–34) and (iii) adult participation in lifelong learning (age 25–64). The first two indicators are included in Europe 2020 Strategy, and the third one is part of the European Social Scoreboard. At the European level, the highest convergence seems to be concerning graduates of tertiary educational attainment (Stănculescu and Marin 2018). Although on a positive trend, Romania still has the third poorest performance concerning early school leaving rate and is far from reaching the national target.¹ The EU target is set at below 10%. For the year 2019, Romania records an early school leaving rate of 15.3, compared to a national target of 11.3 (set for 2020).² The early school leaving strategy states that this target "is based on a more realistic evaluation, of perspectives of economic growth, as well as the expected impact of implementing measures meant to reduce early school leaving" (Ministry of National Education 2016, p. 26). Still, the estimation does not seem to be very realistic, considering the estimates of the evolution registered so far. By gender, the rate is slightly higher for girls in Romania (15.8) compared to boys (14.9), whereas in the EU, the situation is the opposite.³ Discrepancies on a territorial level show that the early school leaving rate is almost double in development regions such as Centre, North-East and South-East compared to EU or euro area average.⁴

The same Strategy identifies the following target groups for achieving the national target: (i) children and youth that will be 18–24 years old in 2020⁵; (ii) children and youth from low socio-economic status; (iii) children and youth from the rural area and (iv) Roma population and other marginalized and under-represented groups. Within the objective of decreasing early school leaving rate by the implementation

¹ The indicator measures the share of the population aged 18 to 24 having at most lower secondary education who was not involved in any education or training during the four weeks preceding the survey. Lower secondary education refers to ISCED (International Standard Classification of Education) 2011 level 0–2 for data from 2014 onwards and to ISCED 1997 level 0-3C short for data up to 2013. Data stem from the EU Labour Force Survey (EU-LFS), online data code: SDG_04_10.

² Eurostat database, online data code: SDG_04_10.

³ Data for 2019, Eurostat database, online data code: SDG_04_10.

⁴ Data for 2019, Eurostat database, online data code: EDAT_LFSE_16.

⁵ Strategy on early school leaving identifies at least 92 thousand persons who should be supported by this Strategy.

of School after School type of programme, a recent analysis identifies the following groups of disadvantaged children: (i) children affected by poverty (in the urban and rural area); (ii) Roma children and children from national minorities (also outlined in Lauritzen 2020); (iii) children with disabilities and/or special educational needs (CES); (iv) children from public care system and (v) children whose parents left for working abroad (Ministry of National Education & World Bank, 2017). Moreover, the analysis conducted for the next programming period of EU funds shows that there has been little progress concerning education-related indicators, with respect to the start period for implementing EU-funded projects.

Another systemic problem is the low investment in the education system in Romania. Romania has the lowest public expenditure on education as share of GDP in the EU (data for 2018, Eurostat database, online data code: EDUC_UOE_FINE06). The law on education in Romania states that the share allocated to education should be 6%, yet this has never been actually enacted in budgetary allocations.

The quality of education in Romania remains poor, based on the scores registered in the 2018 OECD Programme for International Student Assessment (PISA). According to this survey, 40.8% of Romanian above 15 years old have difficulties understanding texts of moderate length and complexity or unfamiliar material (European Commission 2020, pp. 6–7). Even worse, some of the gains achieved between 2006 and 2015 have been reversed, especially in what concerns scores obtained in mathematics (ibid.).

Adding on, the gap between urban and rural schools' digital infrastructure remains significant. Romania's results on an EU-level survey show, in comparison to the EU-28 average (i) a significantly lower share of highly digitally equipped and connected schools at all ISCED levels (16% in Romania compared to 52% in the EU at ISCED 2 level)⁶; (ii) a lower share of own tablet and laptop usage (at ISCED 2 level); (iii) a lower share of students using a computer at school at least once a week—37% in Romania compared to 52% in the EU at ISCED 2 level; (iv) a lower share of teacher training in Romania at all ISCED levels and (v) a lower share of parents who feel 'highly confident' to teach their child to use the internet safely and responsibly at ISCED 2 and 3 levels. Still, there are also positive tendencies such as (i) a higher share of own tablet and laptop usage (at ISCED 3 level); (ii) a higher share of own smartphone usage in Romania (at ISCED 2 and 3 levels); (iii) a slightly higher share at all ISCED levels for high-speed connectivity (above 100 Mbps); (iv) higher confidence of students in Romania at ISCED levels 2 and 3 in all digital competence areas, with the exception of communication and collaboration; (v) a higher share of students (female and male) who code and program apps or programs at least several times a month (ISCED 2 and 3 levels) and (v) slightly higher confidence of teachers in Romania in all digital competence areas (ISCED 2 and 3 levels), except

⁶ Highly digitally equipped and connected schools have a high provision of digital equipment (laptops, computers, cameras and whiteboards) per number of students together with a high broadband speed. In relation to this indicator, Romania also has a lower share of digitally supportive schools at ISCED 2 and 3. Digitally supportive schools have existing school strategies in place to use digital technologies in teaching and learning and strongly promote teachers' professional development;

in information and data literacy at ISCED level 3 (European Commission 2019a, b, c).

Research background

Literature review

In general, a comparative analysis on decisions to close schools across European countries during the pandemic identifies two alternative discourses, with the view on schools as being places for infection (as key reason behind closing primary schools), in contradiction with the perception on schools as places for social supportive measures and caring (Lindblad et al. 2021). However, irrespective of the particular reasons behind school closure, previous studies conducted outside Romania show the magnifying educational inequalities during the school closure period of the pandemic.

Differences in socio-economic background on learning losses are revealed in various research endeavors. A systematic review of the impact of the COVID-19 pandemic on learning identified mostly studies from high-income countries, but also social and economic inequalities, in line with the focus of this study. Children from low socio-economic backgrounds tend to be particularly affected by forgone learning, alongside policy contexts related to high values of excess mortality, large number of days of school closures and stage of development of digital learning infrastructure (Betthäuser et al. 2021). Moreover, the learning losses have recently been confirmed by in-depth analysis of standardized test scores, in a work conducted for Netherlands (Haelermans et al. 2022). Notwithstanding, the learning losses are differentiated against social background, with parental education and income among factors (ibid.). In reference to another group addressed in our study as well, parents of children with disabilities bring out, based on the results of a research conducted in England, the detrimental effects on children's mental health (particularly those from the most deprived neighbourhoods) (Castro-Kemp and Mahmud 2021). They also point out negative effects on their own mental and physical health (particularly for ethnically diverse parents and for those whose children attend specialized settings) (ibid). Under the same vein, the widening digital-educational gap during the pandemic, together with effects on the psychophysical health of representatives of the educational community are outlined in research conducted in Argentina (Linne 2022).

Factors explaining exacerbating inequalities during the school closure under pandemic restrictions have been theoretically explained in association with Bourdieu's capital theory (Frohn 2021). Financial resources, cultural and social capital, all prove to be relevant in explaining educational disparities, based on an exploratory qualitative research conducted in Berlin, Germany. Teacher's increased commitment and intensified relationship work are identified as one of the coping strategies to overcome low level of student's resources (ibid.). Additionally, socio-economic background also influences the time spent by children on educational activities, as revealed by a study on time use conducted in UK, in relation to the first two months of lockdown (Andrew et al. 2020). Increased inequalities have been found to be growing especially for primary school students, in the same study (ibid.) Other studies also highlight importance, besides financial resources, of the educational level of households—a study conducted in Italy (Cordini and De Angelis 2021), together with area-based inequalities, in regard to school closure in rural localities, as outlined in a study performed for Chile (Bellei et al. 2022).

Overview of educational system in Romania during the pandemic

Throughout the pandemic context, Romania experienced one of the largest timeframe in which schools have been closed. Between March 11, 2020 and February 2, 2021, schools have been closed down for 108 days and only partially closed for 49 days (out of a total number of 157 school days), with none of the days with schools fully opened.⁷ Most likely this long time span will have a consistent impact on children and families' welfare. About three quarters of the parents interviewed in Romania, Portugal, Ireland and Spain stated they needed guidance on how to psychologically support the child during the isolation period (Vuorikari et al. 2020, p. 3). The high share of adults with low digital skills living in households with children (46% in Romania, compared to 28% in EU-27)⁸ add to the complex challenges experienced by parents during this background.

Romania enacted a new period of distance learning in the current school year, even if most European countries maintained open in face-to-face interaction with the educational system (at least for certain levels of education) until almost close to the winter holidays. Hence, distance learning represented in Romania rather the rule than the exception for the educational activities performed during 2020. It has been preceded by localized school closure in some counties, subject to the rate of infections at county or locality level. Consequently, the study mainly addresses head teachers' perceptions regarding access to and participation in distance learning education in Romania in 2020. In this article, distance learning is used to include both offline and online learning.

In order to have a summary of the circumstances under which schools reopened in September 2020, here is a brief outline based on the desk-review conducted by the author:

• 2800 educational units not connected to the internet have been included in a dedicated programme by the Ministry. This amounts to about 16% of the total number of educational units published in this school year concerning distribution of various working scenarios. The list of these units has been published on September 15, 2020. The programme is implemented based on a common memorandum between the Romanian Government and electronic communication operators "for ensuring internet connectivity urgently for pre-university educational units".⁹

⁷ https://www.unicef.org/romania/ro/comunicate-de-pres%C4%83/covid-19-pentru-peste-168-de-milio ane-de-copii-din-%C3%AEntreaga-lume-%C8%99colile-sunt.

⁸ Source: Eurostat, Individuals' level of digital skills (until 2019) [ISOC_SK_DSKL_I].

⁹ https://www.edu.ro/lista-unit%C4%83%C8%9Bilor-de-%C3%AEnv%C4%83%C8%9B%C4%83m%C3%A2nt-preuniversitar-de-stat-din-romania-ce-vor-fi-conectate-la-internet-%C3%AEn

- 250,000 tablets connected to the internet should have been delivered to students and teachers by September 14.¹⁰ None has been delivered as the procurement procedure was not completed on time.
- 836 schools still have toilets in their yard.¹¹ Out of these, 347 schools and kindergartens have been declared eligible to apply for modernizing their sanitation facilities with European funding on October 5. Part of the rest of the schools has been included in modernization projects funded from the State Budget by the Ministry of Education.¹²
- More than half of the parents with at least one child enrolled in pre-university educational system experiences difficulties (or simply lack any help) in supporting children at home during online classes (MKOR 2020).
- The option of continuing distance learning at the beginning of the school year 2020–2021 is considered poorly adequate by a large share of the parents, irrespective of the educational level of their children. Only 14% of parents choose distance learning, whereas less than 2 out of 10 parents consider this organization as appropriate for their children (MKOR 2020).
- For fear of getting infected with the new COVID-19 (or for other reasons), 150 teachers have requested early retirement, 300 of them are already infected and placed in quarantine, and 100 are hospitalized (data at the beginning of the school year).¹³
- In 43 localities, the incidence rates computed based on information with two weeks prior to school reopening are higher than 3 to 1000 inhabitants (condition to analyse whether online education should be introduced at locality level).

Under all these circumstances, school started directly in the online scenario for about 100 thousand students out of a total of 3 million children at the beginning of the current school year.¹⁴ Data from the Ministry of Education announced for school beginning (September 11, 2020) the following distribution among educational units: 12,610 educational units in S1—green or face-to-face scenario (about 71%), 4.892 educational units in S2—yellow or hybrid scenario (28%), while 238 go directly to S3—full online version (1%).¹⁵ Here, there is a need to explicitly introduce definitions of the working scenarios:

¹⁰ https://www.edupedu.ro/breaking-nicio-contestatie-nu-a-fost-depusa-la-licitatia-pentru-cele-3-loturi-de-tablete-scolare-spune-sefa-onac-pe-9-septembrie-se-poate-semna-contractul-cadru-cu-orange-pe-10-este-termenul-contr/.

¹¹ Declaration of the Ministry of Education on September 5.

¹² https://www.edupedu.ro/lista-347-de-scoli-si-gradinite-care-au-latrina-in-curte-pot-aplica-din-octom brie-pentru-decontarea-unor-containere-sanitare-mobile-care-vor-fi-amplasate-tot-in-curte-ministruleducatiei-acum-3/

¹³ https://www.digi24.ro/stiri/actualitate/educatie/prima-zi-de-scoala-dupa-sase-luni-de-pandemieincepe-cu-incertitudini-temeri-si-lipsuri-1367695

¹⁴ Ibid.

¹⁵ Situația scenariilor—la nivel național—privind începutul anului şcolar 2020–2021 | Ministerul Educației şi Cercetării.

- S1 represents the green scenario, daily face-to-face participation of pre-school children and students in education units,
- S2 represents the yellow scenario, daily face-to-face participation of all preschool and primary school children, students from eight and twelve grade and partial participation of the rest of children (rotation at 1 or 2 weeks), and
- S3 represents the red scenario, participation of all pre-school and school-aged children in online activities. The same information source also reports a number of seven schools using both hybrid and mix versions of the scenarios.

In a nutshell, the start-up of the new school year has been marked again by high unpredictability, unfinished preparatory work for ensuring connectivity both at the level of schools as well as that of students, and significant challenges on behalf of the parents.

Starting with November 9, 2020, all pre-university educational units suspended educational activities with physical interaction and all learning process has been conducted using the online system.¹⁶ The framework methodology for conducting these online activities has been the same as the one adopted at the beginning of the current school year. This methodology provisions specific responsibilities for each stakeholder, including parents, as well as regulations for the processing of personal data information. In the corresponding legislative framework, there is no reference or detail related to the child's age on the responsibilities of the parents and, noteworthy, lack of participation in online activities is considered an absence and marked in the catalogue, except "for justified reasons or situations", which are not detailed further. In the case that online educational activities cannot be implemented, County School Inspectorates/School Inspectorate of Bucharest municipality and leadership of pre-university educational unit are compelled to ensure the educational resources for students who have no access to information technology and internet.¹⁷

Extensive quantitative research conducted on more than 6,000 teachers from urban and rural areas of Romania has been carried out online in the period covering the state of emergency, namely the first month of the outbreak of COVID-19 pandemic—March 25 to 31, 2020 (Institutul de Științe ale Educației 2020; Botnariuc et al. 2020). Although research limitations are acknowledged by the authors of the research (like a poor representation of teachers from disadvantaged schools, or of those who lack internet connection or digital skills), the cited study brought into the spotlight several issues: (i) discrepancies in educational performances increased; (ii) previous ICT experience of teachers plays a major part; (iii) most of the platforms used by teachers are asynchronous¹⁸; (iv) the most frequently used applications for supporting online or distance learning education in communicating both

¹⁶ Ministerial Order no. 5972/November 8, 2020 for suspending activities.

¹⁷ Ibid.

¹⁸ Asynchronous education means it is conducted in a virtual learning environment, in which students and teaching staff are not simultaneously connected (Order no. 5545/September 10, 2020, for approving the framework Methodology on implementing teaching activities through technology and internet, and on processing personal data).

with the classroom as well as individually with each student are the simplest ones like WhatsApp or Messenger (91%) or even phone calls (83%) and they are also asynchronous. Additionally, the key challenges expressed by teachers for conducting online education activities are (a) lack of instruments for class management, feedback and assessment; (b) technical challenges like platforms that must be installed and are not working properly; (c) lack of pedagogical support for completing learning activities that can be considered efficient and attractive by all students; (d) lack of suitable instruments for teaching-learning-evaluation for their discipline; (e) lack of educational content (digital resources) in the field of their discipline; (f) lack of a performing computer and (g) lack of necessary time for understanding and adequate use of instruments and digital resources. On the part of students, several technical difficulties are enumerated—(a) complex connection requirements for some platforms, access restrictions, browser limitation, need for installing supplementary programmes; (b) lack of familiarity for learning with the support of new technologies; (c) insufficient level of digital competences; (d) lack of a computer/tablet/ smartphone; (e) lack of a well-structured programme, which makes room for gaps in learning; (f) lack of control and constant monitoring of their activity; (g) limited internet access and (h) lack of adults' support/interest/prohibitions.

Methods

Sample

The study is based on a desk research and qualitative research that I conducted between November 4 and December 17, 2020. The purpose of conducting the desk research was to better understand the circumstances under which educational activities have been performed in Romania during 2020. It includes an overview of the background of the educational system, prior to the pandemic outbreak, as previously outlined. The respondents of the qualitative research are school principals of ten pre-university educational units. All selected schools are disadvantaged on two key criteria: (i) lack of internet connection (based on data provided by the Ministry of Education in September 2020)¹⁹ and (ii) list of disadvantaged schools eligible to receive European funding, which includes poor academic performance, poor training of teachers, as well as the level of locality development.²⁰ In total, the list covers more than 3000 units which are disadvantaged on these two criteria, that have been

¹⁹ The list of 2,800 units to be connected to internet based on a Memorandum on "Ensuring internet connection of state pre-university educational units through the voluntary support programme", Lista unităților de învățământ preuniversitar de stat din Romania ce vor fi conectate la internet în baza Memorandumului "Asigurarea conectării la internet a unităților de învățământ preuniversitar de stat din România prin programul voluntar de sprijin" | Ministerul Educației și Cercetării.

²⁰ Schools included in the list of eligible schools for the programme of Motivated teachers in disadvantaged schools and School for everybody, Anexa 1_Ierarhizare scoli si gradinite.xlsx (fonduri-ue.ro). The list includes a total number of 2,817 educational units, either with as individual legal entities, or assigned to other schools.

considered as relevant for the constraints posed by the pandemic for conducting educational activities.

Most part of the schools selected is located in the rural area, and only two schools are placed in the urban area. The schools from the urban area are educational centres for inclusive education, subordinated to the County Councils. This type of schools enrols a large share of students with special educational needs and/or students with disabilities. The rest of the schools, from the rural area, are all subordinated to the local authority. The selected schools cover eight counties and four development regions of Romania: Centre (Alba, Mures and Sibiu), South (Ialomita, Călărași), North-West (Cluj) and North-East (Vaslui). The total number of counties in Romania is of 41 and there are eight development regions. The total number of schools included in the list to be contacted included 22 educational units. The sampling criteria included geographical diversity (development region and county), typology of institutions (both centres for inclusive education and mainstream schools) and types of disadvantage (Internet connection and other socio-economic factors). The rest of twelve schools either could not be contacted by phone, or refused to participate in the research. In total, three school representatives refused to participate. The total list of twelve disadvantaged schools that did not participate in the research cover educational units from the following counties and development regions: West development region (Arad, Caraș-Severin), North-East (Bacău), North-West (Bihor, Sălaj), South-East (Buzău) and Centre (Brașov).

Instrument data collection

The interview guide includes mainly school principals' opinions on the advantages and disadvantages of conducting distance learning education, on their needs for infrastructure development and training, on the feedback collected from students, teachers and parents, how technology is used in "traditional" face-to-face schooling, what was the impact registered on early school leaving or on general school performance. All interviews have been conducted by phone, and each lasted about twenty minutes. The researcher has simultaneously noted the interviewees' opinions and data provided on key topics. This study was conducted under United Nations Evaluation Group (UNEG) rules and standards of conduct. Before starting an interview, the representatives were informed about the context and topics of the discussion, as well as about the purpose of the discussion and how their opinion will be processed, ensuring confidentiality. Informed verbal consent was obtained from all participants in the study, before starting the discussion. For the external reliability of the research, the questions were directed to the participants in an impartial manner. Interviewees have been actively listened to and encouraged to express their opinions/problems, without exception. Findings are anonymized; on their presentation, only the respondent's gender (F for female and M for male) and residence area are presented.

Analytic plan

The following research questions guided the study: What are the key factors influencing access and participation in educational activities during the pandemic in Romania, in disadvantaged schools? Which are the coping strategies (if any) developed in response to the pandemic constraints?

Based on transcripts completed for each interview, a thematic analysis has been conducted. The analysis has been carried out manually by the researcher, following the key topics highlighted by previous studies and finding topics/issues that occur more frequently in respondents' answers. For external validity, research results are interpreted together with the previous research results and similarities and differences are outlined. For internal research reliability, direct citations of the participants are included in data analysis and interpretation.

The analysis identified six themes, with various subsequent themes in each field. They are grouped as follows: (1) high instability of the educational environment, including aspects related to lack of information and poor coordination with higher authority levels; (2) distance learning activities without an online component, incorporating discussion about access to equipment and internet; local administrative capacity; increased educational risks and inequalities and implications for student's assessment; (3) distance learning for children with special educational needs and children with disabilities; (4) coping strategies used in distance learning (distribution of printed materials; training activities); (5) parents' participation in distance learning, underscoring inequalities and involvement and (6) perceived difficulties and support needed during distance learning, bringing out topics related to the quality of received equipment, the share of screen-based activities, school opening, lack of socialization and security issues. Therefore, the first research question, regarding key factors, is addressed through the themes on the high instability of the educational environment, type of distance learning activities and corresponding issues related to access to equipment and internet, local administrative capacity, as well as by topics regarding differences in relation to parents' involvement and perceived difficulties. The second research question is addressed mainly through the fourth identified theme, on coping strategies used in distance learning, including local authorities' support for performing educational activities during the pandemic. Excerpts from the interviews are provided as an illustration of each theme.

Results

High instability of the educational environment

First, all interviewees expressed their concerns related to the high instability of the educational environment. The flows of information between central, county and local levels did not seem to work properly, especially in what concerns the timing of entering the online scenario or support concerning the diversity of available educational platforms. Starting with November 9, 2020, all pre-university educational units suspended educational activities with physical interaction, and all learning

processes have been conducted using the online system.²¹ The framework methodology for conducting these online activities has been the same as the one adopted at the beginning of the school year. This methodology provisions specific responsibilities for each stakeholder, including parents, as well as regulations for the processing of personal data information. In relation to the responsibilities envisaged for students and parents, there is no reference or detail related to the child's age on the responsibilities of the parents. Noteworthy, lack of participation in online activities is considered absence and marked in the catalogue, except "for justified reasons or situations", which are not detailed further. In the case that online educational activities cannot be implemented, County School Inspectorates/School Inspectorate of Bucharest municipality and leadership of pre-university educational unit are compelled to ensure the educational resources for students who have no access to information technology and internet.²² This has again not happened in all cases, as detailed below. The high degree of uncertainty is amplified by the diversity of available online platforms, with no clear methodological guidance on the choice criteria, available for the teachers.

I have been waiting to have an official address from the School Inspectorate that we enter the online scenario, but nothing came on time so far, I heard it from TV. (School principal, F, rural area)

It has been something very fuzzy, there have been so many educational platforms, we didn't know what to choose for our children, we tested several platforms, and we chose the free version of kinderpedia; the technical part to download and print the lesson doesn't work, we are talking about parents who don't have the necessary money to pay this or the tablet. (School principal, F, urban area)

Distance learning activities without an online component

Second, a large part of this period (or the previous one, in the school year 2019–2020), educational activities have been conducted without the requested equipment for those lacking access to technology and internet. All educational representatives signalled significant delays in providing tablets and necessary equipment for students. The promised tablets only arrived starting on December 8²³ and by the latest updated information, their distribution has not been over yet across the whole country by December 14.

The problem of access to tablets is also connected with the level of involvement from part of the local authority. Part of the school principals reported that even though they would be willing to apply for external funding in order to receive the necessary tablets connected to the internet, the eligible applicant is the local council, or the mayoralty, which is currently assessed with a poor level of administrative

²¹ Ministerial Order no. 5972/November 8, 2020 for suspending activities.

²² Ibid.

²³ https://www.isjcj.ro/wp-content/uploads/2020/12/9.12.2020_-Comunicat-de-presa-I.S.J.-Cluj.pdf

capacity. Other leaders applied and asked for funding from various sources, yet the tablets have not arrived in sufficient number to match the needs (by November–December, when the interviews were conducted). It is therefore most likely that the tablets arrived in sufficient number only after the winter holidays (January 11, 2021) or even in February, like in the example below. This further means that a large part of the school year students lacked access to online learning for about one year.

At the level of the whole county, Mures County Inspectorate asked for 21,000 tablets and received only a little above 9,000, and they distributed them the best they could, how they knew, but nobody knows madam when the others will be received, this is not in our hands anymore, it is related to the ones in the Government ...

Together with the local authority, we submitted a project based on Order 144²⁴ and with this project, we would cover the needs of all the children in the commune; but for the time being, the project is just submitted; if it is a winning project, the tablets would arrive only in February and hence, it takes some more time ... (School principal, M, rural area)

Further on, even if the tablets connected to the internet and with all necessary educational platforms arrived, there are still students who experience problems with internet connectivity. At a national level, about 13% of all students (400 thousand from a total number of 3 million) still lack internet connection. Estimations advanced a term of about 2 years in which this gap could be covered. Projections also envisage developing a free internet voucher programme for children from households who cannot afford an internet subscription.²⁵ Data from May 2020 on students lacking access to the internet summed to about 200 thousand, yet there is no clear image on the quality of internet signal. According to such statistical data, about 1 in 10 children lacked access to the internet in 2019. In this perspective, the highest shares are registered in the counties of Bacau (20.5%), followed by a group of counties where the share is placed at about 14%-Iași, Vaslui, Călărași, Botoșani and Vrancea. Of these, Călărasi and Bacău are also mentioned as counties with a high early school leaving risk (Ministry of National Education, 2016). Noteworthy, half of Romania's counties (22 counties) registered shares above 10% of children lacking internet access.²⁶

We kept on reporting in SIIIR²⁷ the need for tablets, we said that we would need 600 tablets, and we received none. There are fewer households than

²⁴ Governmental Emergency Ordinance no. 144/2020 (issued on August 24, 2020) provisions allocation of European funds for enabling students' access to the online learning process.

²⁵ Source: representative of the Ministry of Education in a public declaration: https://www.edupedu.ro/ 400-000-de-elevi-din-totalul-de-3-milioane-nu-au-acces-la-internet-a-declarat-subsecretarul-de-stat-inministerul-educatiei-discutii-pentru-implementarea-unui-program-de-vouchere-pentru-internet/

²⁶ Computations made by the author based on the data available from the Ministry of Education and Research and the number of students in each county from the National Institute of Statistics for 2019, Tempo online.

²⁷ Abbreviation used for Integrated Informatics System of Education in Romania.

600, but we have households with many children in our community, there are 4, 5 or 6 children in a family. We organized with the G-suite platform, we have everything we need in the school, but there is no one to hear us at the other end of the chain, children don't give us any signal. The infrastructure for internet connection is practically non-existent in our community. Mobile phone companies are not interested in creating the fibre optics infrastructure because there are no subscriptions, and the signal is not very good. (School principal, M, rural area)

Lots of households in our area don't have a good internet signal. Children have to go out of the house so that they can hear us, and it's cold now, it's winter, others still find one room of the house where the internet signal is better, usually the room which is closer to the street. (School principal, M, rural area)

With respect to the ongoing problem of lacking access to technology and proper internet connection, part of the interviewed educational representatives expressed their worries that this form of distance learning will only increase the risk of school dropout or the rate of early school leaving and worsen educational performances. Yet, there is also a part of educational units' leaders that said that no correlation is envisaged as "everyone participated in one form or another", or that "now it's even better for children staying far away from the school, they can do their work in the household and now have more time for homework than they did before".

Our results at a school level are very poor, they don't succeed in having a mark of 5 at the national evaluation exam, although I don't think this is relevant because you can enter highschool even if you have a mark under 5 ... This situation of online education can only discourage our children, 90% of them don't have the equipment to work with. Even when we worked with them face-to-face the results were poor, they can only be worse now. (School principal, M, rural area)

It's very hard to explain to a child who has no good signal in his/her area, they will soon get oversaturated, they can't hear us. (School principal, F, rural area)

Running distance learning activities without an online component had also an effect on the type of conducted assessments. It is difficult to estimate a quantitative impact of all these periods as the assessments have been done now differently, and teachers have used a method of assessment labelled as a more "understanding" one. This would mean that students with poor performance in face-to-face learning perform better or similar in assessments conducted through online education means. Notwithstanding, most of the schools selected in the sample are disadvantaged in terms of poor educational performances.

For those who had poor educational performances, you can imagine that now in online we have been more understanding with them because we didn't set the same standards as in face-to-face schooling. (School principal, M, rural area)

SN Social Sciences A Springer Nature journal

Distance learning for children with special educational needs and children with disabilities

On the challenges' side, special attention should be paid to the group of children with special educational needs and children with disabilities. Selected schools that enrol this group of students (separate from mainstream schools) were included in this study. In Romania, they are subordinated to the second-tier level of public authorities-county councils. This is an important detail, as County Councils have a higher financial capacity than most of the rural mayoralties. They have ensured access to tablets for children enrolled in this type of schools. Nonetheless, challenges have also been present in delivering educational activities. The opinions expressed regard a rather negative impact on them as school principals concluded that only older children with mild disabilities succeeded in increasing their digital skills and even ensuring proper learning of the curriculum by using online education. For the rest of them, several problems have been identified, varying from lack of access to technology and internet connection (especially for children from the rural area attending the school in the urban area). School principals also reported reluctance of signing a bailment contract (parents with low socio-economic status afraid that they will have to pay the tablet in case their child will break it up), lack of adequate open educational resources for them, lack of methodological supervision on which and how to use the online educational platforms, etc.

We succeeded in providing them with all the necessary equipment, but a child with special educational needs cannot use a tablet. We use whatever we can – individual material, worksheets, counselling through WhatsApp...

Children succeeded in acquiring the necessary skills to use the platform but only older children, above 14 years old, without severe disabilities, those are the ones who can learn writing, reading and have indeed acquired better digital competences. Those with severe disabilities have not been able to have progress on this side. (School principal, F, urban area)

The challenges experienced by children with disabilities and/or special educational needs during online education have been signalled by governmental agencies to the Ministry of Education too. They include, similar to the ones previously mentioned, the fact that online education is not adapted to all types of disabilities and deficiencies, didactic materials are not adapted or insufficient for this group of children, there are no specific guidelines or coordination available for parents, the types of assessments conducted are not adapted, there is a small number of worksheets, and they are not readjusted as content, or the fact that lack of socialization has unwanted behavioural effects. Yet, the same source states that pupils with visual deficiencies considered the online type of education as a positive experience (ANDPDCA 2020, pp. 2–3).

Coping strategies used in distance learning

Part of the educational representatives identified several coping strategies in these challenging circumstances. Some of them explain that they mapped all the children in the community by household and age/educational level together with the

availability of devices. Based on this information, the timetable for synchronous lessons has been adjusted accordingly. Others used various non-online activities like the support provided with worksheets distributed by the social worker (for children with special educational needs and/or children with disabilities). Additional support measures for this group of children include creating a special online support group and allocation of more teaching hours from the support teacher. Support teachers connect online with the students after classes, as a help for their homeworks. Homeworks for this group of children are different from the rest of the students. Others used the administrative personnel of the school (cleaning men and women) or professors from primary school to distribute the worksheets across the community.

I received fewer tablets than requested, so I thought about how to do it. We mapped all the children, from kindergarten till eighth grade, and I rescheduled the timetable. In the morning are the older students, and in the afternoon the younger ones, after 5 o'clock, when parents are at home. Children from kindergarten enter for one hour again in the afternoon, they have other needs, they only enter to discuss and see their educator. (School principal, F, rural area) We had special aid from the social worker – we distributed worksheets once a week, we thought that we would stay in isolation only two weeks, but now it prolonged and we recover them more difficultly, now it's time to recover them from everybody; we also distributed teachers' feedback with the worksheets brought by the social worker. I guess that we will still work with the worksheets until the end of this month [November 2020]. (School principal, F, rural area)

Other coping strategies included, for those who received at least part of the tablets, an "adjustment" period when teachers used tablets in face-to-face interaction so that children can get used to them. For others, where tablets arrived after entering online education in this school year, another strategy included inviting one by one, parents and children at school in order to get acquainted with using the tablet (in case they experienced difficulties).

On the advantages side, almost all educational representatives declared that teachers enrolled in their schools already benefited of adequate training provided by various forms/providers, including courses held through the national-level project—CRED²⁸ or Teaching Staff House. It seems that the trainings from the summer period as well as the "on-the-job" training during the state of emergency and state of alert acted as a good resource in this respect.

In my school, I only have one unqualified teaching staff but even he succeeded in connecting and working on the online platform. (School principal, M, rural area)

²⁸ Relevant curriculum, open education for all (CRED) project is a large, national-level project offering digital–educational resources and training for 55,000 teaching staff members from primary and gymnasium schooling Despre projectul CRED—Curriculum relevant, educație deschisă pentru toți (educred. ro).

I personally made a training with all the teachers in my school. As a positive thing, I can tell you that after this period it is for sure that the teachers' digital skills increased a lot. Not necessarily those of children, because for them it was easy, they already knew, they were playing all the time on their mobile phones, but for teachers surely did. (School principal, M, rural area)

Local authorities' support in identifying and implementing coping strategies is notable. As stated previously (unde the topic of distance learning activities without an online component), applying for funding for acquiring the necessary equipment has proved to be one of the coping strategies at local level, although the desired outcome is not always on the quick response side. Additionally, central-level policy lines like broadband connection of educational units are also important policy responses to the demanding circumstances posed by the pandemic. Specific funding lines have been allocated by ministries for these two purposes: equipment (tablets) and Internet connection. Besides, particular coping strategies are mentioned by stakeholders in relation to adapting distance learning for children with special educational needs or children with disabilities (under the preceding subtopic, on distance learning for children with special educational needs and children with disabilities).

Parents' participation in distance learning

The fact that online education involves a serious shift of responsibilities on parents' side can only increase the inequalities in educational opportunities for children from a disadvantaged background. This is, in particular, true for younger children, with poor access to technology and internet connection. On the other hand, once these problems will be resolved (yet this has not happened during the analysed period), access to technology and online educational resources can act in a reversed sense, as an equalizer. Children from remote areas can have access, via online courses, to the best teachers or educational resources, within and outside Romania. To give only one example, a group of the best students in mathematics decided to teach students from the eighth grade for the national evaluation exams for free, in order to help them fill in the learning gaps from this period. Additionally, other free high-quality educational resources are available online for studying, for example, foreign languages.

Adding on the positive side of the shift of responsibilities on the parents' side, it is likely that in some cases parents actually had an opportunity to better understand and connect with the learning process. Especially when the student has more than one teacher (as is the case also with primary school teachers), the parent can experience different teaching methods in direct interaction with his or her own child. His/her feedback on how the educational activities are actually performed can now be better recorded.

Perceived difficulties and support needed during distance learning

Still, on the challenges' side, some school principals expressed opinions not only regarding the availability of technology, mainly tablets, but also related to the quality of the received equipment. Part of the tablets received from the local authority or other sources has not been considered of good quality, and this had an impact on the poor connection or lack of availability of video sharing with students during online classes. Additionally, in order that students would best see and understand better complex demonstrations in mathematics or physics, for example, they would need laptops as equipment. Additionally, headteachers said that, at least for a part of older students, a laptop would definitely increase their interest in online educational activities. Teachers also stated that the type of internet connection–connection bandwidth is also important so that the information can be meaningfully transmitted via webcam, even though the school has acquired high-quality webcams.

As classes are now all online, part of the interviewees mentioned also increased dependence on activities conducted based on screen versus "screen-free" activities. Some classes like painting or sports, or personal development that were more on the "relaxation" part of the school schedule are now all conducted online. This further relates to a monitoring system put in place for the teachers. Only if all classes are reported as conducted online, teachers would be remunerated for them. Additionally, most likely homework or other activities requested from students are also closely monitored with the support of the online platform. Consequently, the time spent by every child in front of the screen is about 6 h. Yet, this time also depends on the child's age, type of school, profile of the school or whether the child has or not special educational needs. In this latter case, children also connect, after classes, with the support teacher in order to do their homework. Furthermore, some afterschool programmes also adapted their educational offer and moved all the support for homework in online. In this way, children from all around Romania could benefit from online support in the form of after-school programmes, irrespective of their geographical location.

For children, the time spent in front of the tablet is quite long - 5 or 6 classes on the tablet; before this, the child had one hour of drawing or sports to be used as recreational activities, now even these are online, so the child remains in front of the tablet. (School principal, M, rural area)

A separate group has been created for the children with special educational needs. The teacher from the class gives them differentiated homework, posted individually on the platform, and support teachers enter online every day after classes to help them with the homework. I think that the responsibility for the online content belongs to the teacher who is responsible to adapt the content to what it's written individually in each school orientation certificate; there are no "general" open educational resources for children with special educational needs. (School principal, M, rural area)

Regarding school opening, opinions are divided between the need and the wish to physically return to school, on the one hand, and the common responsibility to lower the infection rate at locality or county levels, on the other hand. School leaders' opinions are, however, nuanced between the situation in each locality as well as on the availability of space to ensure physical distance between students, which is possible in the case of large rooms with a small number of students in some rural areas (coupled with a low rate of infection at locality level). Nevertheless, the traditional model of household composition plays an important part in rural Romania. In the communes where the rate of infection significantly increased, the traditional model of living together with the grandparents plays as a significant predictor for the opinion of whether to return physically to school or not, in a negative manner.

I tell you frankly that we all want school reopening, and maybe students, teachers and parents won't be hurt. But it is possible to bring home the virus to their grandparents. In our commune and I guess in others as well, most children live with their grandparents. We surely want school reopening, but we don't want to lose loved ones. (School principal, M, rural area)

Other mentioned challenges included lack of socialization, although this fact is nuanced between urban and rural areas, between the start period of school closure and the end period, right before the beginning of the winter holidays. In the rural area, at least in the beginning, children continued to meet and play with each other, in the neighbourhood or even in the sports facilities available in some communes. Yet, as the rate of infection grew and the weather turned colder in December, interviewed headteachers mentioned that children gradually stopped playing together, also as a result of the presence of the police forces on the streets. Police forces have been mobilized on the streets, especially in communes where the infection rate followed an upward trend.

In the beginning, children used to socialize with each other, went out and played together with everybody else ... In the first phase I used to see them on the sports playground, it is right in front of my house, they used to go out and play.

But now, they don't go out anymore; in our locality, the incidence rate is now 8%, and the police is everywhere on the streets. (School principal, M, rural area)

Children meet each other at the shops, but you have to know they are still cautious; they talk with each other from a large distance. I must tell you I haven't seen them lately as classical children groups to go and play, during the breaks, they are now more online with all these social activities. (School principal, M, rural area)

One of the impact estimates in terms of school dropout "can only be seen in figures next autumn", but this timeline could prove as being too long for recovering the already increased educational inequalities or risks. Received answers indicate this challenge predominantly with children 15 years or above. Nonetheless, learning losses experienced by children of all ages might also become visible only upon physical return to school. Yes, I think this situation has a negative impact on the rate of early school leaving, but this will only be seen in the figures next autumn. I can tell you that with a certain number of children we already lost contact with in September, about 20 children no longer come to school, now they are 15 or 16 years old, and they would rather work now. If they have their own children, for them it is very important to make some money for the family. Some of them are 18-19 years old in the ninth grade or 21–22 years old in the twelfth grade, and it's very difficult to motivate them to come to school. (School principal, F, urban area)

At the same time, privacy and security issues can occur, and protection of personal data needs to be ensured. The fact that some educational platforms allow students (and not teachers) to take out from the meeting specific students or to "mute" microphones provided they connect earlier and start the meeting has actually represented a recurrent challenge for a part of the teachers. Further on, the student can also "leave" a meeting or a class without giving too much option for the teacher to try resolving the situation on the spot.

Discussion

The study puts under the spotlight key issues registered by the educational system during the COVID-19 age in Romania, in relation to similar challenges registered at an international level. Its aim is to support policy change to bring about improved educational opportunities for pupils enrolled in school in Romania. It adds knowledge to the existing accumulated evidence by collecting information after an extensive period of distance learning education in Romania. It focuses on the issues identified by representatives of disadvantaged schools. Consequently, it highlights problems that directly affected students from the corresponding vulnerable groups, alongside educational staff teaching in these schools.

This study shows that the readiness of schools in offering distance learning depends on the school and family resources available in line with the previous studies (Hung Lau and Lee 2020; Mohan et al. 2021). Availability of resources and technology, and digital literacy level, of students and teachers are reaffirmed, alike issues on the similar topic (Marković Krstić and Milošević Radulović 2021; Sari and Nayir 2020). Parents' involvement is reaffirmed. Nonetheless, the picture on parents' involvement is limited to what the headteachers mentioned, although previous inferences also signal differentiation based on child's age (Thorn and Vincent-Lancrin 2022).

The paper draws attention to the importance of other factors, financial and administrative capacity of the local authority on which the school depends. Consequently, these factors can heighten disparities among schools. A single educational unit (school) in Romania is in relation with multiple stakeholders at a local, county (School Inspectorate) and national (Ministry of National Education) level. Centres for inclusive education are in relation with other entities at a county level—County Council and School Inspectorate. Therefore, any proposed measure to address the challenges must be placed under redefining the school relationships between national-, district- (county-), local and school-level stakeholders (Håkansson and Adolfsson 2021) and supporting local authorities in policy implementation (Bokayev et al. 2021). Mismatch between funds' allocation and field distribution of equipment is mentioned, similar to other studies (Bokayev et al. 2021).

Study findings showed that there has been continuity of limited physical educational services for the most vulnerable and at least partial parental engagement (OECD 2020). Nonetheless, for re-thinking the needed changes, all aspects should be considered, as regard (i) curriculum: what to teach, (ii) pedagogy: how to teach; (iii) organization: where and when to teach, in line with Zhao and Watterston (2021). The research results also highlighted the importance of diversified online and offline activities as part of distance learning activities (Hung Lau and Lee 2020). A combination of both online and face-to-face learning opportunities must be envisaged depending on the groups of affected children, differentiated by age (or curriculum), as well as by several factors that can have a direct influence on restrain of persisting educational inequalities, as is the case with the socio-economic background.

The relevance of the topic is increased by the already-proven significant correlation between the importance of socio-economic background and results in PISA scores, measuring the quality and performance of educational systems. Additionally, a recent EU report states the same type of correlation in relation to pupils' scores in computer and information literacy as well as scores in computational thinking (European Commission 2020, p. 28). The same source cites that, besides socio-economic status, migrant background and speaking a different language than the test language at home is negatively correlated with scores in computer and information literacy and computational thinking. Moreover, the current policy projected interventions like a standardized digitalized national-level testing of students²⁹ will most likely reveal once more similar factors in relation to access, participation and, further on, results of the evaluation. A supplementary pressing practical implication is to address the learning losses accumulated as a result of the pandemic, with special attention paid to students and families from vulnerable groups (Reimers et al. 2022).

In short, the conducted analysis highlights several challenges experienced in Romania during distance learning education, aligned with previous studies in terms of digital literacy and competences, equity and inclusion and privacy and security (van Der Vlies 2020). It reaffirms findings aligned with the previous studies and highlights the need to integrate corresponding responses into enlarged social policy efforts (De Coninck et al. 2022).

²⁹ https://www.edupedu.ro/profesoara-despre-echipamentele-pentru-testarea-standardizata-nu-am-cumsa-furnizez-echipamente-si-conexiune-pentru-toti-elevii-directorul-companiei-care-detine-platformasa-i-roage-pe-copii-sa-v/.

Conclusions

The study reaffirms the finding related to the fact that access and participation in distance learning educational activities depend on the availability of equipment and internet connection, but also on residence area, child's age, type of enrolled school, family resources, and local and national administrative capacity.

The main limitations of the study relate to the small number of conducted interviews as well as to the lack of face-to-face interaction when conducting the interviews. Nonetheless, as they reflect opinions of school principals from various counties and the most disadvantaged schools, they can be used as an informative base to interpret meaningful data about the challenges of the educational system. It also provides a good basis to generate new questions for further investigations. Furthermore, the author of the text is aware that not all factors affecting distance learning education have been identified. They are resumed to the ones expressed by the respondents and to several others identified by the desk research. This qualitative research has several limitations and should clearly be extended to a larger sample of educational units and a diversified set of stakeholders. Still, it provides useful insights into the experiences expressed by the leadership of these institutions and a good basis to generate additional inquiries on the topic. Key findings are outlined below.

High instability of the educational environment has been identified by a large part of educational representatives. The flows of information between central, county and local levels did not seem to work properly, especially concerning the timing of entering the online scenario or support concerning the diversity of available educational platforms. All educational representatives signalled significant delays in providing tablets and necessary equipment for students. The problem of access to tablets is also connected with the level of involvement from part of the local authority. Schools subordinated to local authorities with higher financial capacity succeeded in ensuring access to tablets. Still, even if the tablets connected to the internet and with all necessary educational platforms arrived, there are still students who experience problems with internet connectivity. Moreover, the fact that online education involves a serious shift of responsibilities on parents' side can only increase the inequalities in educational opportunities for children from a disadvantaged background. This is in particular true for younger children, with poor access to technology and internet connection.

Additionally, on the challenges' side, special attention should be paid to the group of children with special educational needs and children with disabilities. School principals mentioned reluctance of signing a bailment contract (for fear of the obligation to pay the tablet in case their child will break it up), lack of adequate open educational resources or lack of methodological supervision on how to use the online educational platforms for children with disabilities.

Part of the school principals identified several coping strategies in these challenging circumstances that can be used further on in relevant policy interventions. Some of them succeeded in mapping all the children in the community by household and age/educational level together with the availability of devices. Based on

SN Social Sciences A SPRINGER NATURE journal this information, the timetable for synchronous lessons has been adjusted accordingly. Others used various non-online activities like the support provided with worksheets distributed by the social worker (for children with special educational needs and/or children with disabilities). Others used the administrative personnel of the school (cleaning men and women), or professors from primary school to distribute the paper-based worksheets across the community.

On the advantages side, almost all educational representatives declared that teachers enrolled in their schools already benefited of adequate training provided by various forms/providers, including courses held through the national-level project. Trainings from the summer period as well as the "on-the-job" training during the state of emergency and state of alert acted as a good resource and an enabling factor for the next school year.

On the side, although the overall study approach is mainly qualitative, the study can also be used as an explorative one, as it is useful to generate new questions for further investigations. These relate to which is the current access to equipment and internet connectivity especially for children from disadvantaged groups, which are the alternatives that can be developed for children with disabilities and special educational needs, what are the exact learning losses registered as a consequence of distance learning, and how they are addressed or how can best be used what has been gained in online learning activities during this challenging period. Additionally, looking back at the entire school year of 2020–2021, for students in secondary school in Romania, the period of distance learning has been for about the entire school year and for the most part of the school year 2019–2020. Taking into consideration the high risk of early school leave for this group of students as well as the potential associated learning losses, significant challenges follow to be addressed in the immediate future. These include, but are not restricted to providing equitable and inclusive access to good learning conditions in face-to-face interactions for all those in need, including access to extra services for vulnerable students, in connection with support for students' and teachers' emotional well-being (OECD 2020). Adding on, future research steps can include echoing the voices of direct participants in the educational process, in line with similar previously conducted research (Polikhun et al. 2021; Simonova et al. 2021).

Acknowledgements Not applicable.

Author contributions Not applicable.

Funding This study has been supported by the Research Institute for Quality of Life as part of the annual research plan.

Data availability Anonymized transcripts of the interviews are available in Romanian from the author upon a reasonable request.

Declarations

Conflict of interest The author declare that he have no conflict of interest.

Ethical approval This study was conducted under UNEG rules and standards of conduct. Before starting an interview, the representatives were informed about the context and topics of the discussion, as well as about the purpose of the discussion and how their opinion will be processed, ensuring confidentiality. Informed verbal consent was obtained from all participants in the study. The research has been approved as part of the annual working plan by the Scientific Committee of the Research Institute for Quality of Life.

Consent for publication Not applicable.

References

- Betthäuser B, Bach-Mortensen A, Engzell P (2021) A systematic review and meta-analysis of the impact of the COVID-19 pandemic on learning. https://osf.io/g2wuy/download/?format=pdf Eurostat database. https://ec.europa.eu/eurostat/data/database
- Alves I, Pinto PC, Pinto TJ (2020) Developing inclusive education in Portugal: evidence and challenges. Prospects 49(3):281–296. https://doi.org/10.1007/s11125-020-09504-y
- ANDPDCA National Authority for the Rights of People with Disabilities, Children and Adoption (2020) Proposed measures regarding education of children with disabilities and children with special education needs. http://andpdca.gov.ro/w/wp-content/uploads/2020/06/Adresa-catre-MEC-educatiacopiilor-cu-CES.pdf.
- Andrew A, Cattan S, Costa DM, Farquharson C, Kraftman L, Krutikova S, Phimister A, Sevilla A (2020) Inequalities in children's experiences of home learning during the COVID-19 lockdown in England. Fisc Stud 41(3):653–683. https://doi.org/10.1111/1475-5890.12240
- Bellei C, Contreras M, Ponce T, Yañez I, Díaz R, Vielma C (2022) The fragility of the school-in-pandemic in Chile. In: Reimers F (ed) Primary and secondary education during covid-19 disruptions to educational opportunity during a pandemic. Springer, New York. https://doi.org/10.1007/ 978-3-030-81500-4
- Bokayev B, Torebekova Z, Abdykalikova M, Davletbayeva Z (2021) Exposing policy gaps: the experience of Kazakhstan in implementing distance learning during the COVID-19 pandemic. Transform Govern 15(2):275–290. https://doi.org/10.1108/tg-07-2020-0147
- Botnariuc P, Cucoş C, Glava C, Iancu D, Ilie M, Istrate O, Labăr A, Pânișoară I, Ștefănescu D, Velea S (2020) Școala Online. Elemente pentru Inovarea Educatiei. Raport de cercetare evaluativ [Online Schooling. Elements for Innovation in Education]. Bucuresti: Editura Universitatii din Bucuresti. https://unibuc.ro/wp-content/uploads/2020/05/Scoala_Online_Raport_aprilie_2020.pdf
- Cahapay M (2020) How Filipino parents home educate their children with autism during COVID-19 period. Int J Dev Disabil. https://doi.org/10.1080/20473869.2020.1780554
- Castro-Kemp S, Mahmud A (2021) School closures and returning to school: views of parents of children with disabilities in England during the covid-19 pandemic. Front Educ Sec Special Educ Needs. https://doi.org/10.3389/feduc.2021.666574
- Centrul National de Politici si Evaluare in Educatie (CNPEE), Unitatea de Cercetare in Educatie (2020) Invatarea la distanta. Ancheta cu privire la activitatile educationale desfasurate in Romania, in perioada suspendarii cursurilor scolare fata in fata [Distance learning. Survey regarding educational activities conducted in Romania, in the period of suspending face-to-face school courses]. http:// www.ise.ro/wp-content/uploads/2020/08/Invatarea-la-distanta_Raport-de-cercetare_august-2020. pdf.
- Cordini M, De Angelis G (2021) Families between care, education and work: the effects of the pandemic on educational inequalities in Italy and Milan. Eur J Educ 56:578–594. https://doi.org/10.1111/ejed. 12483
- Czerniewicz L, Agherdien N, Badenhorst J, Belluigi D, Chambers T, Chili M, de Villiers M, Felix A, Gachago D, Gokhale C, Ivala E, Kramm N, Madiba M, Mistri G, Mgqwash E, Pallitt N, Prinsloo P, Solomo K, Strydom S, Swanepoel M, Waghi F, Wissing G (2020) A wake-up call: equity, inequality and covid-19 emergency remote teaching and learning. Postdig Sci Educ 2(3):946–967. https://doi. org/10.1007/s42438-020-00187-4
- Daniel SJ (2020) Education and the COVID-19 pandemic. Prospects 49(1):91–96. https://doi.org/10. 1007/s11125-020-09464-3

SN Social Sciences

A SPRINGER NATURE journal

- De Coninck D, Matthijs K, Van Lancker W (2022) Distance learning and school-related stress among belgian adolescents during the COVID-19 pandemic. Front Educ 7:836123. https://doi.org/10.3389/ feduc.2022.836123
- European Commission (2019a) 2nd survey of schools: ICT in education—objective 1: benchmark progress in ICT in schools. Deloitte, Ipsos MORI. Luxembourg: European Commission
- European Commission (2019b) 2nd survey of SCHOOLS: ICT in education objective 2: Model for a 'highly equipped and connected classroom'. Deloitte, Ipsos MORI. Luxembourg: European Commission
- European Commission (2019c) 2nd Survey of Schools: ICT in Education. Romania Country Report, Deloitte, Ipsos MORI. Luxembourg: European Commission
- European Commission (2020) Education and training monitor 2020. Romania, Directorate-General for Education, Youth, Sport and Culture. Education and training monitor 2020 Country reports | Education and Training (europa.eu).
- Florian B, Toc S (2020) Policy note: Educatia in timpul pandemiei. Raspunsuri la criza nesfarsită a sistemului educational romanesc. [Policy Note: Education during the pandemic. Answers for the unfinished crisis of the Romanian Educational System] https://www.researchgate.net/publication/34096 7622_Educatia_in_timpul_pandemiei_Raspunsuri_la_criza_nesfarsita_a_sistemului_educational_ romanesc.
- Frohn J (2021) Troubled schools in troubled times: How COVID-19 affects educational inequalities and what measures can be taken. Eur Educ Res J 20(5):667–683. https://doi.org/10.1177/1474904121 1020974
- Gouëdard P, Pont B, Viennet R (2020) Education responses to COVID-19: implementing a way forward. OECD Education Working Papers No.224. OECD Publishing, Paris
- Granlund M (2013) Participation: challenges in conceptualization, measurement and intervention. Child 39(4):470–473. https://doi.org/10.1111/cch.12080
- Guilar J, Loring A (2008) Dialogue and community in online learning: lessons from Royal Roads University. J Dist Educ 22(3):19–40
- Haelermans C, Korthals R, Jacobs M, de Leeuw S, Vermeulen S, van Vugt L et al (2022) Sharp increase in inequality in education in times of the COVID-19-pandemic. PLoS ONE 17(2):e0261114. https:// doi.org/10.1371/journal.pone.0261114
- Häkansson J, Adolfsson CH (2021) Local education authority's quality management within a coupled school system: strategies, actions, and tensions. J Educ Change. https://doi.org/10.1007/ s10833-021-09414-6
- Hosszu A, Rughinis C (2020) Digital divides in education. An analysis of the Romanian public discourse on distance and online education during the COVID-19 pandemic. Sociologie Românească 18(2):11–39
- Hung Lau EY, Lee K (2020) Parents' views on young children's distance learning and screen time during COVID-19 class suspension in Hong Kong. Early Educ Dev. https://doi.org/10.1080/10409289. 2020.1843925
- Institutul de Stiinte ale Educatiei (2020) Scoala de acasa o provocare noua pentru elevi si o oportunitate pentru profesorii nostri. Rezultate preliminare de cercetare [Home Schooling a new challenge for students and an opportunity for our teachers. Preliminary research results]. http://www.ise.ro/wp-content/uploads/2020/07/Studiu_scoala_acasa_Rezultate_prelim_2apr2020_comunic.pdf
- Kamanetz, A. (2020) 'Panic-gogy': Teaching Online Classes During The Coronavirus Pandemic. NPR. Retrieved from https://www.npr.org/2020/03/19/817885991/panic-gogy-teaching-online-classesduring-the-coronavirus-pandemic
- Lauritzen SM (2020) Accessing basic education in Romania: possibilities and limitations for NGOs working for educational change for Roma children. J Educ Change 21(2):323–344. https://doi.org/ 10.1007/s10833-019-09358-y
- Lindblad S, Warvik GB, Berndtsson I, Jodal EB, Lindqvist A, Dahlberg GM, Papadopoulos D, Runesdotter C, Samuelsson K, Udd J, Johansson MW (2021) School lockdown? Comparative analyses of responses to the COVID-19 pandemic in European countries. Eur Educ Res J 20(5):564–583. https://doi.org/10.1177/14749041211041237
- Linne J (2022) Secondary schooling and digital technologies in times of pandemic. Espacios En Blanco-Serie Indagaciones 32(1):128–141. https://doi.org/10.37177/UNICEN/EB32-319
- Marković Krstić SV, Milošević Radulović LR (2021) Evaluating distance education in serbia during the covid-19 pandemic. Probl Educ 21st Century 79(3):467–484. https://doi.org/10.33225/pec/21.79. 467

- Ministry of National Education (2016) Early school leaving strategy in Romania. https://www.edu.ro/ sites/default/les/_%C8%99iere/Minister/2016/Transparenta/2016/rapoarte/Strategia%20privind% 20reducerea%20parasirii%20timpurii%20a%20scolii.pdf
- Ministry of National Education, World Bank (2017) Content and implementation of a National Program School after school. http://sgg.gov.ro/new/wp-content/uploads/2016/04/RIA-Report-MNE_RO.pdf
- MKOR (2020) Back to school post-covid. http://www.ise.ro/wp-content/uploads/2020/08/Raport-Backto-School-2020-2021.pdf
- Mohan G, Carroll E, McCoy S, Mac Domhnaill C, Mihut G (2021) Magnifying inequality? Home learning environments and social reproduction during school closures in Ireland. Irish Educ Stud. https:// doi.org/10.1080/03323315.2021.1915841
- Nichols M (2003) A theory for eLearning. J Educ Technol Soc 6(2):1-10
- OECD (2020) The impact of COVID-19 on student equity and inclusion: Supporting vulnerable students during school closures and school re-openings, OECD Policy Responses to Coronavirus (COVID-19). OECD Publishing, Paris. https://doi.org/10.1787/d593b5c8-en
- Parczewska T (2020) Difficult situations and ways of coping with them in the experiences of parents homeschooling their children during the COVID-19 pandemic in Poland. Education 3–13:1–12. https://doi.org/10.1080/03004279.2020.1812689
- Polikhun NI, Vilchynska OM, Slipukhina IA, Postova KH (2021) Effectiveness of distance learning during COVID-19 pandemic from educational process participants' viewpoint. Inf Technol Learn Tools 86(6):357–372. https://doi.org/10.33407/itlt.v86i6.4617
- Reimers F (ed) (2022) Primary and secondary education during covid-19. Disruptions to educational opportunity during a pandemic. Springer, New York
- Sari T, Nayir F (2020) Challenges in distance education during the (covid-19) pandemic period. Qual Res Educ 9(3):328–360. https://doi.org/10.17583/qre.2020.5872
- Schleicher A (2020) The impact of COVID-19 on Education. Insights from education at a glance 2020. https://www.oecd.org/education/the-impact-of-covid-19-on-education-insights-education-at-a-glance-2020.pdf
- Simonova I, Faltynkova L, Kostolanyova K (2021) Students' reflection on online distance learning: advantages, disadvantages, recommendations. In: Li R, Cheung SKS, Iwasaki C, Kwok LF, Kageto M (eds) Blended learning: re-thinking and re-defining the learning process. Springer, New York, pp 275–286
- Smith W (2021) Consequences of school closure on access to education: lessons from the 2013–2016 Ebola pandemic. Int Rev Educ 67:53–78. https://doi.org/10.1007/s11159-021-09900-2
- Stănculescu MS, Marin M (2018) Gaps and targets from the perspective of standard and quality of life of population, education and research. Institutul de Sociologie, Institutul de Economie Mondiala. Unpublished report
- Sun L, Tang Y, Zuo W (2020) Coronavirus pushes education online. Nat Mater 19(6):687–687. https:// doi.org/10.1038/s41563-020-0678-8
- Tartavulea CV, Albu CN, Albu N, Dieaconescu RI, Petre S (2020) Online teaching practices and the effectiveness of the educational process in the wake of the COVID-19 pandemic. Amfiteatru Economic 22(55):920–936
- Thorn, W. & Vincent-Lancrin, S. (2022) Education in the Time of COVID-19 in France, Ireland, the United Kingdom and the United States: the Nature and Impact of Remote Learning. In Reimers, F. (ed.) Primary and Secondary Education During Covid-19. Disruptions to Educational Opportunity During a Pandemic. Springer. https://doi.org/10.1007/978-3-030-81500-4
- UNESCO (2017) A guide for ensuring inclusion and equity in education. Paris: UNESCO. https://unesd oc.unesco.org/ark:/48223/pf0000248254
- UNICEF (2020a) Rapid assessment of the situation of children and their families, with a focus on the vulnerable ones, in the context of the COVID-19 outbreak in Romania (Round 4). https://www.unicef. org/romania/documents/rapid-assessment-situation-children-and-their-families-focus-vulnerableones-context-2
- UNICEF (2020b) What will a return to school during the COVID-19 pandemic look like?. UNICEF. https://www.unicef.org/coronavirus/what-will-return-school-during-covid-19-pandemic-look.
- United Nations (UN) (2020) Policy Brief: Education during COVID-19 and beyond. United Nations. https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_ covid-19_and_education_august_2020.pdf
- Velicu A (2020) Școala la distanță (primăvara 2020) și folosirea tehnologiilor digitale de către copii. Opiniile părinților și ale copiilor din România. [Distance learning (2020 spring) and usage of

SN Social Sciences

digital technology by children. Opinions of parents and children from Romania] Raport KiDiCoTi. București: Institutul de Sociologie. https://www.insoc.ro/institut/Raport_Scoala_KiDiCoTi%20_RO. pdf

- Van der Vlies R (2020) Digital strategies in education across OECD countries: exploring education policies on digital technologies. OECD Education Working Papers No. 226. https://www.oecd-ilibrary. org/docserver/33dd4c26-en.pdf?expires=1609696625&id=id&accname=guest&checksum=32705 D597A47B8B87C1B5A78D96E8ABA
- Vuorikari R, Velicu A, Chaudron S, Cachia R, Di Gioia R (2020) How families handled emergency remote schooling during the Covid-19 lockdown in spring 2020—summary of key findings from families with children in 11 European countries. Publications Office of the European Union, Luxembourg
- Zhao Y, Watterston J (2021) The changes we need: education post COVID-19. J Educ Change 22(1):3– 12. https://doi.org/10.1007/s10833-021-09417-3

Springer Nature or its licensor holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.