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Distance Education in the Context of the Digital Divide: Perspectives of Students, Teachers, and Parents

Nuriye Batmaz Derer, Özgür Kürşad Derer

Abstract: The main aim of this study is to examine the effects of distance education within the context of the digital divide, based on the opinions of teachers, students, and parents. This research is a descriptive study conducted through semi-structured individual interviews. Participants consisted of three groups: (1) 15 students with limited or no access to distance education, (2) their parents, and (3) 20 teachers. Data were analysed using content analysis techniques. Findings indicate that while distance education ensures educational continuity, it falls short in effectiveness due to digital access barriers. Most students perceived EBA TV as insufficient for academic development and struggled with limited internet access and inadequate technological resources. This study contributes to the literature by offering a multi-stakeholder analysis of the digital divide and provides critical insights for developing more equitable and inclusive distance education policies aimed at mitigating socioeconomic disparities.

Keywords: Distance education, disadvantaged groups, educational inequality, digital divide, cultural capital, student perspectives, parent perspectives, teacher perspectives, qualitative research, socio-economic status.

Highlights

What is already known about this topic:

- Socio-economic disadvantages create significant barriers to accessing remote learning technologies.
- Bourdieu's theory suggests education can legitimize inequality through uneven distribution of capital.
- The digital divide intensified pre-existing educational inequalities during global school closures.

What this paper contributes:

- It offers a multi-perspective analysis by triangulating views of disadvantaged students, parents, and teachers.
- The study explores the lived experiences of disadvantaged groups in Turkey through Bourdieu's sociological lens.
- Findings reveal how distance learning failed to meet the cognitive and emotional needs of vulnerable learners.

Implications for theory, practice and/or policy:

- Policymakers must expand device distribution and digital literacy programs to bridge the access gap.
- Offline-accessible educational solutions, such as printed modules, are essential for unconnected students.
- Support systems should address not just academic loss but also the social isolation of vulnerable adolescents.
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Introduction

The sudden global pivot to distance education in response to the pandemic situations necessitated a rapid, technology-driven transformation in instruction, often termed as "Emergency Remote Teaching" rather than planned online learning (Hodges et al., 2020). While this shift was critical for ensuring educational continuity, empirical reports indicate that it simultaneously exposed and amplified deep-seated socio-economic inequalities globally (OECD, 2020; UNESCO, 2020). Distance learning, heavily reliant on internet access, technological tools, and a supportive home environment, structurally favoured students with high cultural and economic capital (Di Pietro et al., 2020). For socio-economically disadvantaged groups, this reliance immediately translated the digital divide into a profound educational gap (Van Deursen, 2020). This study addresses this critical problem by investigating the true impact and effectiveness of distance education through the triangulated perspectives of students, their parents, and their teachers, specifically focusing on how educational inequality was reproduced in this new learning environment.

Literature

In recent years, global disruptions have significantly influenced education systems, leading to the closure of schools across nearly all countries, from preschool to higher education, and necessitating a rapid shift to distance education. This transition impacted approximately 1.6 billion students and over 100 million teachers and school personnel worldwide (UNESCO, 2020). Primary education, which involves the highest student density, experienced substantial learning losses due to the lack of physical interaction. At the same time, middle and high school students, who are in a critical phase of adolescence, faced significant limitations in accessing school environments crucial for their socio-emotional development (Bozkurt et al., 2020).

Beyond educational consequences, the global economic downturn deepened household financial struggles, increasing unemployment and reducing income levels. As a result, international reports estimated that millions of children faced the risk of dropping out of school or losing access to education due to economic hardship alone (UNESCO, 2020). Furthermore, the World Bank highlighted that a significant number of children were at risk of falling into learning poverty, with the potential for long-term declines in human capital indices (World Bank, 2021). These developments suggest that countries may suffer significant setbacks in both educational and social development (TEDMEM, 2023).

In response to these global disruptions, various approaches were implemented within education systems. Policymakers across countries made diverse decisions regarding the closure or continuation of educational institutions. In most cases, face-to-face education was suspended at all levels, and learning shifted toward distance education. Consequently, physical school buildings were closed worldwide, and both teachers and students had to rapidly adapt to remote learning formats (Bozkurt & Sharma, 2020). The extended closures of schools and the resulting financial strain on public and household budgets profoundly impacted children’s well-being and educational access (Reimers & Schleicher, 2020).

This shift brought significant risks for various dimensions of child development, including physical, psychosocial, cognitive, and mental health domains, while also affecting family dynamics. Particularly, children from low-income families faced substantial challenges with home-based learning, often due to a lack of essential learning resources. Studies confirm that students who already experienced socio-economic disadvantages in traditional schooling environments became even more vulnerable in remote settings, especially when they lacked access to digital tools such as computers, internet, or smartphones (Di Pietro et al., 2020).

Another critical challenge emerged in the educational content itself. Teachers, often unprepared for this sudden shift, were tasked with producing and adapting materials for remote teaching environments. Yet,

regardless of the quality of these digital contents, their impact remained limited for students who lacked equitable access (TEDMEM, 2023). The simultaneous rollout of distance education programs not only exposed but intensified pre-existing educational inequalities, particularly among children from rural or disadvantaged backgrounds. Empirical evidence suggests that schools in such communities experienced greater obstacles in maintaining instructional continuity compared to better-resourced institutions in urban settings (Özüdoğru, 2021).

To better understand these inequalities, Bourdieu's (1977) concepts of capital and habitus provide a valuable lens, especially in the context of distance education. Education, rather than equalizing opportunities, often functions to legitimize inequality by transforming social differences into academic ones and presenting these differences as merit based. Through this mechanism of social reproduction, children from privileged backgrounds benefit from inherited cultural capital, whereas those from disadvantaged families struggle with limited resources, domestic responsibilities, and minimal parental academic support—factors that negatively influence educational performance.

Although this theoretical framework is frequently referenced in literature, research focusing specifically on how distance education affects disadvantaged groups through this lens remains relatively scarce. While some existing studies explore inequalities in remote learning environments, they often focus on general access issues or teacher readiness, rather than deeply analyzing structural inequalities based on socio-economic background (Özüdoğru, 2021). Reports by organizations such as TEDMEM (2023) highlight issues like the digital divide, lack of educational support at home, and regional disparities, yet there remains a gap in studies that triangulate the voices of students, parents, and teachers within a theoretical framework like Bourdieu's.

The significance of focusing on disadvantaged students is clear: those excluded from education due to economic hardship, limited internet access, or lack of academic support at home face long-term risks. These risks include learning loss, social isolation, reduced cognitive stimulation, and ultimately, the reproduction of poverty and social immobility. International bodies estimate that prolonged disruption in learning may push millions of children into deeper educational disadvantage (World Bank, 2021). If these structural barriers remain unaddressed, students may experience permanent setbacks in higher education and employment, thereby perpetuating intergenerational inequality. By capturing the voices of disadvantaged students, their parents, and teachers, this study offers a multi-stakeholder perspective on how educational inequality is experienced and reproduced within the distance learning process.

Although Türkiye responded relatively quickly in certain areas, its education system was largely unprepared for the sudden shift to distance learning, making it one of the most affected countries. Among OECD nations, Türkiye had one of the longest periods of school closures (OECD, 2020). During this period, all levels of formal education shifted to online instruction, and stakeholders—including teachers, students, and families—were expected to rapidly adapt.

In response, students in primary, secondary, and high schools continued their education through the Ministry of National Education's Eğitim Bilişim Ağı (EBA) platform and TRT-EBA television broadcasts. According to official reports, millions of students and teachers utilized the EBA system; however, data indicates a disparity in effective access (MoNE, 2020). Estimates suggest that a significant percentage of students could not access the EBA platform effectively during this time due to technical constraints. While technological limitations undoubtedly played a role, other factors such as reliance on EBA TV, the use of alternative platforms, household responsibilities, psychological stress, and lack of motivation also contributed to the widening gap.

Research shows that students from disadvantaged and rural areas were most affected by the transition to distance education. For instance, studies in the Turkish context highlighted that many students in rural regions faced significant barriers to effective participation in online learning due to limited access to devices and internet connectivity (Kuş et al., 2021). Furthermore, official reports emphasize that

despite the availability of platforms like EBA, many students could not meaningfully engage with online content due to environmental and socioeconomic constraints (TEDMEM, 2023). This situation significantly widened the digital divide and deepened pre-existing inequalities.

The Ministry of National Education's own reports indicate that students preparing for high-stakes exams experienced intensified disadvantages due to unequal access to learning materials and support services (MoNE, 2020). Although several studies examine distance education experiences from individual perspectives, few explore these issues through the combined viewpoints of students, teachers, and parents. This study fills that gap by offering a multi-dimensional analysis focused specifically on disadvantaged groups in the Turkish education system.

The main purpose of this research is to examine the effects of distance education on disadvantaged groups from the perspectives of teachers, students, and parents. In line with this purpose, the study seeks to answer the following research questions:

1. How do disadvantaged students, teachers of disadvantaged students, and parents perceive the effectiveness of distance education in supporting academic learning?
2. What challenges have disadvantaged students encountered during distance education in terms of access, motivation, and learning outcomes?
3. In what ways have parents of disadvantaged students attempted to support their children's participation in distance education, and how do students evaluate these efforts?
4. What strategies have teachers of disadvantaged students employed to address the cognitive and emotional needs of disadvantaged students during distance education?
5. How has distance education influenced the educational inequalities experienced by disadvantaged groups, according to teachers of disadvantaged students, students, and parents?

Methodology

In this section, the research design, participants, data collection tools, and data analysis procedures used to investigate the effects of distance education on disadvantaged groups are explained in detail.

Research Model/Design

This study was designed as qualitative descriptive research, aiming to explore and interpret participants' lived experiences and perceptions within their natural contexts. A qualitative design was considered appropriate because the focus of the research was not to measure variables quantitatively but to gain an in-depth understanding of how disadvantaged students, their parents, and teachers experienced distance education and educational inequality.

Individual semi-structured interviews, one of the qualitative data collection approaches, were therefore employed in this descriptive study. Semi-structured interviews are frequently preferred because they provide both a certain level of standardization and flexibility, eliminate the limitations of written scales and questionnaires, and enable the collection of rich, in-depth information on specific topics (Yıldırım & Şimşek, 2021). This method was specifically chosen because the research aimed to explore the personal experiences, perceptions, and contextual realities of disadvantaged students, their parents, and teachers regarding distance education. Since disadvantaged groups often face complex and multifaceted barriers that cannot be fully captured through structured or quantitative instruments, semi-structured interviews allowed participants to express themselves more freely and reflectively. This flexibility made it possible to uncover not only surface-level challenges but also deeper emotional and social impacts of distance education, which are crucial to understanding educational inequality in context.

Data Collecting Tools

Data were collected during the 2021–2022 academic year, when distance education practices were still actively implemented following the COVID-19 pandemic. Stating the data collection period is important, as participants' experiences reflect the conditions of ongoing remote and hybrid learning rather than the early emergency phase or the fully post-pandemic period.

The study employed semi-structured interviews as the primary qualitative data collection method. Semi-structured interviews provide both flexibility and consistency, enabling participants to elaborate on their experiences while allowing comparisons across groups (Adıgüzel, 2016; Yıldırım & Şimşek, 2021). This approach was considered particularly appropriate for exploring the complex and context-dependent experiences of disadvantaged students, their parents, and the teachers of these students.

Development of the Interview Forms

The development of the interview forms was theoretically grounded in the Hammond Curriculum Evaluation Model (Hammond, 1967). Specifically, the instructional dimension of the model, including organization, content, method, facilities, and cost, guided the identification of the main themes. These dimensions were directly translated into interview themes and sub-themes, and open-ended questions were constructed to ensure that each dimension of the model was systematically addressed during data collection. In this way, the analytical framework explicitly informed the structure of the interview tools. Separate but parallel interview forms were prepared for each stakeholder group to reflect their distinct roles within the distance education process. While the wording of the questions differed across groups, the same thematic structure was maintained to ensure comparability of findings.

Student Interview Form

Within the organization dimension, questions addressed the impact of the home environment on students' participation in online education, perceived advantages and disadvantages of distance learning, difficulties in accessing live online lessons, and preparation processes for online classes. Within the content and method dimensions, students were asked about EBA TV and online lesson content, presentation styles, and student–teacher interactions. Additional questions explored differences between face-to-face and online education. Within the facilities dimension, questions focused on barriers to access, availability of digital tools, internet connectivity, and opinions regarding EBA support points created in schools.

Teacher Interview Form

Within the organization dimension, teachers were asked about their perceptions of the effectiveness of online education, the advantages and disadvantages of distance learning, planning of live lessons, lesson schedules, and weekly teaching hours. In the content and method dimensions, questions explored differences between face-to-face and online instruction, student–teacher interaction, and supplementary practices aimed at supporting students who could not attend online lessons. Within the facilities and cost dimensions, teachers were asked about challenges related to technological infrastructure, online teaching tools, and internet connectivity.

Parent Interview Form

Parents were asked about their perceptions of online education, its advantages and disadvantages, and the effects of the home environment on students' access to online lessons within the organization dimension. In the content and method dimensions, questions examined whether parents provided cognitive or emotional support and whether they assisted their children with learning activities. Within the facilities and cost dimensions, parents were asked about technological deficiencies, access to

devices such as computers or tablets, internet connectivity, and efforts made to enable their children to participate in online education and follow EBA TV.

Validity, Expert Review, and Pilot Study

During the development of the questions, relevant literature on online education, disadvantaged groups, and the pandemic was reviewed. Expert opinions were obtained from an Educational Sciences specialist for content validity and a Turkish language expert for language clarity. Separate expert evaluation forms were prepared for the student, teacher, and parent interview protocols. Based on expert feedback, several items were revised or added. A pilot study was conducted with two teachers, one student, and one parent to assess clarity and interview duration. Pilot data were not included in the analysis. Following these revisions, the interview forms were finalized.

Ethical Considerations

Participants were selected voluntarily. Written informed consent was obtained from all participants. The consent form included information about the purpose of the study, recording procedures, and how the collected data would be used and shared.

Study Group

To explore the views of disadvantaged students, their parents, and the teachers of these students regarding distance education practices, the study was conducted with a total of 50 participants. In this study, “disadvantaged” refers to students experiencing socioeconomic and access-based constraints that limit their participation in distance education. These constraints included limited or no access to personal digital devices, unstable or insufficient internet connectivity, and restricted academic support at home. Students meeting one or more of these conditions were considered part of the disadvantaged group. The participants consisted of 15 students attending a secondary school and a high school in the Bozüyük district of Bilecik province, their parents, and 20 teachers who taught these students. Teachers were included as key stakeholders to provide contextual insights into students’ learning experiences. All participants were selected on a voluntary basis, and ethical consent was obtained prior to data collection.

Participants were identified using purposive sampling, a non-probability sampling strategy commonly applied in qualitative research to select individuals who possess relevant experience or insights related to the research problem (Gürbüz & Şahin, 2018; Merriam, 2015; Patton, 2018; Sönmez & Alacapınar, 2014; Yıldırım & Şimşek, 2021). The strength of this method lies in its ability to provide in-depth and context-specific data by focusing on information-rich cases—such as students who had limited or no access to online education during the period of distance learning.

The decision to include both secondary and high school students was deliberate and rooted in their shared developmental and educational characteristics. Despite slight differences in age and maturity, both groups experienced the same structural and institutional conditions, including the use of national platforms such as EBA and TRT EBA. These students fall within a critical developmental stage where disruptions in structured educational environments can have long-term cognitive and emotional effects. Thus, combining both groups allowed for a more holistic exploration of the distance education experience among disadvantaged adolescents. Importantly, the study does not aim to compare the groups directly but rather to identify common themes and challenges across the broader category of educational disadvantages. The demographic characteristics of the teachers participating in the study are presented in Table 1.

Table 1. Descriptive statistics of teachers participating in the research

Variables		f
Gender	Female	13
	Male	7
Level of School	Secondary School	8
	High School	12
Subject	Turkish Literature	3
	Maths	3
	Turkish	2
	Science and Technology	2
	English	2
	Social Sciences	2
	Imam Hatip High School Vocational Courses	2
	Geography	1
	History	1
	Philosophy	1
	Physics	1
Professional Seniority	0-5 Years	1
	6-10 Years	7
	11-20 Years	10
	21 years and more	2
Age	20-30	2
	31-40	12
	41-50	4
	51 and above	2
Total		20

As shown in Table 1, thirteen of the teachers are female and seven are male. The teachers with at least eleven years of professional experience make up the study's participants, who represent eleven different disciplines.

The demographic characteristics of the students participating in the study are presented in Table 2.

Table 2. Descriptive statistics of the students participating in the study

Variables		f
Gender	Male	6
	Female	9
Level of School	Secondary School	10
	High School	5
Number of Siblings	1-3	9
	4-5	6
Number Of Siblings Who Still Study	0	2
	1-3	9
	4-5	4
Having Online Lesson Devices and Internet Connection	Do not have both device and internet connection	12
	Have only devices	2
	Have only an internet connection	1
Total		15

As shown in Table 2, six of the students participating in the study are female and nine are male. Ten of these students are in secondary school, while five are in high school. Most students participating in the study had at least one sibling who is also in school. Twelve students in the study lack access to online learning resources, such as computers, tablets, and internet connections. Two of the students have online lesson equipment but no internet connection, whereas one student has an internet connection but no online lesson equipment.

The demographic characteristics of the parents participating in the study are presented in Table 3.

Table 3. Descriptive statistics of parents participating in the study

Variables		f
Gender	Female	15
	Male	0
Age	20-29	2
	30-39	4
	40-49	9
Educational Status	Primary school	7
	Secondary school	5
	High school	2
	University	1
Occupation	Housewife	15
Monthly Average Income	2000 TL and under	5
	2001 TL - 4000 TL	9
	4001 TL – 6000 TL	1
Total		15

As seen in Table 3, most of the parents participating in the study were at least 40 years old. While most had completed primary or secondary education, only two had graduated from high school, and just one parent had a college degree. All parent participants were female. This was not a deliberate sampling decision. During recruitment, fathers were also invited however, mothers were the primary caregivers responsible for supervising their children's distance education at home and therefore volunteered to participate, whereas fathers reported limited involvement in the process. In the demographic information form, the reported income refers to total household (family) income rather than the personal income of the mothers. Although all participating parents were housewives and did not have individual earnings, household income was primarily provided by other working family members, typically the fathers. Therefore, income data were collected and interpreted at the household level to more accurately reflect the socio-economic conditions of the families.

Data Analysis

The data obtained from the interviews were analyzed using the content analysis technique, which allows for the systematic interpretation of textual data by identifying recurring patterns, categories, and themes (Yıldırım & Şimşek, 2021). The transcribed data were first read multiple times to achieve immersion and to gain a holistic understanding. Following this, initial codes were created through open coding, whereby meaningful units were extracted directly from the participants' statements. The initial codes were examined for similarity and grouped under sub-themes and main themes. This inductive process enabled the themes to emerge directly from the data and remain grounded in participants' experiences. To enhance transparency and traceability, the coding and theme development procedures were documented systematically throughout the analysis process.

To ensure rigor and minimize researcher bias, the coding process was conducted collaboratively by the two main researchers and supported by two independent experts. Inter-coder reliability was calculated using the Miles and Huberman (1994) formula, resulting in a reliability coefficient of .85, which exceeds the accepted threshold of .80. Participant identifiers (e.g., S1 for student, T1 for teacher, P1 for parent) were used solely to distinguish speaker groups in quotations and were not part of the data analysis itself.

Validity and Reliability

To ensure the scientific quality and reliability of this qualitative study, the Trustworthiness criteria, which are preferred in qualitative research over conventional validity and reliability measures, were adopted. To enhance Credibility (internal validity) and the degree to which the findings reflect reality, triangulation was achieved by collecting data from three distinct participant groups—students, parents, and teachers; the findings were supported by direct quotations from participants' original statements; and the interview forms were assured by submitting them to expert review. Regarding Transferability (external validity),

which allows for determining the extent to which findings can be applied to similar contexts, the study context, the participants' socio-economic status, and the sample characteristics were presented in detail using the method of thick description. Finally, to ensure the consistency of findings and the objectivity of researcher interpretations, within the scope of Dependability and Confirmability criteria, inter-coder reliability was established by having a portion of the data independently coded by a second researcher to confirm the objectivity of the content analysis, and the entire data collection and analysis process was transparently documented through the creation of an audit trail.

Ethical Considerations

Throughout the research process, strict adherence to ethical principles was ensured, and the following measures were taken to protect the rights, safety, and dignity of all participants:

Prior to the implementation of the data collection process, official permission was obtained from the Ministry of National Education of Turkey to conduct the research in the designated school. This approval was granted after finalizing the appropriate research design, developing the qualitative interview protocol, and selecting the measurement instruments to be used in the study.

All participants were informed about the purpose and scope of the study, and their voluntary participation was emphasized. Informed consent procedures were followed in accordance with ethical research standards, and parental consent forms were distributed and collected for all minors involved in the research.

To maintain participant confidentiality and protect personal identities, pseudonyms were used throughout the study. Participants' real names were not recorded or reported at any stage. Instead, each participant was assigned a coded identifier (e.g., S1, P2, T3), allowing the researchers to refer to individual contributions while safeguarding privacy. These identifiers also facilitated transparent reporting of qualitative findings without compromising anonymity.

All data were stored securely and used solely for research purposes. The ethical guidelines followed were in accordance with the standards set by international codes such as the American Psychological Association (APA) Ethical Guidelines and the Declaration of Helsinki, particularly regarding voluntary participation, informed consent, and confidentiality.

Limitations

This study, due to its design and specific context, presents certain limitations that must be acknowledged when interpreting and generalizing the findings. Methodologically, the reliance on semi-structured individual interviews means the data are based on self-report, which may be susceptible to social desirability bias or memory issues. Contextually, the research is confined to disadvantaged groups in the Bozüyük district of Turkey, meaning the results are influenced by unique local socio-economic dynamics and therefore limit the direct transferability of the findings to broader regional or international populations. Finally, the scope is primarily constrained by its focus on educational sociology and equity (using Bourdieu's theoretical framework), meaning other relevant aspects of distance learning, such as specific cognitive learning outcomes or technology acceptance models, were not explored in depth.

Findings

This section presents the findings of the content analysis conducted on the data obtained from interviews with disadvantaged students, their parents, and teachers regarding their experiences with distance education.

Findings on the views of disadvantaged students, teachers, and parents regarding distance education

The responses of disadvantaged students, their teachers, and parents regarding their opinions on distance education and its positive and negative aspects are presented in Table 4.

Table 4. The responses of students, teachers, and parents regarding the opinions of distance education during the pandemic

Codes	Student Interview Codes	Teacher Interview Codes	Parents Interview Codes
Lack of device	✓		✓
Sustainability of education	✓	✓	✓
Internet connection problem	✓	✓	✓
Decline in academic achievement	✓		✓
Lack of interaction/communication	✓	✓	
Health problems	✓		✓
Problems attending classes and focusing	✓		✓
Number of schooled siblings	✓	✓	✓
Socialization	✓		✓
Negatives of the home environment	✓		
Reluctance to classes	✓		✓
Reducing the risk of transmission technology literacy		✓	✓

As shown in Table 4, the views of disadvantaged students, their parents, and teachers revealed several recurring issues concerning the distance education process. One of the most reported problems was limited access to technological devices and the internet. Both students and parents emphasized that many households lacked sufficient equipment, and that siblings had to share devices, leading to irregular attendance in online classes. For instance, one student (S1) explained that they tried to attend lessons using mobile data from their parents' phones but often fell behind due to connectivity problems. Another student (S13) stated that having multiple siblings at home meant they had to take turns accessing the computer, which disrupted their study routine and preparation for exams. Similarly, a parent (P4) with four school-aged children noted that only one computer was available at home, and students prioritized important classes while others studied on their own.

Participants also discussed the academic and emotional effects of distance education. Students reported a decline in academic performance and motivation, which they attributed to the irregularity of participation and the lack of a structured learning environment. One parent (P1) shared that their child became demoralized and withdrawn after falling behind in classes, feeling unsuccessful compared to peers. Teachers observed similar patterns and associated the learning loss with students' limited access to educational tools, particularly among those from economically disadvantaged households.

A further theme that emerged was the lack of student–teacher interaction. The one-way communication structure of distance learning platforms, especially EBA TV, limited opportunities for feedback, engagement, and active participation. Teachers noted that this negatively impacted students' sense of belonging and connection to school. Although some students and parents found the EBA TV platform insufficient for academic needs, a few others found it useful in terms of accessibility and alignment with the national curriculum. As one teacher highlighted, while EBA TV lacked interactivity, it still provided curriculum-based content to students who could at least access television, which was seen as a practical advantage for some households.

Despite the challenges, participants also mentioned positive aspects of distance education. Parents appreciated that their children could continue learning from the safety of their homes, and teachers noted that both educators and students gained proficiency in using digital tools and online platforms.

One teacher (T6) emphasized that some students had the opportunity to develop media literacy skills and become more competent in using the internet for educational purposes, rather than just for entertainment. Overall, the findings reflect that while distance education helped maintain educational continuity, it also revealed and deepened existing inequalities in access, participation, interaction, and academic outcomes among disadvantaged students. These challenges were not only technological but also emotional and pedagogical, and were experienced collectively by students, parents, and teachers.

Parental support practices for disadvantaged students in distance education

When focused on the answers given by the students to the question of what their families' views are about their support; ten out of fifteen disadvantaged students reported that when they were unable to attend online live lectures, their family members supported them by explaining the subject matter themselves. Nine students indicated that family members helped them with their homework, and eight students stated that their parents made efforts to provide a calm, clean, and organized environment for studying during distance education. On the other hand, five students emphasized that they received no academic or emotional support from their families during this period.

Student statements illustrate both the diversity and limitations of familial support. For example, one student (S3) described a highly supportive environment, noting: “In distance education, my family has always supported me to work in a quiet, calm, clean, and orderly place. Also, I got help from my sister to do my homework. She explained the things I didn’t understand.” Conversely, another student (S10) reflected a more self-reliant experience: “Obviously, my family did not contribute much to me in distance education. I asked my friends about the topics in the lessons I couldn’t attend and studied on my own.” These findings suggest that while many families tried to compensate for the limitations of distance education by assisting with lessons or creating a conducive study environment, a significant portion of students still lacked the necessary academic and emotional support at home. This disparity in support further reflects the uneven conditions faced by disadvantaged learners and reinforces the need for structured external support systems during remote learning processes.

When focused on the answers given by the parents to the question of what kind of work they do to support their children; nine out of fifteen parents indicated that they supported their children during distance education by regularly checking their homework and exam preparations. Seven parents reported that they created a calm, clean, and organized home environment to help their children focus during online live lectures. Four parents emphasized the importance of emotional support, stating that they tried to boost their children’s motivation and psychological well-being through regular conversations. Additionally, two parents noted that they encouraged daily reading habits and monitored their children’s engagement with books to promote academic continuity.

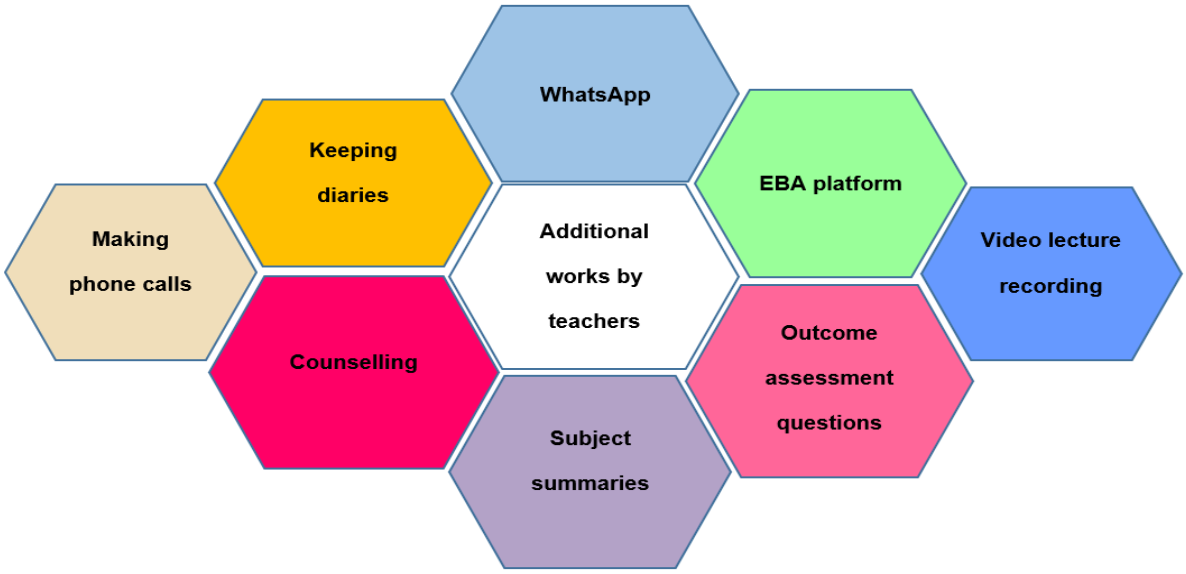
These findings reveal that while not all parents were able to contribute academically—especially those with limited educational backgrounds—many made efforts to compensate by creating structured, supportive environments. One parent (P2) stated: “As I and my wife are primary school graduates, I cannot help the child with his homework and lessons. However, I do my best to help my son study, do homework, and eat regularly and healthily in a clean and quiet place.” Another (P7) highlighted the emotional dimension of support: “We mobilized as a family... we try to ensure that our child has the best time in the process.”

These examples indicate that disadvantaged families, despite facing structural limitations, actively sought to provide both emotional and environmental support. The variation in the type and level of support also illustrates the broader challenges of unequal access—not just to digital tools, but also to academic assistance and parental resources.

Findings on the additional efforts of teachers to support the cognitive and affective development of disadvantaged students

The answers given by the teachers to the question of what kind of additional work they do for the cognitive and affective development of disadvantaged students are given in Figure 1.

Figure 1. Sub-themes for additional work done by teachers in distance education



As shown in Figure 1, all participating teachers reported that they made additional efforts to support students who were unable to attend online lessons. One of the most common strategies was sharing educational materials via WhatsApp, as all twenty teachers stated they used this platform to send summaries, assignments, and test questions. In addition, sixteen teachers indicated that they also uploaded similar materials to the national EBA platform, making them accessible through official channels.

A large portion of teachers focused on cognitive support: fifteen teachers prepared outcome assessment questions, and thirteen created topic summaries tailored for students who missed instruction. These materials were intended to help students catch up with missed content independently.

Some teachers also addressed the affective development of their disadvantaged students. Six teachers reported guiding students emotionally through regular encouragement and informal conversations. Two teachers stated they encouraged students to keep personal diaries to reflect on their feelings, and another two teachers maintained regular contact through phone calls. Interestingly, only one teacher reported preparing and sending personalized video lessons to support individual students' learning.

Teachers emphasized the importance of accessibility and personalization in these efforts. For example, one teacher (T1) explained: “I send summaries and exercises via WhatsApp to ensure students who cannot attend still receive the content. Even if they miss the class, they have the materials.” Another teacher (T12) added: “I sent activities such as summaries and unit tests as Word and PDF files via WhatsApp or EBA. Then, I followed up with students via phone or video if they needed further explanation”.

These findings suggest that teachers undertook considerable efforts beyond their standard duties to reduce learning loss and maintain both cognitive and emotional engagement. However, the fact that only a few teachers produced video content or engaged in sustained affective support highlights the limitations and challenges of reaching disadvantaged students consistently during distance education.

Conclusion, Discussion and Suggestions

In this part of the study, which investigates the impacts of distance education on disadvantaged groups based on the views of teachers, students, and parents, the findings derived from the participants' interview responses are presented along with corresponding discussions and recommendations.

Conclusion and discussion

The findings of this study indicate that while distance education ensured continuity in instruction, it failed to meet the learning needs of disadvantaged students due to limited access to devices, unstable internet connectivity, and insufficient teacher-student interaction. From the lens of Bourdieu's theory of cultural capital and social reproduction, this disparity can be interpreted as an extension of structural inequalities that already exist in formal education.

Bourdieu (1977) argues that students from privileged backgrounds enter the education system already equipped with cultural capital—linguistic ability, cognitive strategies, and behavioral norms—that align with the expectations of educational institutions. In contrast, disadvantaged students often lack access to these forms of capital and are therefore positioned at a systemic disadvantage. The inability of many disadvantaged students in this study to regularly attend online live lectures due to material limitations is not merely a logistical problem; it reflects a broader misalignment between the institutional structure of distance education and the lived realities of marginalized groups.

One of the significant findings of this study is that the prolonged time students spent at home due to school closures negatively impacted their social and interpersonal skills. Particularly for disadvantaged students who lacked access to distance education tools, the inability to join online live lectures further deepened this problem. The lack of interaction with peers and teachers, which is vital for the social development of students at formative stages, led to a decline in interpersonal competencies. This aligns with the findings of Daniela et al. (2021), who emphasized that the risk of social exclusion increases for students without access to digital tools.

In addition, it was found that most disadvantaged students did not follow EBA TV broadcasts, considering them insufficient for their academic development. However, a small number of students reported that EBA TV allowed content repetition and assisted them in preparing for exams. Contrastingly, İnci-Kuzu (2000) found that primary school parents considered EBA TV and the EBA platform highly effective, with their children widely using them. The difference may be attributed to the increased autonomy and metacognitive awareness of middle and high school students, who preferred online live lectures and self-study over one-way televised instruction. For students from low-income families lacking internet access and devices, even EBA TV did not suffice, particularly when no supplementary written materials were provided for independent learning, as emphasized by Yıldız and Akar-Vural (2020).

Teachers who participated in the study emphasized that distance education provided certain benefits, particularly in maintaining instructional continuity and improving both teachers' and students' digital competencies. These findings are consistent with previous research conducted in Türkiye, which similarly reported that the distance education period accelerated teachers' technological skill development and increased familiarity with digital platforms such as EBA and Zoom (Bozkurt, 2020; Özüdoğru, 2021). In this respect, the present study confirms national evidence indicating that the pandemic functioned as a catalyst for digital capacity building among teachers. However, the current findings also extend this literature by highlighting that such gains were not experienced equally across all student groups. While teachers reported increased competence, disadvantaged students continued to face serious barriers related to limited access, low participation, and insufficient interaction. Consistent with earlier Turkish studies that identified lack of interaction and unequal access as major challenges (Bozkurt et al., 2020), the present study demonstrates that these problems were more

pronounced for socio-economically disadvantaged learners. Thus, the results suggest that improvements in teacher readiness alone were insufficient to mitigate structural inequalities.

Findings also reveal that during this period, many parents of disadvantaged students attempted to create a comfortable home environment and support their children's learning. They helped with homework, organized reading activities, and provided psychological support while their children were at home. It was observed that disadvantaged students in the sample received both cognitive and emotional support from their parents. However, it was also noted that parents of secondary school students tended to provide more emotional than academic assistance. This can be attributed to the fact that most parents in this group have only completed basic education, limiting their capacity to provide academic support. Teachers, on the other hand, tried to compensate for the cognitive deficiencies of their disadvantaged students by preparing additional learning materials such as content summaries and assessment questions. They also conducted phone calls and provided guidance to help students cope with the emotional challenges of the remote learning process. These joint efforts by teachers and parents in motivating and emotionally supporting disadvantaged students helped prevent the complete loss of engagement and promoted academic resilience.

These findings are consistent with previous research. Günbaş and Gözücük (2020) observed that during the remote learning period, teachers supported students by preparing instructional materials, video lessons, and audio recordings, while parents helped their children with their assignments. Gür and Filiz (2022) found that some parents actively prepared appropriate learning environments at home and supplied the materials necessary for lessons. They also reviewed subjects with their children and encouraged active participation in learning. Similarly, Demir and Göloğlu-Demir (2020) reported that nearly all parents followed their children's distance education activities, ensured they attended online classes, and made efforts to keep their motivation high throughout the process

Suggestions

Considering the findings derived from the perspectives of disadvantaged students, teachers, and parents, several recommendations are proposed for improving the equity and accessibility of distance education.

Firstly, while online education has proven effective in maintaining instructional continuity, the findings of this study reveal that students with limited or no access to internet or digital devices were systematically excluded from meaningful participation. Therefore, instead of relying solely on digital strategies such as flipped classroom or interactive e-learning tools—which require stable internet connections—it is recommended that offline-accessible educational solutions be integrated. These may include USB-based educational content, printed modular materials, and pre-recorded lectures broadcast via national television or radio, specifically designed for students in remote or underserved areas.

Secondly, the study underscores the need for blended learning models that combine both face-to-face and distance education, especially in regions where infrastructure allows it. However, during periods of full school closures, more context-responsive models—such as mobile classroom buses, neighborhood learning hubs with rotating tutors, or community-based peer mentoring programs—should be considered to ensure continued access to learning for those who are digitally excluded.

To address structural inequalities, it is also vital that device distribution programs be expanded beyond existing quotas. Collaborations between the Ministry of National Education, local governments, NGOs, and community-based organizations can facilitate more inclusive access to learning technologies. Importantly, these efforts must be paired with basic digital literacy training for both students and their families to enable effective usage.

Regarding future research, while this study employed a qualitative approach to explore the lived experiences of disadvantaged groups, further investigations using mixed-methods designs are encouraged. These can integrate survey-based instruments to measure attitudes and outcomes, while still capturing rich contextual data through interviews or observations. Additionally, comparative studies across different regions of Türkiye would provide valuable insights into how regional disparities intersect with educational inequalities.

More targeted research should also focus on specific sub-groups within disadvantaged populations—such as migrant students with disabilities, children from seasonal agricultural families, or children of refugees—to explore the intersectionality of disadvantage in educational access.

Finally, this study is limited in that it was conducted during a period of complete school closures, when all forms of learning were remote. Therefore, the recommendations made here should be understood within that context. Future studies could also evaluate how the return to face-to-face or hybrid models has affected these same groups, allowing for longitudinal comparison of educational recovery.

References

Adıgüzel, O. (2019). *Eğitim programlarının geliştirilmesinde ihtiyaç analizi el kitabı*. Anı Yayıncılık.

Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karabel & A. H. Halsey (Eds.), *Power and ideology in education* (pp. 487-511). Oxford University Press.

Bozkurt, A. (2020). Koronavirüs (Covid-19) pandemi süreci ve pandemi sonrası dünyada eğitime yönelik değerlendirmeler: Yeni normal ve yeni eğitim paradigması. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, *6*(3), 112-142. https://dergipark.org.tr/tr/download/article-file/1215818

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, *15*(1), i-vi. https://www.asianjde.com/ojs/index.php/AsianJDE/article/view/447/297

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., ... & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, *15*(1), 1-126. https://doi.org/10.5281/zenodo.3778083

Daniela, L., Rubene, Z., & Rudolfa, A. (2021). Parents' perspectives on remote learning in the pandemic context. *Digital Technologies for Sustainable Education*, *13*(7). https://doi.org/10.3390/su13073640

Demir, E., & Göloğlu-Demir, C. (2021). Investigation of parents' opinions about distance education during the COVID-19 pandemic. *Turkish Online Journal of Distance Education-TOJDE*, *22*(2), 42-57.

Di Pietro, G., Biagi, F., Costa, P., Karpiński, Z., & Mazza, J. (2020). *The likely impact of COVID-19 on education: Reflections based on the existing literature and recent international datasets* (JRC Technical Report). Publications Office of the European Union. https://publications.jrc.ec.europa.eu/repository/handle/JRC121071

Günbaş, N., & Gözücük, M. (2020). Covid-19 pandemi sürecinde yürütülen uzaktan eğitimle ilgili ilkokul öğrenci velilerinin görüşleri. *Sakarya University Journal of Education*, *10*(3), 686-716. https://dergipark.org.tr/tr/pub/suje/issue/58184/789705

Gür, H., & Filiz, A. (2022). Parents' views on distance education during the Covid-19 pandemic. *Journal of Educational Technology & Online Learning*, *5*(1), 84-104.

Gürbüz, S., & Şahin, F. (2018). *Sosyal bilimlerde araştırma yöntemleri: Felsefe, yöntem ve analiz*. Seçkin Yayıncılık.

Hammond, R. L. (1967). *Evaluation at the local level*. EPIC Evaluation Center. https://files.eric.ed.gov/fulltext/ED016547.pdf

Hodges, C. B., Moore, S., Lockee, B. B., Trust, T., & Bond, M. A. (2020). The difference between emergency remote teaching and online learning. *EDUCAUSE Review*.

https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning

İnci-Kuzu, Ç. (2020). Covid-19 pandemisi sürecinde uygulanan ilkokul uzaktan eğitim programı (EBA TV) ile ilgili veli görüşleri. *Milli Eğitim*, *49*(1), 505-527.

Kuş, Z., Mert, H., & Boyraz, F. (2021). COVID-19 salgını süresince eğitimde fırsat eşit(siz)liği: Kırsal kesimdeki öğretmen ve ebeveyn görüşleri. *Eğitim Teknolojisi Kuram ve Uygulama*, *11*(2), 470-493. https://dergipark.org.tr/tr/pub/etku/issue/62888/913684

Merriam, S. B. (2015). *Nitel araştırma: Desen ve uygulama için bir rehber* (S. Turan, Çev.). Nobel Yayıncılık.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Sage Publications.

MoNE. (2020). *2020 yılı idare faaliyet raporu*. T.C. Millî Eğitim Bakanlığı Strateji Geliştirme Başkanlığı. https://sgb.meb.gov.tr/meb_iys_dosyalar/2021_02/26105345_2020_YILI_IDARE_FAALIYET_RAPORU.pdf

OECD. (2020). *The impact of COVID-19 on education: Insights from Education at a Glance 2020*. OECD Publishing. https://doi.org/10.1787/d9731671-en

Özüdoğru, G. (2021). Problems faced in distance education during Covid-19 pandemic. *Participatory Educational Research*, *8*(4), 321-333. https://dergipark.org.tr/tr/pub/per/issue/63032/959582

Patton, M. Q. (2018). *Nitel araştırma ve değerlendirme yöntemleri* (M. Bütün & S. B. Demir, Çev. Ed.). Pegem Akademi.

Reimers, F. M., & Schleicher, A. (2020). *A framework to guide an education response to the COVID-19 pandemic of 2020*. OECD. https://read.oecd-ilibrary.org/view/?ref=126_126988-t63lxosohs&title=A-framework-to-guide-an-education-response-to-the-Covid-19-Pandemic-of-2020

Sönmez, V., & Alacapınar, F. G. (2014). *Örneklendirilmiş bilimsel araştırma yöntemleri*. Anı Yayıncılık.

TEDMEM. (2023). *Bir bakışta eğitim 2022: Türkiye üzerine değerlendirmeler ve izleme raporu*. TEDMEM. https://tedmem.org/storage/publications/February2023/FvZgqcTeABuqBueLWx50.pdf

UNESCO. (2020). *Education: From disruption to recovery*. UNESCO. https://en.unesco.org/covid19/educationresponse

Van Deursen, A. J. (2020). Digital inequality during a pandemic: Quantitative study of differences in COVID-19-related internet uses and outcomes. *Journal of Medical Internet Research*, *22*(8), e20073. https://doi.org/10.2196/20073

World Bank. (2021). *Update on the deepening effects of the COVID-19 crisis in IDA countries*. World Bank. https://documents1.worldbank.org/curated/en/471981603208959928/pdf/Update-on-the-Deepening-Effects-of-the-COVID-19-Crisis-in-IDA-Countries.pdf

Yıldırım, A., & Şimşek, H. (2021). *Sosyal bilimlerde nitel araştırma yöntemleri*. Seçkin Yayıncılık.

About the Author(s):

Nuriye Batmaz Derer; Ministry of National Education, Türkiye, nurderer@windowslive.com, https://orcid.org/0000-0003-4279-9159

Özgür Kürşad Derer; Ministry of National Education, Türkiye, ok.derer@outlook.com.tr, https://orcid.org/0000-0002-2383-5540

Author's Contributions (CRediT)

Nuriye Batmaz Derer: Conceptualization, methodology, supervision, writing – review & editing. All authors have read and agreed to the published version of the manuscript. Özgür Kürşad Derer: Conceptualization, methodology, writing – original draft, writing – review and editing.

Sustainable Development Goals (SDGs)

This study is linked to the following SDG(s): No poverty (SDG 1), Quality education (SDG 4), and Reduced inequalities (SDG 10).

Data Accessibility Statement

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Ethics and Consent

In this study, the necessary ethics committee permissions were obtained, and consent forms were obtained from the participants in order to ensure ethical standards. The identities of the participants were protected; pseudonyms were used.

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