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Remote Education from the Perspective of Students, Parents, and Teachers of Elementary School in Grades I–III

Edukacja zdalna z perspektywy uczniów, rodziców i nauczycieli klas I–III szkoły podstawowej

Abstract: This paper presents a summary of the results from a study that was conducted in the context of distance learning and implemented by schools from March 25, 2020. The study was carried out twice on the same group of students, teachers, and parents of classes I–III. These studies used a qualitative method for collecting data. The first survey was conducted at the end of June 2020 and the second one – in February 2021. An original questionnaire was used to collect data. Sixty parents responded to the questions. In-depth interviews were conducted with 20 students and 6 teachers. The purpose of the survey was to find out opinions about distance learning and the challenges that were posed to teachers, parents, and students. These studies are trying to answer the following questions: 1. How was remote education implemented during the first and second waves of the pandemic?; 2. What difficulties were encountered by teachers, parents, and students in the implementation of distance education?; 3. What positive sides of remote education could be identified? The results demonstrated that despite many difficulties and fears, teachers managed to maintain continuity of teaching to the best of their ability by moving education to the digital world. Their digital competencies have increased, and their workbench has been enriched with new, previously unknown programs and educational portals. Remote education has shown how demanding the educational aspect of teachers' work is. Parents have learned the multidimensional nature of pedagogical work. They were able to learn the level of independence, and resourcefulness, verify the level of interest and concentration on the task and observe their own children's strategies of problem-solving when encountering difficulties. The students felt the importance of direct contact with their peers. They experienced fatigue resulting from constant computer use.

Keywords: remote education; early childhood education student; teacher; parent

Abstrakt: W artykule przedstawiono podsumowanie wyników badań przeprowadzonych w kontekście nauczania zdalnego, które szkoły realizowały od 25 marca 2020 r. Badanie było wykonane dwukrotnie na tej samej grupie uczniów, nauczycieli i rodziców klas I–III. Pierwsze badanie wykonano pod koniec czerwca 2020 r., a drugie w lutym 2021 r. Do zebrania materiału badawczego posłużyła autorska ankieta. Zastosowano również metodę

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wywiadu jakościowego. Ankietę wypełniło 60 rodziców. Wywiady pogłębione przeprowadzono z 20 uczniami oraz 6 nauczycielami (2 nauczycielki klas pierwszych, 2 nauczycielki klas drugich oraz 2 nauczycielki klas trzecich). Celem badania było poznanie opinii na temat nauczania zdalnego oraz wyzwań, które zostały postawione przed nauczycielami, rodzicami i uczniami. Doświadczenia tego okresu stanowiły podstawę do próby odpowiedzi na następujące pytania: W jaki sposób realizowana była edukacja zdalna w czasie trwania pierwszej i drugiej fali pandemii? Na jakie trudności w realizacji edukacji na odległość napotykali nauczyciele, rodzice i uczniowie? Jakie można wyodrębnić pozytywne strony edukacji zdalnej? Na podstawie uzyskanych wyników badania można stwierdzić, że pomimo wielu trudności i lęków nauczyciele poradzili sobie z zachowaniem ciągłości nauczania na miarę dostępnych możliwości, przenosząc edukację do świata cyfrowego. Wzrosły ich kompetencje cyfrowe, warsztat pracy został wzbogacony o nowe, wcześniej nieznane programy i portale edukacyjne. Edukacja zdalna uwidoczniła zarazem, jak bardzo obciążający jest wychowawczy aspekt pracy nauczyciela. Rodzice poznali nie tylko wielowymiarowość pracy pedagogicznej, lecz także poziom samodzielności i zaradności nauczycieli. Ponadto mieli możliwość zarówno zweryfikowania zainteresowań i poziomu koncentracji na zadaniu, jak i zaobserwowania strategii działania własnych dzieci w sytuacji napotkanych trudności. Uczniowie poczuli, jak ważny jest bezpośredni kontakt z rówieśnikami. Doświadczyli też zmęczenia wynikającego z ciągłego korzystania z komputera.

Słowa kluczowe: edukacja zdalna; uczeń edukacji wczesnoszkolnej; nauczyciel; rodzic

INTRODUCTION

The epidemic-driven need for schools to make the transition to compulsory remote education has been a huge challenge for teachers, students, and parents. So what is remote education? The constant and continuous development of education, both in its institutionalized and non-institutionalized forms, has led to the crystallization of new forms. One of them is remote learning, also called "distance learning", or – originally – "correspondence learning" (Korzan, 2021). Following Półturzycki, the definition of

> education conducted through the mediation and assistance of mail without direct contact between teacher and pupil. The education is carried out through written or printed and recorded materials sent to the student, whose progress is determined by written or printed exercises transmitted to teachers for inspection and improvement, and then returned to students with comments and evaluation. (1998, pp. 302–303)

The most popular definition proposed by Kubiak says that distance learning is

> a method of conducting the didactic process in conditions when teachers and students are not in the same place, using to transmit information – in addition to traditional ways of communication – also contemporary, modern telecommunication technologies, sending: voice, video, computer data, and printed materials. Modern technologies also enable direct real-time contact between teacher and student by means of audio-conferencing or video-conferencing, regardless of the distance that separates them. (2000, p. 11)

The following elements constitute the basis and peculiarity of distance education: the remoteness of the teacher from the student, the close influence of the educational organization, the use of technical means and printing that connect the

two essential actors, i.e. the teacher and the student, the preparation of verbal and non-verbal communication, the admission of occasional face-to-face meetings, the introduction of technology and automation into the educational message (Korzan, 2021). Currently, it is possible to observe the functioning of four generations of distance education in the educational space. The first generation is the correspondence model in the traditional sense. The characteristic of this model, apart from correspondence, are scripts and textbooks, printed materials, and lessons broadcast on the radio. The second generation is the multimedia model, whose essential data carriers have become lessons recorded on audio or video tapes, computer floppy disks with software, and interactive tapes and video disks. The third generation is precisely the synchronous tele-educational model. It requires a certain amount of time and discipline on the part of students and teachers, as it involves learning in different places but, at the same time, it is based on audio-conferencing and video-conferencing and on lessons broadcast by radio and television stations. The fourth generation brings a revolution in this respect. It is an asynchronous model that allows learning anytime, anywhere. It is based in particular on new technologies such as interactive multimedia (CD-ROMs and DVDs) and materials published on computer networks (especially the Internet). It is a model in which the computer (supported by a network) takes over the basic role of the medium (Galwas et al., 2002, p. 3).

In defining the specificity of remote education, Kubiak distinguished the following elements, reflecting its specificity in relation to the original systems of correspondence education:

- in the process of transferring knowledge, the teacher and the student are separated from each other and are separated by a certain, sometimes even considerable, distance in space and a certain time interval,
- various communication techniques are used in the process of transferring knowledge,
- two-way communication is secured between the teacher, instructor, tutor, educational institution, and the pupil (student),
- the control of the distance learning process takes place on the side of the learner rather than the teacher (2000, p. 13).

Nowadays, modern technology and its various technologies play a key role in distance education. The content of education can be conveyed by means of:

- voice – recorded on tape, disc, or in the form of a computer file, played directly by the learner using a home player or computer, or in a radio studio broadcast by a radio or satellite transmitter to interested recipients. However, it only allows passive reception, interaction is only possible via telephone or audio conference (teleconferencing in the original telephone sense),

- image – a voice recorded on tape, video, or hard disk of a computer, combined with static (photographs, charts, diagrams, ...) or moving images, in the form of animation or film, can be played on home systems or broadcast via television or satellite. It is also possible to transfer such data using computer networks or to download it from the Web to a local computer disk for later reproduction,
- computer data – information in a digitized form. The current development level of information technology makes it possible to send almost any information in this form. The only barrier may be the limitations and availability of appropriate peripheral devices used to input and reproduce computer data,
- printed materials – playing a fundamental role in education, not only at a distance. These include textbooks, study guides, and methodological manuals, exercise books, course materials, and analyses of specific problems (p. 15).

MATERIAL AND METHODS

In the following part of the article, I will present a summary of the results of the research that was carried out in the context of distance learning, implemented by schools on 25 March 2020. The study was carried out twice on the same group of students, teachers, and parents of classes I–III in one of the schools in Białystok. The administration asked not to disclose the name of the school. The first survey was conducted at the end of June 2020, and the second one – in February 2021. An original questionnaire was used to collect the research material. The qualitative interview was also used, as it best reveals the experiences and definitions of a person, group, or organization as they are interpreted by that person, group, or organization (Denzin, Lincoln, 2009, p. 73). The questionnaire was completed by 60 parents. In-depth interviews were conducted with 20 students and 6 teachers (two first-grade teachers, two second-grade teachers, and two third-grade teachers). The aim of the survey was to find out the opinions about distance learning and the challenges that were posed to teachers, parents, and students. The experiences of these groups during the period of June 2020 and February 2021 formed the basis for trying to answer the following questions: 1. How was remote education implemented during the first and second waves of the pandemic?; 2. What difficulties were encountered by teachers, parents, and students in the implementation of distance education?; 3. What positive sides of remote education can be singled out?

RESULTS

Implementation of distance education in the researched school

From March to the first half of April 2020, remote education in classes I–III was carried out according to the definition provided by Półturzycki (presented in the introduction) through the mediation and assistance of the Internet connection without direct contact education between teachers and students. Teachers were sending each day by e-mail the following:

- the topic of the day and links to educational videos on publicly available platforms for home viewing, or they prepared presentations themselves and made them available to the children,
- the scope of the textbook and exercises to be completed,
- assignments to be completed using freely available educational games such as PisuPisu, Matzoo, some logged the class on the Eduelo portal.

From the second half of April to June 2020, online lessons were introduced in addition to the previously developed forms. The timetable and meetings between teachers and students were modified – they were held 3 times a week in the afternoons, usually between 5 and 6 p.m. (depending on the parents' decision and access to computer equipment), but only with the class tutor. English teachers also met once a week in the afternoon.

During the next pandemic wave, between November 2020 and February 2021, remote education took the form of full-time online lessons according to the current timetable with all teaching staff.

Distance education from the teachers' perspective during the first wave

Above all, teachers stressed that they experienced great anxiety and confusion. The most anxiety-provoking factors in the opinion of the surveyed teachers were: lack of skills in using computer equipment, lack of technical facilities, reorganization of home life, change of daily schedule, lack of uniformity of educational platforms used in the institution, stress resulting from working in front of the camera, constant monitoring of classes by parents, parents' behaviour, notably increase of time needed to prepare for classes, constant fatigue associated with working in front of a computer, headaches, eye pain, isolation, lack of direct contact with the student. As an illustration of these problems, let us take some excerpts from the teachers' statements.

"It is a nightmare. Every other day we meet remotely to master the skill of using some communicator. First, there is training in Jitsi. What if I generate the meeting

link wrongly and someone doesn't connect with me? Then it turns out that this is not a good solution. We learn how to use Zoom. One parent said he won't let his daughter connect through Zoom because it's very easy to hack the data. So another training. This time Teams".

"I am very tired. I'm trying my best, but I don't know if the material being sent is getting the most out of it. Preparing a presentation with a recording of my own voice takes about 5–6 hours a day".

"In our house, 5 people work remotely. My husband and I are teachers, and each of our sons has a remote education. The eldest is preparing for his *matura* exam. Often the Internet connection breaks when four people are working at the same time. Actually, I am glad that I meet the students in the afternoon, the laptop is only at my disposal. By late evening I have to prepare materials to send to the students, in the morning I hand over the laptop to my eldest son".

"I am currently teaching first grade. The hardest part is implementing learning how to write letters and how to correctly combine them into words. I look for various instructional videos, but then I don't have the opportunity to check the notebooks. It doesn't matter that parents send me pictures of their children's work".

"Teaching in front of the camera is very stressful, I see not only my student but also the parents, and I have the impression that my every word is being analyzed".

After analyzing data obtained in in-depth interviews with teachers, difficulties in the implementation of distance education can be considered at three levels:

- technological preparation is understood as the lack of computer equipment (computers, laptops, tablets), lack of sufficiently fast and stable Internet connection,
- methodological preparation in terms of transferring traditional classes to the digital world is understood as the ability to select appropriate tools, methods and content available in digital form,
- lack of sufficient digital competencies among teachers.

Implementation of distance education from the perspective of teachers during the next wave of the pandemic

In the next wave, teachers were more relaxed about the distance learning situation. There was a sense of stability resulting from previously acquired skills and a standardized form of online teaching for the whole school, i.e. using the Teams platform and working according to a timetable. Technical and equipment problems among staff were minimized. Teachers who did not have the appropriate equipment and Internet connection at home were able to teach in classrooms due

to the possibility of moving around and leaving their homes. However, other difficulties emerged. To quote a few statements:

"I am already used to working online. I have learnt how to use Teams, I have learnt about many interesting educational websites, which I use. The big difficulty was to set up the team on Teams by myself and the problems with the Internet at the students' homes that occurred during the classes".

"The most difficult thing was to train the students to use the Teams platform and to control the attendance. Some were suddenly disappearing from the lessons explaining it to technical problems they had which they didn't have before. I had no way of verifying these statements".

"What I miss most is the full understanding of the situation by some parents and the multi-faceted cooperation on their part. I wonder when they will stop solving tasks for their children and being responsible for them, very often they sit next to the child and prompt him, do they think I don't hear it?"

"What I need most is acceptance of my actions, contact with others, sharing experiences, but not online. I would like to work out the best way of correcting mistakes and checking the acquired skills and knowledge by my students".

Analysing the teachers' statements it may be stated that in the next phase other kinds of difficulties appeared, in which I distinguished two areas:

- technical – problems with the equipment at pupils' homes, teaching pupils how to use the communicator,
- interpersonal – the need for contact with others, the need to accept one's own actions.

Implementation of distance education from the parents' perspective during the first wave of the pandemic

The surveyed parents responded to questions about the principles of implementing online learning, the problems they faced, how their children were coping with the change, the challenges of providing their child access to equipment, and what kind of parental support this form of education requires. The results are as follows: 1/3 of parents struggle with the availability of equipment – they are not able to provide an online learning device to each child. The equipment is shared in these families. In contrast, nearly 2/3 of parents have a sufficient number of devices.

The reorganization of everyday life has meant that schools have moved to the homes, and often children still need adult support in learning. Parental involvement in the remote education of pupils in elementary school grades I–III is very high (Table 1).

Table 1. How much time do you spend supporting your child in remote learning?

Five hours a day and more	13	21%
Four hours a day	11	18%
Three hours a day	12	20%
Two hours a day	9	15%
One hour a day	8	14%
My child does not need support	7	12%
Total	60	100%

Source: Author's own study.

21% of parents taking part in the survey admit to spending five or more hours a day "on the study" with their child. For 18% of respondents, it is four hours a day. For 20% of parents, it is three hours, and for 15% it is two hours. Only 12% of children do not need parental support. Parents were also asked about the type of support provided (Table 2).

Table 2. What type of support does your child need?

My child is fully independent	7	12%
I help with the computer equipment	16	27%
I print out the submitted worksheets	25	42%
We check the completed tasks together	31	51%
I tell my child what to do	32	53%
I send the completed worksheets back to the teacher	33	54%
The results do not add up because there were multiple answers to this question		

Source: Author's own study.

Most of the parents are involved in the whole teaching process. This ranges from printing out worksheets (42%), informing the children what has been assigned (53%), checking the correctness of exercises (51%), and sending back completed materials (54%). Often children also need basic help to use the equipment (27%). According to parents, students have too many responsibilities and are overburdened (Table 3).

Only 26% of the respondents indicate that there is just enough learning, while 35% of parents say there is definitely too much learning and 33% – rather too much learning. To verify and confirm the teachers' statements, parents were asked to indicate what forms remote education takes (Table 4).

Table 3. What is your child's remote learning burden?

There is definitely not enough learning	1	2%
There is rather too little learning	2	4%
There is just enough learning	16	26%
There is rather too much learning	20	33%
There is definitely too much learning	21	35%
Total	60	100%

Source: Author's own study.

Table 4. How do teachers implement distance education?

Teachers send a range of material from the textbook and exercises to be completed independently	51	85%
Children receive materials/tasks to do by themselves	43	72%
Children receive educational films on widely available platforms to watch at home	38	63%
Teachers prepare the films/presentations themselves and make them available to children	10	16%
The results do not add up because more than one answer was possible in this question		

Source: Author's own study.

85% of parents confirmed that the teachers send a range of material from the textbook and exercises to be completed independently. 72% of parents receive materials/tasks for their children to complete on their own. 63% of parents indicated that children receive educational videos on public platforms to watch at home, and 16% of parents confirm that teachers prepare the videos themselves and make them available to children.

The sudden change in the way of learning has also left students with problems and challenges. According to the parents surveyed, children miss the most direct contact – with their peers (59%) and with teachers (54%). Pupils also find it difficult to work independently – to plan their learning and to know different learning methods (34%). For 18% the lack of equipment is a limitation.

Distance education from the parents' perspective during the next wave of the pandemic

During the second round of remote education, all lessons were online, as planned. Only 7% of parents still reported a problem with access to computer

equipment. Parental involvement in their children's education has changed. Parents noticed that their children were more independent and could themselves spend less time being involved in their child's education (Table 5).

Table 5. How much time do you spend supporting your child in remote learning?

Five hours a day and more	1	1%
Four hours per day	2	3%
Three hours a day	2	3%
Two hours per day	39	65%
One hour a day	8	14%
My child does not need any support	8	14%
Total	60	100%

Source: Author's own study.

The type of support provided has changed. There was still help with the computer equipment and joint checking of completed tasks. Parents no longer had to print out the worksheets or send them back, as teachers used the OneNote application.

In the next wave of the pandemic, the surveyed parents confirm that children miss the most direct contact – with peers 69% and with teachers 44%. Pupils also find it difficult to work independently – to plan their learning and to know different learning methods (29%). Parents did not declare limitations related to the lack of equipment. And what do the students themselves say about this?

Distance education from the students' perspective during the first wave of the pandemic

The pandemic reorganized everyday life. When analyzing the interviews conducted with pupils, the emotions accompanying the sudden change in children's lives come to the fore. Their first reaction was a kind of joy at being at home, but later they became confused and longed for the old rhythm of the day. The sense of security was shaken. Pupils in classes I–III mentioned: the stress of being closed at home, problems with concentration, and lack of contact with friends.

"At first I was quite happy because there is no school and no lessons, but then it was boring because I sat all the time in front of the computer. I missed my friends because I couldn't play with them".

"I didn't like sitting at home. I had no contact with my friends at all. We couldn't hang out. I had trouble concentrating to do tasks. I was distracted by a lot of things when I was at home. I don't remember remote teaching very well".

"I missed my classmates. I didn't like the fact that we couldn't meet, talk and play together".

"I was upset. My parents are teachers and I have two brothers. It was hard. I prefer it when there are lessons at school. I definitely spent more time in front of the computer with remote teaching than I normally do, but I also found some time to play at home. I missed my friends and classmates, going out and hanging out".

"It was a bit weird at first and then I got used to it, but what wasn't cool was that I couldn't hang out with my friends. Everyone was sitting at home with their laptops and there was a bit of confusion".

"There was a bit of chaos at home because my mother is a teacher and she had a graduating class. But somehow we managed. I reacted positively on the one hand because I didn't have to get up in the morning, but on the other hand I couldn't hang out with my peers".

"At that time I had never been to remote so I didn't know if it would be fun or not, but after that it was not very interesting, well because I couldn't meet my friends".

Students, like teachers, spent a lot of time in front of the computer – from 5 to 8 hours a day, they declared fatigue and headaches. The answer to the question "How much time did you spend in front of the computer when there was remote education?" were as follows:

- somewhere around 7 hours, something like that,
- more or less like 5 hours, with breaks,
- well, about 6 hours, including lessons, then another hour in the evening to browse but it was 8–7 hours and I had a headache afterwards,
- about 5 hours just for lessons,
- I definitely spent more time in front of the computer when teaching remotely than I normally do, but I also found time to play at home,
- 5–6 hours, if there was some long homework then longer but usually not,
- to read the lessons from the teacher it was 5 hours and after lessons, it was an hour,
- about 8 hours a day.

Students, like teachers during the first phase of the pandemic, had technical difficulties consisting in both free access to the equipment, sharing the computer with siblings and the stability of the Internet connection.

"It was just my laptop. I also had problems with connection".

"It was quite interesting because we had two computers and my mother is also a teacher and my brother also goes to school so we had to share somehow, one person had to work on the phone".

"It was a problem because I had to share the computer with my older brother who also had lessons and I didn't always have access to it. Sometimes I also used the phone".

"It was a shared laptop, but at the time I was the one using it. »And did you have problems with the Internet back then?« – "Yes, often. Practically everyone had".

"At first my dad gave me his phone and then I had a laptop which was only at my disposal".

"I had my computer at my disposal, but sometimes there were problems with the connection, but not often".

"I have my laptop, it works not so well but I did not have to share it, my mother also has a laptop and my brother has a computer".

"Sometimes I had a laptop and sometimes a phone because I had to share with my brother and mum".

"Often I couldn't hear what the lady was saying, the equipment was stuttering and I couldn't meet others".

All the surveyed children declared help from those closest to them – parents, older siblings in:

- solving problems related to the operation of equipment, computer programs used in distance education, and the Internet connection,
- completing and implementing tasks sent by the teacher,
- sending back completed work for checking.

Distance education from the students' perspective during the second wave of the pandemic

The subsequent transition to remote education was treated by pupils as a kind of normality. Far fewer of them declare a lack of accessibility to the equipment, relatives no longer need to be as involved in helping because skills in operating the equipment have increased.

"In the beginning, we had to learn how to use the program we were working on – Teams. Later on, there were normal lessons but through the computer".

"During the lessons, we had to have the cameras on but there were often technical problems beyond our control".

"The second time the lessons were more normal. We had lessons according to the timetable, but via computer".

"It was more »normal« because everyone had already mastered what the lessons were about, how we were supposed to connect".

"We were connecting on Teams. Well, it wasn't much fun, the lessons were normal as planned, but we couldn't run during breaks. The breaks looked like we were just disconnecting".

All the time the pupils underlined the lack of opportunities to meet their friends and the isolation. The longing for peers remained as it did during the first wave of the pandemic.

"It was terribly boring at home, and I just sat and did nothing, and that was it".

"You can't go out in the yard with your friends and, I don't know, play with your closest friend, for example".

"I missed seeing each other, not like online, but like in person with friends and with teachers".

"I missed school. I wanted to go to classes, especially all sports and art classes".

"I missed my friends and classmates, going out and hanging out".

"I missed my friends and classmates, normal lessons".

The time spent in front of the computer did not change the students' declarations. In the statements, there was a range of time between 5 and 8 hours a day.

"As before, I spent 5–6 hours in front of the computer".

"I spent the same amount of time in front of the computer as I did in the previous remote education".

Positive sides of remote education

The teachers of grades I–III, despite the previously described difficulties, have tried to find positive sides of remote education. These include: in the area of educational work, minimization of educational problems to be solved; in the area of didactic work, enrichment of their workbench with new working methods and an increase in their computer skills.

"I got to know a lot of new educational portals, programs that I intend to use every day at work with the interactive whiteboard".

"During remote education I paradoxically relaxed emotionally, problems with difficult behaviour of students during lessons and breaks disappeared, everyone waited patiently for their turn to speak".

Parents believe that remote education is very useful, it should be used when a student has difficulty accessing school due to illness or other important reason. Students in grades I–III overwhelmingly do not see the positive sides of remote education. They do not want to study at home again. Only in the statements of three students did positive sides of this type of learning appear.

"Yes, I would like to go back to remote education because I could get enough sleep".

"I liked the fact that I could get enough sleep".

"I liked it, I don't know, maybe the fact that I didn't have to carry a backpack".

CONCLUSIONS

Despite many difficulties and fears, teachers have managed to maintain continuity of teaching to the best of their ability by moving education into the digital world. Their digital competencies have increased, and their workbench has been enriched with new, previously unknown programs and educational portals. Remote education has shown how demanding the educational aspect of the teacher's work is.

Parents taking over part of the teacher's duties at home have become acquainted with the multidimensional nature of pedagogical work. They were able to learn about the level of independence, and resourcefulness, verify the level of interest and concentration on the task, and observe their own children's strategies in situation of difficulties.

The pupils felt the importance of direct contact with their peers. They experienced the fatigue resulting from constant computer use. It turned out that the virtual world can be boring.

In order to build a broader picture of schools, kindergartens, and home life during the pandemic, it is worth referring to studies by, *inter alia*, Buchner et al. (2020), Jaskulska and Jankowiak (2020), or Jaskulska et al. (2020). Each study provides answers to different questions, illuminates a different problem. Remote learning from the perspective of female and male teachers is presented, *inter alia*, by the Centre for Research (Centrum Cyfrowe, 2020) in its report. The Librus (2020) portal publishes a report on distance learning at home.

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