

DISTANCE EDUCATION IN TURKIYE DURING THE COVID-19 PANDEMIC: WHAT DO STAKEHOLDERS THINK?

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ABSTRACT

This research attempted to assess the status of distance education implemented in Turkiye during the COVID-19 pandemic based on stakeholders' (students, parents, pre-service teachers, teachers, and academics) opinions and was completed in the phenomenological study framework. With this aim, stakeholders' views within the study's purview were collected during April 2021 with an online semi-structured interview form with pandemic precautions. The data were examined with content analysis using the MAXQDA 2020 qualitative data analysis program. The interview questions principally focused on four themes, namely readiness for distance learning, benefits, adequacy, and continuation. It can be deduced from stakeholder's opinions that though Turkiye was unprepared for distance education, the adaptation eventuated in a short time. There were differences in educational organizations' readiness levels, and the views on infrastructure's inadequacy explained this situation. They found distance education to be positive from psychological, situational, educational, and economic aspects. They deemed it indispensable for education to continue and for the use of technology in education. However, the lack of interaction in distance education, digital impossibilities, and other factors were the negative aspects. The stakeholders participating in this research emphasized that rather than being adequate, distance education was inadequate due to interaction- and infrastructure-related issues. Though there were negative opinions about the continuation of distance education in the transition to formal education after the COVID-19 pandemic precautions ended, findings revealed that it may continue simultaneously with formal education and may provide compensatory or supportive education. Additionally, further research is needed regarding the generalizability and educational outcomes of distance education implemented during the COVID-19 pandemic.

Keywords: COVID-19, pandemic, distance education, stakeholders' views, Turkiye.

INTRODUCTION

Distance education was introduced as an alternative to formal education. Just as an individual chooses, distance education may be implemented in situations like being disabled, being incarcerated, transport, settlement, opportunities, and extraordinary conditions like various natural or human disasters. An example of such exceptional situations from recent times is the COVID-19 pandemic. Coronavirus is a virus group categorized as alphacoronavirus and betacoronavirus, that frequently causes cold or other mild upper respiratory tract infections in the human body (Law et al., 2020). The 2019 novel coronavirus (SARS-CoV-2) was identified in a patient's throat in Wuhan, Hubei province in China on January 7, 2020 by the Chinese Disease Control and Prevention Center (Huang et al., 2020; The World Health Organization [WHO], 2020). Though initiated in China, it rapidly spread to other southeast Asian countries and subsequently to 185 countries. The spread of a virus around the world is generally referred to as a pandemic (WHO, 2010). Due to the COVID-19 pandemic, countries were forced to close their borders and enter quarantine and shape a new education system worldwide (Gilani, 2020). Countries, where COVID-19 was widespread, had to take a multitude of precautions led by the professionals in the fields of health and economics, education, military, and social services.

According to UNESCO (The United Nations Educational, Scientific and Cultural Organization), many countries suspended formal education in educational institutions with this pandemic's spread. However, 20 countries including Turkmenistan, Belarus, and Singapore chose to continue with their formal education. The formal break in education during a pandemic is not a unique implementation. During the Ebola epidemic (2014–2016), various West African countries disrupted formal education for durations ranging from five to nine months (Ciavarella et al., 2016). In the fall of 2009, 67% of H1N1 emergency plans replaced face-to-face classes with online classes (Allen, & Seaman, 2013). Other forms of natural disasters are also covered by COVID-19 comparators. Hurricane Katrina, which made landfall in August 2005, physically damaged 27 colleges in the Gulf region and others in Texas, leaving courses on campus impossible (Meyer, & Wilson, 2011). Studies have stated that closing educational organizations for specific periods lowered the spread of epidemics such as influenza and H1N1 (Ferguson et al., 2006). However, this is the first time that formal education has been disrupted worldwide. Children in both developed and developing economies cannot go to school. However, this does not mean that education has come to a halt (Korlu, 2020).

MEASURES FOR SUSTAINING LEARNING

In this crisis, which has never been encountered in education systems, and for which they were unprepared, many countries took a variety of precautions to mitigate learning losses. They began to implement distance education applications (Cetinkaya Aydin, 2020). However, online learning has not only been implemented in response to the crisis. The development of the internet and networking technology has enabled learners to study regardless of their location. Online learning has thus been proposed as a plausible and effectual alternative to face-to-face learning (Stacey et al., 2004).

Due to the COVID-19 pandemic, all educational facilities in 124 countries, including Türkiye, ceased formal education, with schools in certain regions closed in 11 other countries. The first COVID-19 case was identified in Türkiye on March 11, 2020. The Ministry of National Education (MoNE) adopted a range of precautions in the area of education to intervene against COVID-19. After identifying the first case, MoNE announced schools would remain closed for two weeks from March 16 to March 30. This announcement brought the one-week mid-term break planned for April forward and stated that distance education activities would begin from March 23 (MoNE, 2020a). A new announcement on March 25 noted that schools would remain closed until April 30 and distance education would continue during this process (Calik Gocumlu, & Guven, 2020). On the scientific council's advice, an announcement on April 30 by Minister of National Education of Türkiye, Ziya Selcuk, stated that schools might open on June 1, 2020 (Milliyet, 2020, 29 April). However, on May 18, 2020, the President announced after a cabinet meeting that the new academic year would commence in September. Ziya Selcuk announced via Twitter that distance education would continue until June 19 (Selcuk, 2020a). Schools in Türkiye opened on September 1, 2020, and started the winter break on January 22, 2021. Then, as of February 15, 2021, the decision was made by the government to gradually transition to face-to-face training. On March 1, 2021, the "controlled normalization" of Türkiye within the scope of the decisions taken by all the pre-school educational institutions in general, in elementary school, 8th and 12th grades was passed face-to-face training (Tedmem, 2021). Moreover, face-to-face training was initiated at all levels in low- and medium-risk settlements. Distance education activities in Türkiye during the COVID-19 pandemic were completed using the Education Information Network (EIN) existing content, new contents, and on television channels with a broadcast of programs with lesson contents prepared in accordance with the class levels.

EMERGENCY DISTANCE EDUCATION

The existing literature highlights the impact of COVID-19 on education in many parts of the world, especially with respect to the challenges, constraints and challenges facing governments, institutions and stakeholders (Huber, & Helm, 2020; Judd et al., 2020; National Foundation for Educational Research [NFER], 2020; Zhang et al., 2020). Other publications emphasize experiences, innovations, and strategies to manage distance education (Ferdig et al., 2020) and descriptions of how institutions and stakeholders have adapted to the new scenario created by the COVID-19 pandemic (Bao, 2020; Moorhouse, 2020; Zhang et al., 2020).

The new normal created by the COVID-19 pandemic has accelerated the transition to online teaching. The current scenario entails a rapid pedagogical change from conventional to online training, from personal to virtual training, and from seminars to webinars (Mishra et al., 2020). While technology provided schools and colleges with the ability to transition to online teaching during the Spring 2020 semester, for the remainder of the semester emergency distance education was provided and not online learning (Bozkurt, & Sharma, 2020; Marinoni et al., 2020; Schlesselman, 2020). While this transition process is smooth for certain educational institutions, it still poses an intractable challenge for some educational institutions. In this sense, online distance education and emergency distance education are not the same. In emergency distance education, what is currently being done should be considered only a temporary solution to an immediate problem (Golden, 2020; Hodges et al., 2020).

The transition to online teaching owing to COVID-19 brought a multitude of challenges for both the teachers and the students. These challenges were associated with the distance between teachers and their students instead of the conventional classroom teaching (Moore, 2014) and/or lack of online teaching experience (Johnson et al., 2020). In online learning, the teacher-student relationship was weak compared to conventional education. On the one hand, the teachers cannot see the students' faces and only hear their voices. On the other hand, students have problems transferring their learning experiences in face-to-face learning environments to online learning environments. Teachers had to change to online teaching, requiring them to use various digital tools and resources to resolve different issues and implement new teaching and learning approaches (Eickelmann, & Gerick, 2020). Other problems have been pointed out with regard to teachers' difficulties in applying information communication techniques, interaction with pupils, organization of online learning materials, and lack of adequate facilities for students (Verma et al., 2020).

Challenges related to a sudden shift to online delivery in response to the pandemic; lack of online instructional experience, limited time to complete the transition, technical barriers, and poor learning environments for students working remotely (Bao, 2020). Therefore, the current situation poses a problem in which, on the one hand, teachers must use and explore online education opportunities. Besides, some teachers lack knowledge and expertise in delivering online education, and there is a high level of stress for students. There is concern that poor delivery of online teaching may have negative long-term implications for online teaching as a method of teaching (Moor, 2020). Teacher narratives sometimes reveal low participation in online courses due to lack of parental supervision, inadequate Internet access, and teacher resources and expertise (McKenzie, 2020). However, it was noted that students used multiple methods to access their curriculum—television, telephones, and other devices (COVID-19 update media briefing, June 9, 2020; George, 2020). In these circumstances, questions about the ongoing motivation of online learners to relieve their stress and anxiety are of critical importance. It should be prioritized by educators while implementing such a method of emergency distance learning (Adedoyin, & Soykan, 2020; Bozkurt, & Sharma, 2020).

Compared to face-to-face teaching, teachers reported spending more time getting used to the online teaching environment. They were required to design innovative methods to engage with students and gauge the comprehension of the content being taught of each student (Scull et al., 2020). Beyond the pedagogical objectives, teachers had to communicate with their students to account for the social integration of their learning groups (Konig et al., 2020). Students familiar with face-to-face interactions had to adapt rapidly to distance education and the online environment. The multifaceted changes and restrictions concomitant to COVID-19 and the resulting psychosocial stressors confronting the learners and the educators exacerbated the challenges concerned with the rapid transition to distance learning (Marshall, & Wolanskyj-Spinner, 2020; Saddik et al., 2020). Before, during, and after their online interactions, educators and learners needed to increase networking, promote humanity and empathy in their connections, and improve their communicative effectiveness (Carlson, 2020). This experience influenced how they create meaning and reflect upon learning and teaching (Li, & Bailey, 2020).

A number of emergency distance education studies have been conducted. During this period, the field of applied education especially faced difficulties. Their countries have experienced the transition to emergency distance. Although some countries are prepared for this situation, they are likely to be overwhelmed with such unprecedented transitions. States and non-governmental organizations have published various policies and reports (Di Pietro et al., 2020; Economic Commission for Latin America and the Caribbean [ECLAC] and UNESCO, 2020; Emma, & Holie, 2020; United Nations International Children's Emergency Fund

[UNICEF], 2020; United Nations [UN], 2020) to prepare for distance education during the pandemic. In addition to research on responses to emergency distance education (Appolloni et al., 2021; Bozkurt, & Sharma, 2020; Crowford et al., 2020; Lindner et al., 2020; Murphy, 2020) and health education (Al-Balas et al., 2020; Daroedono et al., 2020; Pather et al., 2020; Sindiani et al., 2020) numerous investigations have been conducted. The use of technology in emergency distance education (Chick et al., 2020), the impact of social networks on education (Nadeak, 2020), home learning (Putri et al., 2020; Suryaman et al., 2020), and other related issues have been examined. Other studies have attempted to identify new strategies for understanding different subjects (Capahay, 2020; Pace et al., 2020; Toquero, 2020), present different preparedness measures for emergency distance education (Churiyah et al., 2020), and to gain a global perspective (Bozkurt et al., 2020).

There have been a number of studies on students, teachers, education administrators, teacher education, and higher education and related themes such as the views on emergency distance education of students (Daroedono et al., 2020; Durak, & Cankaya, 2020; Mulyanti et al., 2020; Wangadinata et al., 2020), teachers (Balaman, & Hanbay Tiryaki, 2021; Fauzi, & Sastra Khusuma, 2020; Giovannella, Passarelli, & Persico, 2020; Karakaya et al., 2020; Korkmaz, & Toraman, 2020), both students and teachers (Hebebe et al., 2020), education administrators (Johnson et al., 2020), and the parents with children (Garbe et al., 2020).

During the pandemic, there have been studies on online and urgent distance education at a higher education level (Ali, 2020), students' acceptance of distance education (Rizun, & Strzelecki, 2020; Yilmaz Ince et al., 2020;), and post-pandemic higher education (Pham, & Ho, 2020). Finally, when the research on the challenges and opportunities of emergency distance education are examined, it can be deduced that it presents intractable challenges. The studies were conducted with one (student, teacher, etc.) or several (teacher-student, teacher-school, etc.) pillars of education. It can be said that there are very few studies in the literature that reflect different perspectives on emergency distance education. Therefore, this study can be deemed imperative to examine the standpoint of stakeholders (students, parents, pre-service teachers, teachers, and academics) on emergency distance education implemented during the COVID-19 pandemic.

PURPOSE OF THE STUDY

The transition to emergency distance education due to the COVID-19 shutdown has also markedly changed the way students and teachers interact and learn. This urgent distance education was a process that required adaptation by all stakeholders. This situation made it essential for the stakeholders to interact, communicate, work, and cooperate in an unprecedented manner. Although the closure of educational institutions during the transition to emergency distance education causes some difficulties and disruptions, it may generate diverse learning opportunities. Most of previously conducted studies have focused on the differences in students' performance, attitudes, and the effect of online learning on academic success. Data in this research, gathered in Turkiye during COVID-19, were obtained from stakeholders regarding the emergency distance education process. These data are associated with the themes determined by the researcher, namely the readiness for distance education, usefulness of distance education, adequacy of distance education, and continuity of distance education. These themes were analyzed and explained with sample expressions. The visual for this frame is illustrated in Figure 1.



Figure 1. Research themes of the COVID-19 emergency distance education process

MoNE in Türkiye, due to the COVID-19 pandemic, has allowed emergency distance education. With this decision, the government adopted measures to reduce the learning loss of students. In this process, the technological opportunities of millions of students from different socio-economic levels were not questioned. Emergency distance education did not just affect students. Working parents, in particular, found it difficult to manage their children having distance education. Children were exposed to digital screens in an unusual manner. This screen addiction may have caused severe problems. The technological possibilities of teachers for emergency distance education were not questioned either. Distance education mode was adopted under the assumption that everyone had technological accessibility. Teachers whom themselves had school-age children had problems like other working parents. It is possible to express the same problems regarding the training of pre-service teachers. Teachers and academicians with low perception and motivation for using technology encountered problems in the emergency distance education process. Pre-service teachers returned to their native place during the emergency distance education process. As they lived in rural areas, they were confronted with various technical and technological issues. It is worth noting that stakeholders of education had diversified positive or negative experiences in the distance education process. In this context, together with the institutions and stakeholders with Türkiye, applied emergency readiness to distance education, aimed to uncover the positive and negative aspects of distance education emergency. It is imperative to question the adequacy of emergency distance education to minimize the loss of learning and achieve learning goals. Furthermore, it is worthwhile to investigate the extent to which emergency distance education should continue and its effect on formal education after the COVID-19 pandemic. Besides, based on the findings of this study, a number of meaningful suggestions are made for the sustainability of learning during the COVID-19 pandemic. Within the scope of this study, participant stakeholders were asked the following questions:

1. Do you think the educational organizations in Türkiye were ready for distance education during the COVID-19 pandemic?
2. According to stakeholders, what are the positive aspects of distance education implemented during the COVID-19 pandemic?
3. According to stakeholders, what are the negative aspects of distance education implemented during the COVID-19 pandemic?
4. Do stakeholders find distance education implemented during the COVID-19 pandemic adequate (satisfactory)?
5. Do stakeholders want distance education to partly or wholly continue after the end of disruptions that occurred due to the COVID-19 pandemic?

METHOD

This research was designed with the qualitative research method. Qualitative research attempts to extract pertinent information from participants' viewpoints, and uses explanatory and inductive methods (Miles, & Huberman, 2016). To determine the opinions of stakeholders (students, parents, pre-service teachers, teachers, and academics) regarding distance education implementation in Türkiye during the COVID-19 pandemic, phenomenology's qualitative research pattern was chosen. Christensen et al. (2015) defined phenomenology as a qualitative research method wherein one or more participants try to explain how they experience a phenomenon. The closure of formal education and emergency distance education due to the COVID-19 pandemic has been identified as the principal research phenomenon in this study.

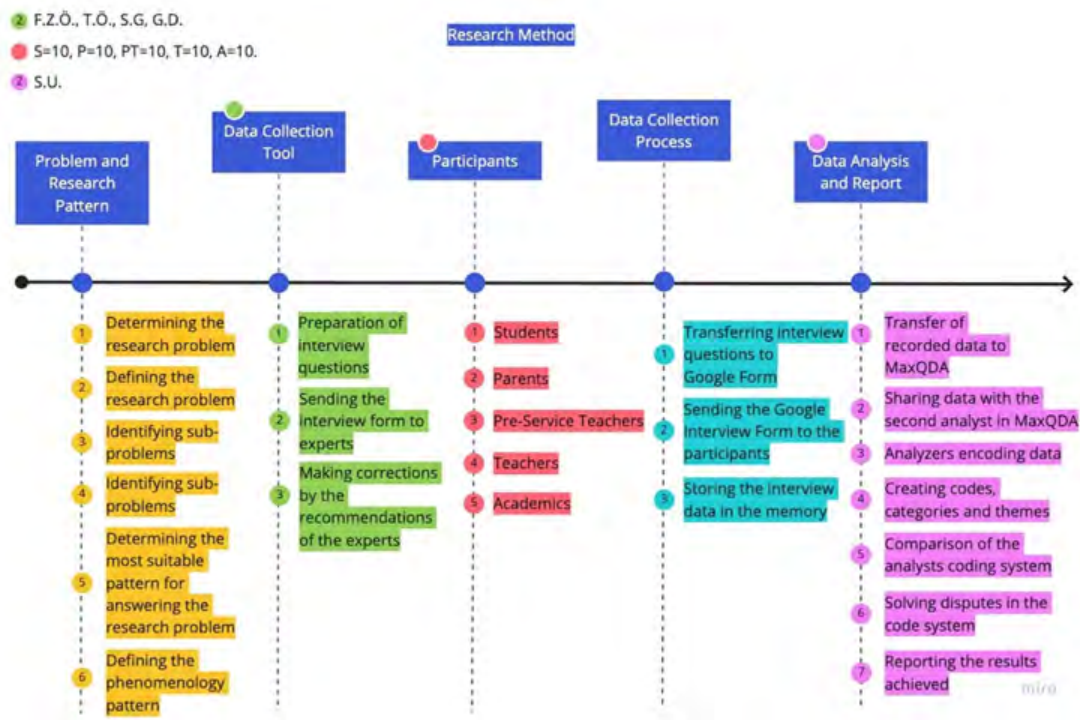


Figure 2. Research Method

Participants

More than one sampling method was used to determine the study group for the research. These were the non-random criteria, snowball (chain), and maximum diversity sampling methods. When choosing the study group:

1. Criteria were that stakeholders were students and pre-service teachers receiving distance education, teachers and academics who provided distance education, and parents who had children receiving distance education.
2. After approaching stakeholders who abided by these criteria, we approached more volunteer participants with these criteria.
3. The participation rates of stakeholders (students, parents, pre-service teachers, teachers, and academics) were close.

Table 1. Demographic Characteristics of Participants

Student			Parent			Pre-service Teacher*			Teacher**			Academician***		
ID	G	A	ID	G	A	ID	G	A	ID	G	A	ID	G	A
S1	F	20	P1	F	35	PT1	F	20	T1	M	38	A1	M	35
S2	M	22	P2	F	39	PT2	F	21	T2	F	35	A2	M	35
S3	F	19	P3	F	40	PT3	F	19	T3	F	36	A3	M	32
S4	F	14	P4	M	43	PT4	M	21	T4	F	30	A4	F	36
S5	F	18	P5	F	38	PT5	M	21	T5	M	29	A5	F	36
S6	M	24	P6	M	40	PT6	F	22	T6	M	48	A6	M	38
S7	M	14	P7	M	46	PT7	F	22	T7	F	33	A7	M	34
S8	F	13	P8	F	37	PT8	F	23	T8	F	37	A8	M	39
S9	M	10	P9	F	41	PT9	M	23	T9	F	27	A9	F	36
S10	F	11	P10	F	47	PT10	F	25	T10	M	43	A10	M	38

* Pre-service teachers who receive teacher education in Education Faculties.

** Teachers working in schools affiliated with the Ministry of National Education (MoNE).

*** Faculty members working at universities affiliated with the Turkish Higher Education Council (HEC).

This research included a total of 50 stakeholders with 10 students (six female and four male) at different educational levels, 10 parents (seven female and three male), 10 pre-service teachers (seven female and three male), 10 teachers (six female and four male), and 10 academicians (four female and six male). During data analysis, stakeholders were coded based on variables such as gender and class level, with students S1, S2, and S3; parents P1, P2, and P3; pre-service teachers PT1, PT2, and PT3; teachers T1, T2, and T3; and academics A1, A2, and A3.

Data Collection and Analysis

The research used a semi-structured interview form. Questions in this form were revised after receiving opinions from two academics (FZO, TO) and two teachers (SG, GD) to arrive at the final form. Due to a number of precautions during the COVID-19 pandemic, data were acquired through Google Forms by the research's texture. An informed, voluntary consent form was given to the stakeholders participating in this study. This consent form included information about this research's objectives and procedure, the confidentiality of the interviews, storage and analysis of the data, publication of the results, methods of using personal information, and researcher's role. The data collected online were classified and saved directly in an external hard disk.

Research data were analyzed using content analysis. Creswell (2014) remarked that the principal procedural steps for content analysis in qualitative research are preparation and organization of data, data coding, associating codes to reduce themes, presenting, and interpreting findings. The interview forms collected from stakeholders were saved in an external disk. Afterward, the transcripts were coded into terms, patterns, and codes using the MAXQDA software continuously until no further information was obtained. Coding was accomplished by classifying and naming elements based on suitability and having the same theme group features. Finally, a thorough analysis was performed after combining and eliminating the codes. A qualitative research code is mostly a word or short phrase communicating an extract and/or stimulating attribute that is notable and summarizes a portion of the language-based or visual data (Saldana, 2016). In this context, the resultant themes, categories, and codes attained by analyzing the data obtained were visualized and presented in MAXMaps according to their repetition frequency (f). The visuals and explanations developed by Zayimoglu Ozturk et al. (2020) to better read the figures presented in the research findings are illustrated in Figure 3.

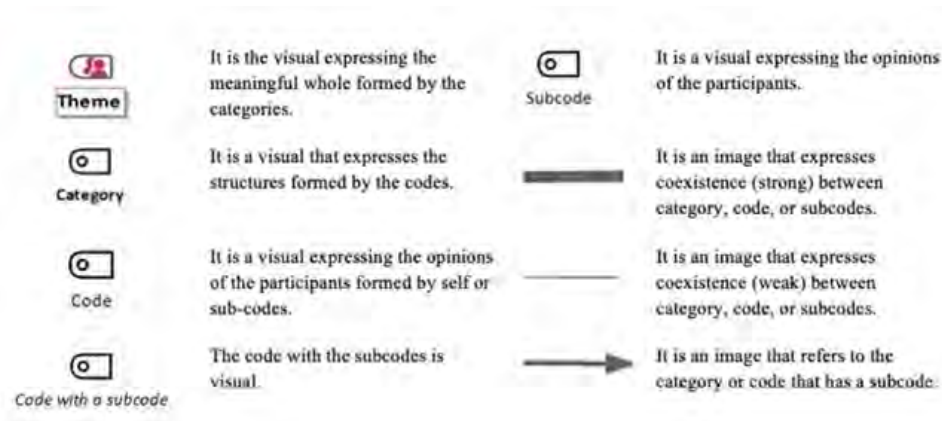


Figure 3. Expressions Used in Data Visualization

The multiple analyst triangulation method was used to confirm the validity and reliability of the themes and codes reached during the research. This method involves an independent analysis of the same qualitative data by two or more people and comparing the findings (Patton, 2014). As a result, all data were independently coded by an expert in class education, and then the researcher and expert compared coding systems. As a result of this comparison, the formula with values above 70% indicating an acceptable reliability of comparisons recommended by Miles and Huberman (2016) (reliability = agreement number/agreement + disagreement number X 100) was applied and the reliability value was calculated as 89%. The validity of qualitative research may be provided by diversifying data, explaining study group features, reporting data in detail, and quoting data in studies (Creswell, 2014; Johnson, & Christensen, 2014). As a result, codes were visualized and presented based on which stakeholder made the statement, code network and code matrix, the frequency (f) of code statements. In addition to this work, by declaring the codes openly and clearly and supporting them with direct quotes, it was attempted to increase the study's validity and reliability. Data collection and analysis procedures were clearly explained about the researcher's role and competency.

FINDINGS

The research results start with a brief overview of the participants' experiences in distance education implemented in the COVID-19 process. The aim is to reveal the state of readiness, opportunities, difficulties, competence, and continuity for distance education applied in this process.

Readiness for Distance Education

The code concept map about responses of stakeholders to questions about the readiness for distance education in Türkiye during the COVID-19 pandemic is given in Figure 4.

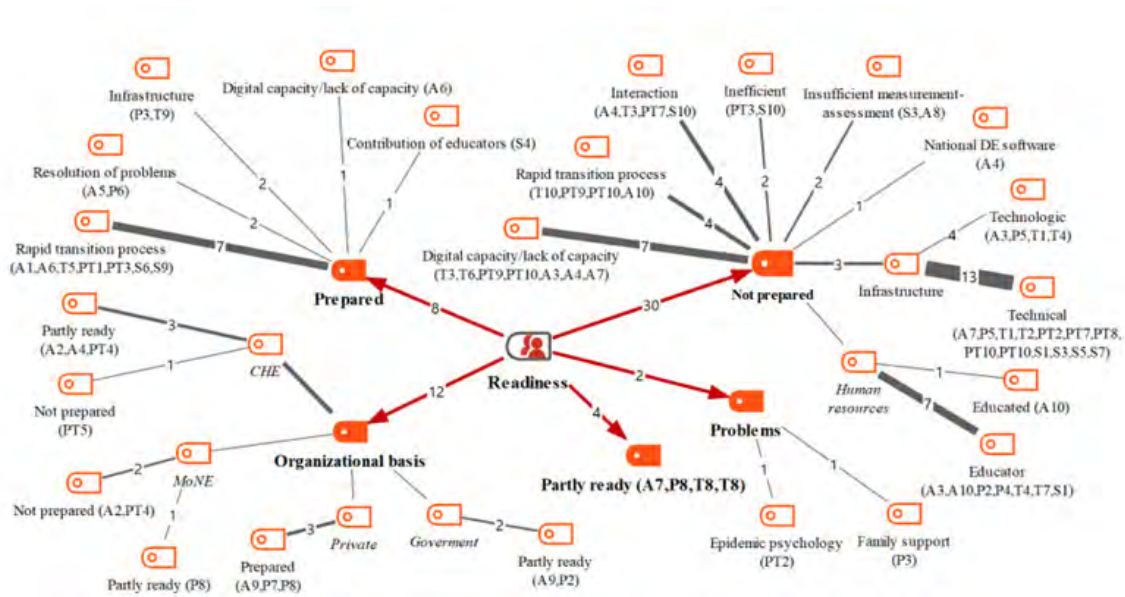


Figure 4. Readiness for Distance Education According to Stakeholders during the COVID-19 Pandemic in Türkiye.

Stakeholders gave the responses to the question, “Do you think educational organizations in Türkiye were prepared for distance education? Please explain.” in the readiness category comprised categories of no (f:8), not prepared (f:30), partly ready (f:4), on an organizational basis (f:12) and problems (f:2). Each category contained a variety of codes. With the prepared category, codes were determined as rapid transition process (f:7), infrastructure problems (f:2), resolution of problems (f:2), digital capacity/lack of capacity (f:1), and contribution of educators (f:1). Sample statements by stakeholders in the prepared category for distance education in educational organizations are “My thoughts are supported by the universities beginning interactive distance education systems in lessons in a short time.” (A1) about the rapid transition process; “Yes, I think they were ready; however, I think we struggled most with the system not being suitable for distance education.” (P3) about deficient infrastructure; and “It will be better in time. The preparations within a short time are promising.” (P6) for the resolution of problems code.

The codes in the not prepared category of the readiness theme which included infrastructure (f:20), human resources (f:8), digital capacity/lack of capacity (f:1), rapid transition process (f:4), interaction (f:4), inefficient lessons (f:2), insufficient measurement-assessment (f:2) and national distance education (DE) software (f:1). Additionally, within the infrastructure code, there were subcodes of technologic (f:4) and technical (f:13), while the human resources code comprised two subcodes of educator (f:7) and educated (f:1). Example statements include “Distance education began because of COVID-19 on education. This transition had to be rapid, so I think we were caught unprepared for distance education.” (PT10) for the rapid transition code in the not prepared category; “The lack of interaction means that poor students couldn’t ask questions.” (A4) about the interaction code; “Additionally, there is still no clarity about the assessment of students with distance education.” (S3) for the insufficient measurement-assessment code; “We weren’t ready due to lack of necessary infrastructure (lack of computer, telephone, internet, etc. due to reasons like poor material status of families).” (T1) about the technologic subcode; and “Türkiye’s education organizations don’t have the infrastructure, the available website couldn’t respond to the need; in fact, we saw even the internet network supporting this wasn’t adequate.” (P5) for the technical subcode in the infrastructure code.

Benefits of Distance Education

The code concept map about responses of stakeholders to questions about the benefits of distance education during the COVID-19 pandemic is given in Figure 5.

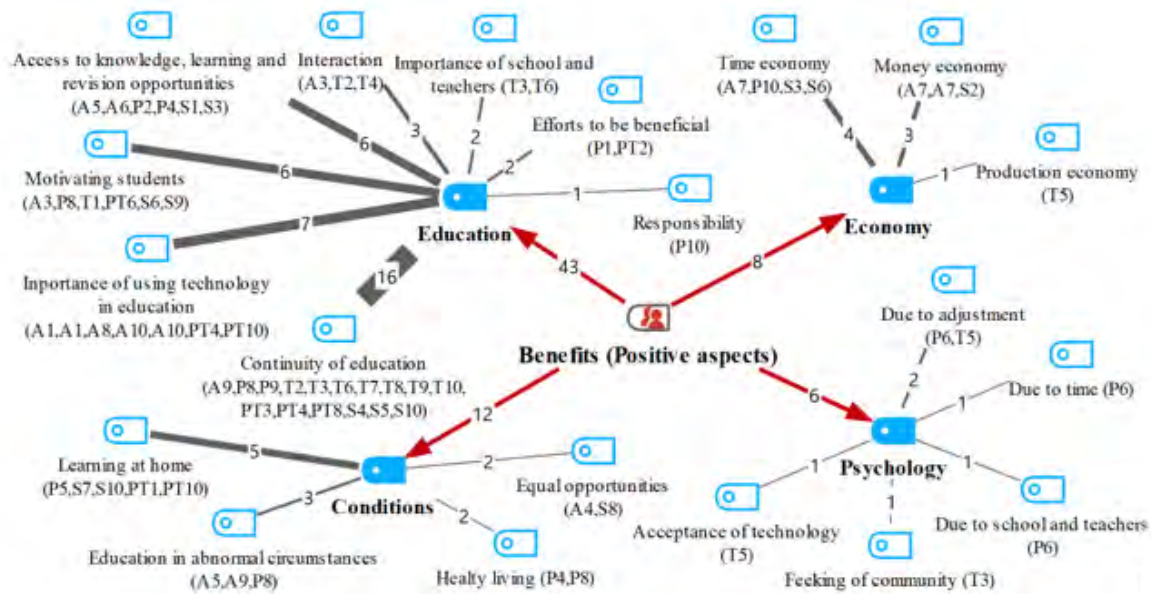


Figure 5. Positive Aspects of the Benefits of Distance Learning Theme According to Stakeholders during the COVID-19 Pandemic in Turkiye.

To the stakeholders, “Explain what are the negative aspects of the applied distance education according to you?” the question was asked. According to stakeholder statements, the positive aspects category was shaped around four main codes of positive aspects in terms of psychology, economy, education, and conditions. The psychological terms code included the subcodes of acceptance of technology (f:1), feeling of community (f:1), due to adjustment (f:2), due to school and teachers (f:1), and due to time (f:1). Example statements for the acceptance of technology and due to adjustment subcodes are “While we don’t include technology in our lives much, we understood the need to catch up by adjusting to technology and including it in our lives when we need to.” (T5); and in relation to the feeling of community code “I think live lessons on the internet will be more effective as students can see each other and see they are in the same situation which will be good psychologically.” (T3).

In terms of conditions, the subcodes were learning at home (f:5), healthy living (f:2), equal opportunities (f:2), and education in abnormal circumstances (f:3). Example statements for the learning at home code include “I think children will have higher perception in an environment where they will feel comfortable, at ease and confident.” (P5); and in relation to the healthy living subcode “Knowing they can access education at most hours of the day, children will sleep more regularly, additionally, they have the opportunity to eat healthily at home which they don’t have at school.” (P4).

The economy code included the subcodes of time economy (f:4), money economy (f:3), and production economy (f:1). Sample statements include “Time is very valuable for humanity. More gains were provided in terms of using time.” (P10) for the time economy subcode and “The only positive aspect is in terms of material. We don’t spend anything. We are at home with family.” (S2) for the money economy subcode.

The education category comprised the codes continuity of education (f:18), the importance of using technology in education (f:7), access to knowledge, learning and revision opportunities (f:6), motivating students (f:6), interaction (f:3), efforts to be beneficial (f:2), importance of school and teachers (f:2) and responsibility (f:1). The digital competence (f:5) subcode was within the importance of technology in education code. Sample statements include “In extraordinary circumstance when we can’t go to school it ensures the education system is not delayed and continues. It contributes to not breaking communication between educators and students, prevents students from being distant from lessons and forgetting information. It plays a big role in reducing the losses that will be experienced this year.” (P9) in relation to the continuity of education subcode; “More important, lessons are recorded and can be watched again. I think that’s the greatest advantage of distance education.” (S3) for the access to knowledge, learning and revision opportunities subcode; and “We

don't get confused as we listen to lessons individually. If we were in class, I think we would be distracted more quickly.” (S6) for the motivating students” subcode. The code concept map related to the benefits of distance education during the COVID-19 pandemic based on responses of stakeholders is given in Figure 6.

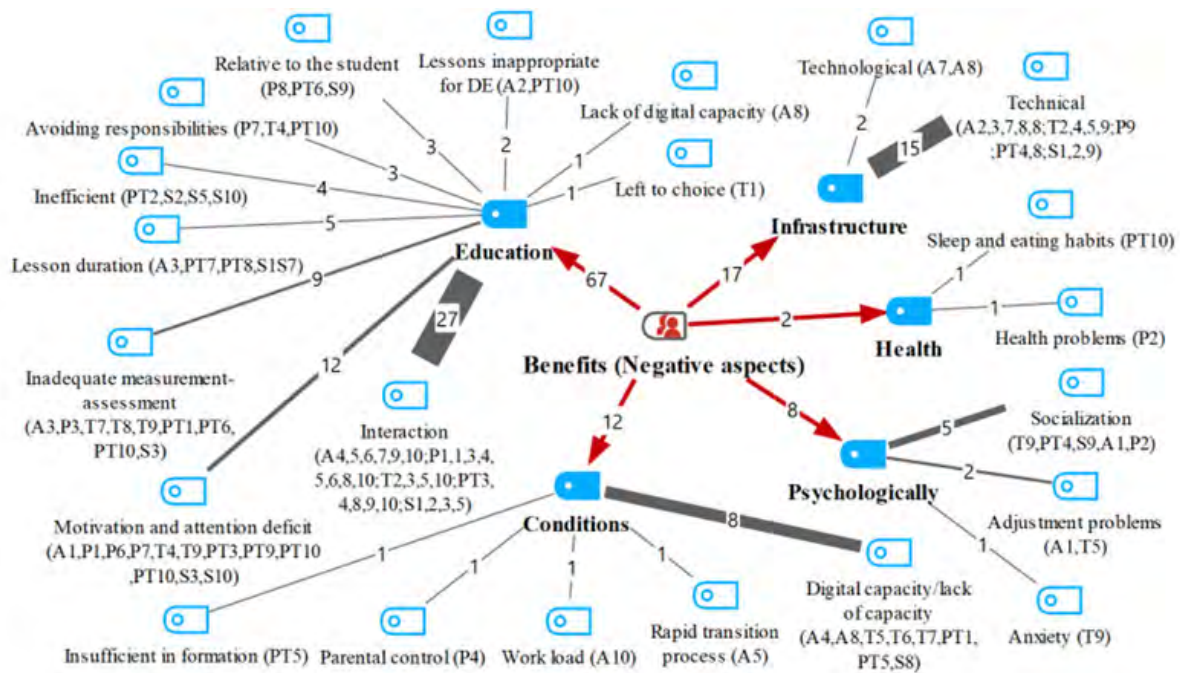


Figure 6. Negative Aspects of the Benefits of Distance Learning Theme According to Stakeholders during the COVID-19 Pandemic in Türkiye.

Stakeholders’ responses to the question “According to you, what are the negative aspects of the implemented distance education? Please explain.” in the negative aspects category comprised the codes relating to in terms of education (f:67), infrastructure (f:17), conditions (f:12), psychologically (f:8), and health (f:2). In terms of education, the code comprised the subcodes of interaction (f:27), motivation and attention deficit (f:12), inadequate measurement-assessment (f:9), lesson duration (f:5), inefficient (f:4), relative to the student (f:3), avoiding responsibilities (f:3), lessons inappropriate for DE (f:2), lack of digital capacity (f:1), and left to choice (f:1). Sample statements are “Distance education with the TV may be boring because there is no interaction.” (T1) about interaction; “Definitely there are problems with discipline and students focus on the lessons.” (P7) about motivation and attention deficit code; “Lesson hours are short, system problems, the lack of interactive assessment possibilities and the lack of sufficient tools in terms of measurement and assessment.” (A3) for the insufficient measurement-assessment and lesson duration subcodes; “It’s not efficient. The teacher goes over the slides, and it is a pity that we do the same thing when we talk about how correct this is or is not in lessons.” (A2) about the inefficient subcode; and “It may be hard to stay in front of a screen for a long time, especially for students in the young age group.” (P8) for the relative to the student subcode.

The infrastructure code comprised the subcodes of technical (f:15) and technological (f:2). An example statement for the technical and technological subcodes is “Additionally another notable significant problem is the inadequacy of technical and technological equipment.” (A7). The conditions code comprises the subcodes of digital capacity/lack of capacity (f:8), parental control (f:1), workload (f:1), rapid transition process (f:1) and insufficient information (f:1). Example statements include, “To be honest, it’s ridiculous for children living in villages without the internet and television in the east and children growing up on the internet in the west to receive education in the same way.” (S8) about the digital capacity/lack of capacity subcode; and “Additionally, children with mothers and fathers who work means it is difficult to check this education is done at home, while it can’t fully be followed.” (P4).

In terms of psychology, the code comprises the subcodes of socialization (f:5), adjustment problems (f:2), and anxiety (f:1). Statements related to the socialization subcode are “The inability to spend time with their peers negatively affects socialization.” (T9); related to the adjustment subcode are “Some students and parents find the internet or program setup strange.” (T5), while about the anxiety subcode “Students worry about the topic of measurement-assessment.” (T9). The subcodes are sleep and eating habits (f:1) and health problems (f:1) the health code. Example statements are “Education in front of a screen negatively affects sleep and eating patterns.” (PT10) about the sleep and eating habits; and “Long durations spent in front of a screen can cause additional health problems (negative effects on vision and muscle system).” (P2) for the health problem subcode.

Adequacy of Distance Education

The code concept map in relation to responses of stakeholders about the adequacy of distance education during the COVID-19 pandemic is given in Figure 7.

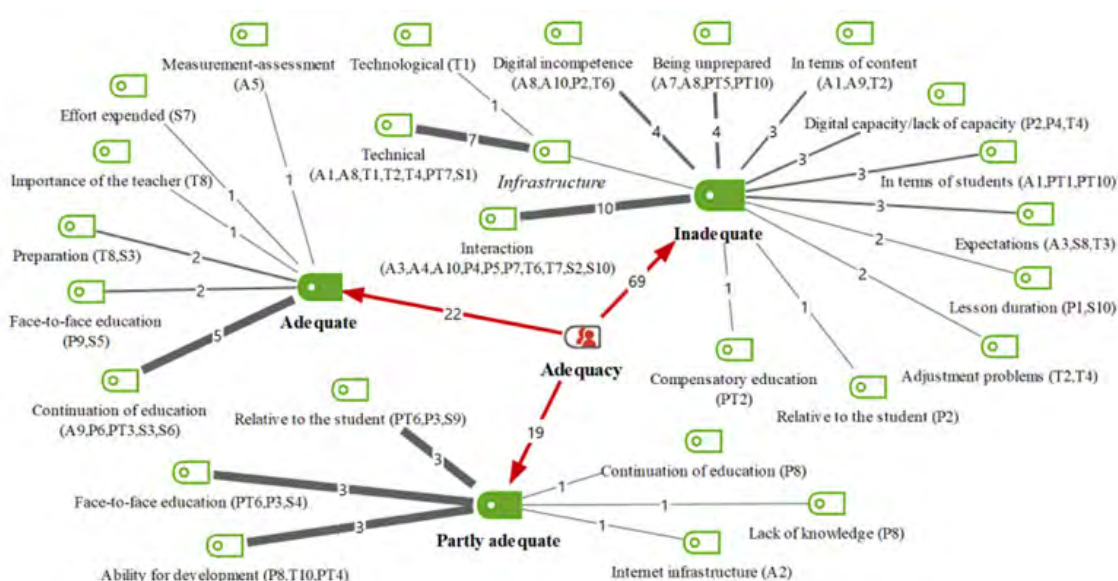


Figure 7. Adequacy of Distance Learning According to Stakeholders during the COVID-19 Pandemic in Türkiye.

Responses to the question “Do you find the distance education implemented during the COVID-19 pandemic adequate (satisfactory)? Please explain.” comprised the categories of adequate (f:69), inadequate (f:22), and partly adequate (f:19). The inadequate category comprised the codes interaction (f:10), infrastructure (f:8), digital incompetence (f:4), being unprepared (f:4), expectations (f:3), digital capacity/lack of capacity (f:3), in terms of students (f:3), in terms of content (f:3), lesson duration (f:2), adjustment problems (f:2), compensatory education (f:1) and relative to the student (f:1). Statements include, “There’s no answer to the question. Additionally, I don’t think all families have sufficient equipment for this education system. Children should be able to perform the operation with the teacher, rather than listen, especially in numerical lessons.” (P4) about interaction and digital capacity/lack of capacity codes; “The most important reason distance education is inadequate is the sudden transition due to not predicting this process; the infrastructure problems really lowered satisfaction.” (A8) for infrastructure, digital incompetence, and being unprepared codes; and “I think we don’t have sufficient economic and social competence for distance education in the country.” (T3) about the expectations code.

The adequate category comprised the codes continuation of education (f:5), face-to-face education (f:2), preparation (f:2), importance of the teacher (f:1), effort expended (f:1) and measurement-assessment (f:1). Examples of statements for the continuation of education are, “I think many organizations adapted easily

and tried to make the process more effective/increase quality. In this period when face-to-face education can't happen, the first stage of the distance education process was sufficient to motivate students and educators in the beginning and for easy adaptation.” (A9); about the face-to-face education code “For me, lessons are actually satisfactory. I don't find it difficult to understand the topics and teacher, but it is, unfortunately, challenging to reach the efficiency of face-to-face education.” (S5); and about the preparation code, “Because the transition was so quick in a short time and considering this duration, an excellent system was created.” (S3).

In the partly adequate category, the codes were relative to the student (f:3), ability for development (f:3), face-to-face education (f:3), continuation of education (f:1), lack of knowledge (f:1) and internet infrastructure (f:1). Statements include, “Studies are not flawed but are as they should be. However, I don't think giving education from a distance is suitable in terms of information teaching. Communication should be founded based on active eye contact between teacher-student. The distance education duration implemented in the country is 20 min which is a marker that attention was paid to the students' traits. At the same time, I assess it as being suitable for teacher traits, with exercises and activity content being good and efficient.” (PT6) for the relative to the student, lack of knowledge, and face-to-face education codes.

Continuation of Distance Education

The code concept map based on responses of stakeholders about the continuation of distance education in Turkiye after the COVID-19 pandemic are given in Figure 8.

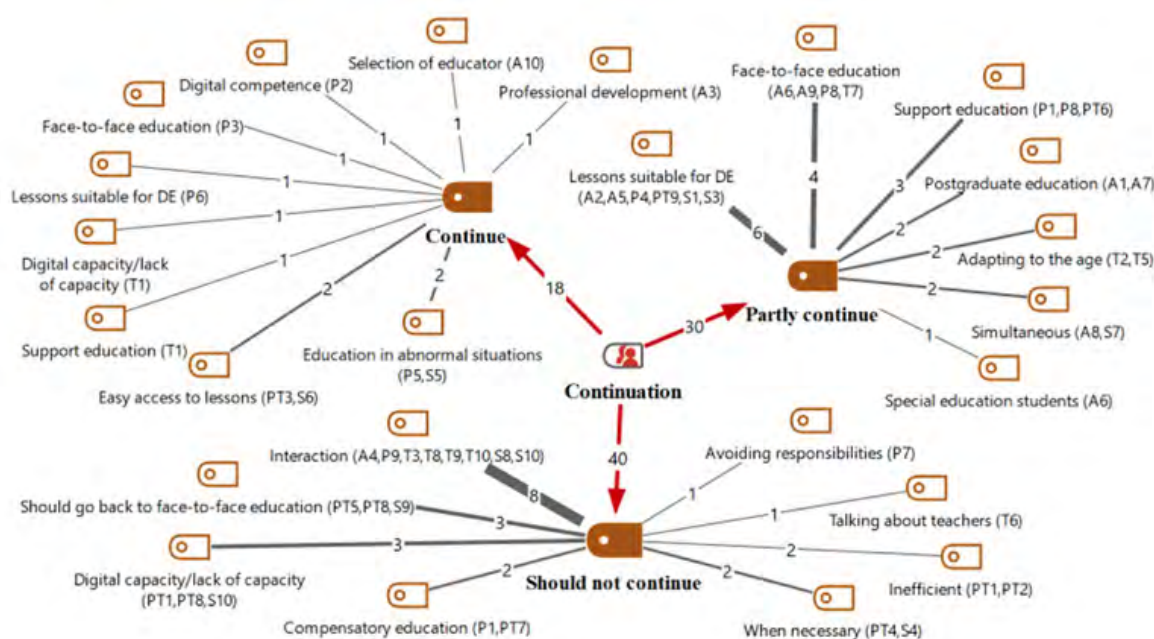


Figure 8. Continuation of Distance Learning After the COVID-19 Pandemic in Turkiye According to Stakeholders.

The responses of stakeholders to the question “Do you want distance education to partly or fully continue after the COVID-19 intervention process has ended? Please explain” comprised the categories should not continue (f:40), partly continue (f:30) and continue (f:18). They should not continue category includes the code’s interaction (f:8), digital capacity/lack of capacity (f:3), should go back to face-to-face education (f:3), when necessary (f:2), compensatory education (f:2), inefficient (f:2), talking about teachers (f:1) and avoiding responsibilities (f:1). Example statements for the interaction and digital capacity/lack of capacity codes are “It should not continue because people don't listen to lessons, we can't ask the teacher questions we don't understand, and not everyone has electronic devices.” (S10); and about the should go back to face-to-face education are “I would choose for schools to open. I missed my friends and my teacher a lot. I can access the information I want at any time, but it was awful not to be able to see my friends.” (S9).

In the partly continue category, the codes were lessons suitable for DE (f:6), face-to-face education (f:4), support education (f:3), adapting to the age (f:2), simultaneous (f:2), postgraduate education (f:2) and special education students (f:1). Examples of statements about lessons suitable for DE are “I think it will be more efficient to have partial implementation considering the lesson content and quality of education about distance education after the viral pandemic ends.” (A2); for the face-to-face education and special education students’ codes “I want it to partly continue, it may continue especially for special education students. But I think face-to-face education will be better.” (A6); and about the support education code “It shouldn’t be full. But it may be partly implemented with supporting qualities for students. In this way, it will prevent class teachers undertaking a large load.” (PT6).

In the continue category, the codes were easy access to lessons (f:2), education in abnormal situations (f:2), digital capacity/lack of capacity (f:1), lessons suitable for DE (f:1), support education (f:1), face-to-face education (f:1), digital competence (f:1), selection of educator (f:1) and professional development (f:1). Example statements are “I want it to continue a lot. As I said, I am finding it more efficient distance education. I think everyone being able to receive education in their own home with their families will be more efficient.” (S6) for the easy access to lessons code; “Yes, it should be done. Nobody knows if the events occurring today will repeat, and as a result, this system should continue to be improved further.” (P5) about education in abnormal situations code; and “Yes, maybe depending on the students’ situations. It may be a good tool for those with the opportunity. I think it’s a good resource for revision and exercises. I think it’s good compared to other resources.” (T1) about digital capacity/lack of capacity and support education codes.

DISCUSSIONS AND CONCLUSION

The aim of this research was to investigate and reveal the opinions regarding distance education of students, parents, teachers, pre-service teachers, and academics employed in education faculties mostly affected by the transition to distance education in educational organizations in Türkiye during the COVID-19 pandemic and to make recommendations based on the findings. Findings acquired in the study have been discussed comprehensively. The responses of stakeholders in the research were analyzed in the framework of four main themes namely the readiness for distance education, benefits of distance education, adequacy of distance education, and continuation of distance education. A few stakeholders who participated in this research remarked that Türkiye was unprepared for distance education. Stakeholders noted that private organizations were prepared for distance education on an organizational basis, while state organizations, MoNE and The Turkish Higher Education Council (HEC) were only partly ready.

The positive aspects of distance education in psychology, economy, conditions, and most education were emphasized. In terms of psychology, positive aspects such as acceptance of technology, adjustment, sense of community due to time and schools and teachers were at the forefront. Just as stakeholders used technology, some had to accept technology or adapt to it due to the distance education activities implemented during the pandemic. Students felt the need to experience a sense of community in online environments because they did not have the opportunity to socialize as they were not in school. Whiteman (2002) stated that many educators attempted to develop a sense of community encompassing security, commonality, and interaction between students in distance education. The formation of a sense of community among students can help students continue with distance education (Rovai, 2002) and feel satisfied and motivated (McCracken, 2005). To examine the positive aspects of distance education, various conditions were assessed within the framework of learning at home, healthy living, equal opportunities, and education in unusual situations.

Positive aspects in terms of distance education conditions were stated to be viewing the desired lesson at the desired time without any limitation and being in a comfortable, peaceful, and secure environment. Reimers and Schleicher (2020) reported that it is of critical importance to ensure continuity of academic learning for students in distance education during the pandemic. Continuation of education during the pandemic was stated to be a factor that increased students’ success and motivation. Wei and Chou (2020) remarked that perceptions about distance education positively affected readiness for distance education. It is worth mentioning that the more positive a student’s perceptions are, the more prepared they are for distance education. Pre-service teachers affirmed that the connection between education and technology would continue to increase in future years and distance and virtual learning environments will be used more often (Yaylak, 2019).

The use of television in distance education can provide equality of opportunity in education. The Minister of National Education of Türkiye, Ziya Selcuk, stated that weight was given to distance education on television channels due to the higher access to television in Türkiye than access to the internet (Selcuk, 2020b). However, higher-level distance education teaching was conducted through the internet. Stakeholders stated that not everyone has access to information technologies or the internet, which leads to unequal opportunities. Aktas Salman (2020a) asserted that students' success was affected by the educational level of parents and socioeconomic power and said: In Türkiye, where there is a large gap in household budgets allocated to education, there is an inequality which was felt more during the distance education process; the digital gap. In other words, the inequality felt by individuals in different socioeconomic conditions in terms of access to information communication technologies (ICT) and their use.

This situation may be termed as the lack of digital capacity. Though the Ministry made agreements with GSM operators to ensure every student had the opportunity for a certain amount of internet access, it appears problems were experienced both regarding devices and access to the internet. An 88.3% increase in household internet access in Türkiye in 2019 (Turkish Statistical Institute [TUIK], 2019) does not mean that all students have equal opportunities. Young people living in low-income households are said to have a high probability of not having a computer at home. Such conditions prevent a markedly large number of children from participating in distance education. Numerous studies have concluded that emergency distance education increases opportunity inequality among students (Bergamini, 2020; Blundel et al., 2020; Govindarajan, & Srivastava, 2020; Iwuoha, & Jude-Iwuoha, 2020; Qunaibi, 2020; Williamson et al., 2020).

Most stakeholders who participated in the research were optimistic about the continuation of education in this form during the pandemic. Teachers have indispensable roles in the continuation of this process. Teachers are considered to have expended more effort in the distance education process than informal education while hoping their value will finally be understood by society. While maintaining efforts at distance education during this process and with significant responsibilities at the point of compensating for learning losses after the pandemic, teachers and education workers ought to be supported with continued work security in this crisis period to prevent income losses and meet professional needs (International Task Force on Teachers for Education 2030, 2020). However, access to information, learning, and revision opportunities increased with technology in the distance education process. This situation is a marker of how crucial the use of technology in education is. Though the use of technology is regarded as the most important in the distance education process, stakeholders underlined the need for distance education interaction. Interaction due to the structure of distance education lessons (Dunn et al., 2014; Greene, & Azevedo, 2007), motivation, and support were essential determinants for successful lesson processes (Lim, 2004; Liu et al., 2012). Positive aspects with regard to the economy were that technology is essential for distance education, production of technology needs to increase in our country, and it should not stretch the budget in terms of materials (access, food, stationery, etc.), and a more effective use of time (access, lesson preparation, etc.).

Likewise, the positive opinions about the distance education mode implemented in Türkiye during the COVID-19 pandemic, there were negative opinions. These were observed to be diversified with regard to psychology, health, conditions, education, and infrastructure. Negative situations such as students not spending time with their peer group or classmates (socialization), uncertainty about measurement and assessment (anxiety), and inability to adjust to the use of technology by students and parents (adjustment) were revealed. The interaction came to the forefront among negative aspects of distance education. Stakeholders remarked the weakness of mutual interaction in distance education and the importance of face-to-face education from this aspect. This situation was concluded to cause a lack of motivation and attention among students, according to stakeholders. Phirangee and Malec (2017) revealed that students experienced isolation and lack of community due to disrupted communication with peers and teachers, which negatively affected their learning experiences. Experts experiencing the Chinese situation (Distance education practiced in China) indicated that forming live connections is more efficient, even occasionally, of students with their teachers and classmates (Arik, 2020). Data revealed that only 3% of students communicated with their teachers and implied the importance of the school and teachers' role in supporting students socially and emotionally in times of crisis and need (Turkish Educational Volunteers Foundation [TEGV], 2020). This situation can be inferred to be valid for teachers and academics. A recent study (Aguilera-Hermida, 2020) indicated that university students still prefer face-to-face learning due to their unpleasant experiences of a sudden transition to online learning, such as lack of supporting resources from institutions, teachers, or peers.

The duration spent in front of a screen was stated to cause adverse effects such as disrupting students' sleeping and eating patterns, degeneration of vision and muscle system, and other general health problems. In this situation, parents must control screen use by students. According to research results by the TEGV, appetite changes and sleep disorders were observed mostly with continuously watching television, playing computer games, and using a telephone (TEGV, 2020). Nonetheless, students with working parents may be out of control or not receive the requisite support from teachers. As support cannot be provided simultaneously in distance education lessons, it requires relative responsibility and self-control (Artino, & Stephens, 2009; Dabbagh, & Kitsantas, 2004; Hartley, & Bendixen, 2001). This situation may impact the students positively or negatively based on their class level and ability to undertake responsibility. Research has stated a positive correlation between self-control and academic success in distance education environments (King et al., 2000; Whipp, & Chiarelli, 2004). About this situation, Camera (2020) stated that low-income households generally have parents who cannot stay at home to help children, implying that even with technological access to distance education, it may be less effective for such students. Some children must work during the age of getting educated. Children who leave school early in places with intense seasonal work may be further removed from schooling during the pandemic with distance education implemented. It may not be easy to monitor children who are removed from education and regain them for society. For example, some children did not return to school after the Ebola epidemic in Africa, while others remained behind in learning and development. Additionally, there was an increase in sexual abuse and violence rates toward children after schools in West Africa closed (Jenkins, 2020). To avoid these types of outcomes, every child should access school return action plans prepared by authorities.

Another topic that formed a common point was measurement-assessment. Stakeholders had concerns related to the issue of measurement and assessment during the distance education process. During a pandemic, educational organizations should prepare measurement and assessment methods that can be completed over e-mail or web-based environments (Saravara, 2007). It can be stated that educational organizations in Türkiye were deficient in the topic of measurement-assessment in education-teaching activities implemented during the pandemic. After parents and teachers gained awareness about the program's critical aspects, teachers needed to ensure student-centered learning. The International Society for Technology in Education (ISTE) deems it imperative to create the conditions required to support learning in this type of technological learning (ISTE, 2019). In this educational approach, roles change from passive information to active participation in a process that emphasizes discovery (Morgan, 2020). For instance, instead of teachers using technology to present information to students, they should ensure students' opportunity to work with peers for various projects, use digital tools to collect information and create presentations to share ideas (Chen, 2010). Instead of exams taken alone in video lessons or home education environments, methods such as group projects and live forums preserving communication between students with teachers and peers are experienced more productively in terms of pedagogy (Ergenc, 2020). The Chair of HEC, Sarac, (2020) stated: "Examinations in our universities will be implemented with alternative methods like 'digital opportunities' or 'homework, projects' with the condition of being transparent and auditable." After this announcement, universities attempted to perform measurement-assessment in the form of online exams or homework. Educational facilities linked to MoNE did not hold exams but plan to transfer students to the class above based on first semester grades. Regarding this issue, the need to establish impartial and fair assessment-evaluation systems against the risk of future interruption of education has emerged (Adedoyin, & Soykan, 2020; Feldman, nd).

The study participants had different opinions about the short duration of distance education and the inefficiency of lessons. Additionally, studies were considered standardized rather than based on the principle of being relative to the student. Students with a natural development benefited from this system. Further, some participants stated that some lessons may be suitable for distance education, while some were not, and the requisite efficiency was not obtained through these lessons. Lesson duration may cause positive or negative outcomes for students at different class levels. There may be students who cannot learn, who do not want to learn, or are bored. Just as there are students not displaying a natural development, refugee students come from different cultures who are not well-versed in Turkish. Stakeholders deemed it essential to provide distance education to students with special education needs. The effect of COVID-19 is probably worse for people in low socioeconomic groups, and the risk of disabled children remaining behind is greater (Nhlapo, 2020). Due to the lack of parsed data and information, it is uncertain how many disabled students received

inadequate educational support due to the COVID-19 pandemic (UNESCO Bangkok, 2020). Just as provincial and county national education directorates attempted to identify students without the necessary digital opportunities for distance education, the determination of students requiring special education is essential in inclusiveness and equal education opportunities. Several studies have been conducted with disadvantaged students. For example, the Promoting Integration of Syrian Kids into the Turkish Education System (PIKTES) announced that they would begin distance education from March 30, 2020, in adaptation classes that took a mandatory break. The “Adjustment for Turkish” lessons can be followed on the Turkiye Radio and Television Corporation - Education Information Network (TRT-EBA) and PIKTES YouTube channel (piktes.gov.tr). While trying to solve the problem of integration education of refugee students, providing these students with urgent distance education can rather increase the problems.

Students who lack interest or self-control and have working parents may not benefit sufficiently from distance education. The digital gap is not just in terms of access to information communication technologies (ICT). It is, however, present for students who cannot benefit sufficiently from the distance education process even with ICT access. Students’ digital literacy skills and parental support affect the distance education process (Aktas Salman, 2020b). Research assessing distance education in the first week stated that teachers had a key role in distance education as informal education. Teachers’ digital literacy levels were essential, and distance education inclusiveness was not just based on internet access (Ergen, 2020). Teachers may have difficulties accessing students whose families have to work, refugees whose primary language is not Turkish, and students who require special education. This negatively affects the inclusiveness of distance education.

There were opinions related to the adequacy of the distance education implemented in educational organizations during the COVID-19 pandemic as adequate, partly adequate, and inadequate. According to these opinions, most stakeholders consider distance education to be insufficient. Most who found it satisfactory thought it was essential to continue education, be prepared quickly, that teachers were necessary, and would choose formal education. Stakeholders who found it partly adequate again thought it was needed in terms of continuing of education. Contrary to those emphasizing negative aspects, they stated that lesson durations were according to the students, they preferred formal education, and develop distance education. Participants who saw distance education as inadequate emphasized that interaction was insufficient. For distance learning to be effective, the information, tools, and platforms were the precondition of the “interaction” element can occur were understood to be still very new and unknown in society (TEGV, 2020). Another critical topic appeared to be infrastructure, with technological and technical infrastructure found to be inadequate. Stakeholders found distance education inefficient and stated that the content was not student-centered and educational organizations were unprepared for distance education. The lack of digital capacity was accentuated here. The inadequacy of distance education was thought to be triggered by inequality of opportunity due to every student and every family not having the requisite technology and infrastructure.

The roles of educators changed with distance education implemented by educational organizations in the pandemic. Some of those participating in this research did not think educators had sufficient skills for distance education. This situation may have occurred due to the rapid and unprepared transition to distance education. Teachers require support; many teachers providing distance education during the pandemic were giving fully online lessons for the first time. For example, according to the US National Center for Education Statistics data, only 21.1% of state schools had at least one fully online lesson in 2015–2016 (Riser-Kositsky, 2019). It is known that there are remarkable differences between teachers in terms of access to digital devices and the ability to use these devices in Turkiye and many other countries. It can be remarked that this difference is rather lower in Turkiye. Students receiving distance education during the COVID-19 pandemic can use technology much better. Prensky (2001) defined this generation as “digital natives.” One of these students’ parents stated that as children know this system, the person providing the education needs training. In contrast, the other parent noted that distance education appeared to be a preliminary study and the same topics need to be repeated in informal education. Aktas Salman (2020b) displayed parallel opinions to these stakeholder opinions by stating, “while teachers with higher digital literacy adapted to the process more easily, teachers lacking about this topic had difficulty.”

The proportion of stakeholders who wanted distance education to continue when the pandemic precautions ended, and normal life returned were lower compared to those stating that it should partly continue or

totally discontinued. When the opinions of stakeholders who wanted distance education to continue were investigated, no definite reason came to light. They asserted that students could easily access lessons, while other stakeholders indicated that it could support students' education. Some stakeholders noted that distance education should continue to be used and developed in abnormal situations such as COVID-19 and natural disasters. Stakeholders who believed that distance education should partly continue reported opinions that lessons suitable for distance education should continue, while unsuitable lessons should be given with formal education. They stated that while formal education should continue, simultaneous distance education can also be provided, and distance education can be used for postgraduate education. Gelisli (2015) stated that separate applications for theoretical and applied lessons can increase success despite some problems with distance education. Opinions that distance education should not continue due to the lack of interaction were reported, emphasizing the need to return to formal education. Additionally, they stated that digital impossibilities may plausibly increase the inequality of opportunities in education. They noted that distance education lessons were inefficient and if they are to be given, it is necessary to use distance education for complementary aims.

Suggestions for the Continuation of Learning During and After COVID-19

In summary, the findings of this research ensured ideas were obtained about the distance education process implemented by MoNE and HEC based on the opinions of students, teachers, pre-service teachers, parents, and academics during the COVID-19 pandemic. This may form the basis or inspiration for action plans to be prepared for the transition to formal education by organizations responsible for education and teaching. For clearer and more profound conclusions and educational implications, however, future research is needed. Based on the findings of this study, recommendations for future research are as follows.

Priority and support can be given to research, projects, and studies that will improve teachers' digital literacy levels. Many generation X teachers feel inadequate in their use of ICT. While generation Z students use technology well, opportunities should be created for teachers to improve themselves, especially in teacher education programs, information-technology literacy, etc. It can be suggested that the contents be concentrated.

As all courses are in online training, computer servers may not accommodate such large-scale new users. Online training platforms can often shut down due to overload. To solve any unexpected problems on time, the educators need to prepare different plans before the lessons begin and inform students about these plans. Local administrations, central government, and non-governmental organizations have numerous responsibilities in meeting the students' technological needs and teachers who have problems accessing distance education. For emergency distance education, it is necessary to prepare a broadband internet infrastructure that allows synchronous and asynchronous education, video conferencing, uploading, and downloading digital materials (video, presentation, homework documents, etc.) without any problems.

During the emergency distance education process, teachers and students mostly had problems conducting the assessment and evaluation. Since multiple-choice exams are usually held in formal education, they lost their reliability in the new normal process. Many educational institutions had to take different measures for exams. It can be suggested as a better solution for teachers to use formative assessment by using learning management systems to evaluate their students. Even so, studies should be conducted regarding fairer and more objective evaluation systems. Teachers can use learning management systems with a more robust infrastructure to make formative assessments in the emergency distance education process.

E-content, i.e., digital-based instructional content that supports the course, can be produced to make students active in distance education. During the distance education process, children were constantly exposed to digital screens. Lessons generally continued teacher centered. According to the results of the study, the importance of mutual interaction in distance education has emerged. Based on this result, the course contents should be planned in which the lessons are more interactive, student-centered, and especially with the voice, and gestures felt more clearly. Active use of learning management systems will enable students improve their self-learning skills. Teaching contents can be segregated into smaller units to help students focus and learn self-directed. Moreover, students should not be exposed to classes for 6–8 hours during the day. Teachers and parents should direct children to extracurricular activities that will keep children active.

During the pandemic, the responsible institutions should devise action plans for returning to school for many children absent from school for different reasons (technological need, need to work, etc.). It is valuable to strive to prevent children from losing their educational opportunities. Complementary and supportive education programs may be created for child laborers and seasonal child workers. The number of refugees that do not have Turkish as the primary language cannot be underestimated in Türkiye, so distance education platforms and programs should include these children. Planning of the make-up education, its scope, and making it clear to the public that it will ensure the completion of the students' learning deficiencies in the transition to the next class is essential in many aspects. Students who need special education may be the ones who experience the maximum loss of education in the emergency distance education process. Therefore, a different education platform and program can be created for students who need special education and for their parents.

With COVID-19, education was restructured all over the world, and emergency distance education was introduced. A lot of research has been done, and experience has been gained during this process. Undoubtedly, with technology development, distance education applications will increasingly continue after the end of this pandemic. In this case, education policymakers and governments should do the necessary and relevant work and adopt various measures required to improve the restructured education.

Limitations

There are certain limitations to this study. This study was conducted with a total of 50 stakeholders who lived in several cities in Türkiye. For this reason, there are limitations regarding the generalizability of the findings of this research at national and international levels. Accordingly, it can be suggested that similar studies should be conducted on a larger scale nationally or internationally. As this study was conducted within the qualitative research method, further studies can be conducted with quantitative or mixed research methods to examine the effects of distance education on stakeholders during the COVID-19 pandemic in further depth. Besides, research can be conducted with stakeholders living in many different cities and regions.

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REFERENCES

- Adedoyin, O. B., & Soykan, E. (2020). Covid-19 pandemic and online learning: the challenges and opportunities. *Interactive Learning Environments*. DOI:10.1080/10494820.2020.1813180.
- Aguilera-Hermida, A. P. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*. DOI:10.1016/j.ijedro.2020.100011.
- Ahern, T. C., & Repman, J. (2014) The effects of technology on online education. *Journal of Research on Computing in Education*, 26(4), 537-546. DOI:10.1080/08886504.1994.10782109

- Aktas Salman, U. (2020a, April 25). *Ogrenciler anlatti: 3 kardes bir telefonla uzaktan egitim aliyor*. Retrieved May 27, 2020, from <https://artigercek.com/index.php/haberler/ogrenciler-anlatti-3-kardes-bir-telefonla-uzaktan-egitim-aliyor>
- Aktas Salman, U. (2020b, April 5). *Turkiyede koronavirusun egitime etkileri – III | Uzaktan egitim ilk iki haftasi nasil gecti?* Retrieved May 27, 2020, from <https://www.egitimreformugirisimi.org/turkiyede-koronavirusun-egitime-etkileri-iii-uzaktan-egitimin-ilk-iki-haftasi-nasil-gecti/>
- Al-Balas, M., Al-Balas, H. I., & Jaber, H. M. (2020). Distance learning in clinical medical education amid COVID19 pandemic in Jordan: current situation, challenges, and perspectives. *BMC Med Educ*, 20, 341. DOI:10.1186/s12909-020-02257-4.
- Ali, W. (2020). Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic. *Higher Education Studies*, 10(3), 16-25. ERIC Number: EJ1259642
- Allen, I. E., & Seaman, J. (2013). *Changing course: Ten years of tracking online education in the United States*. Babson Park, MA: Babson Survey Research Group and Quahog Research Group.
- Appolloni, A., Colasanti, N., Fantauzzi, C., Fiorani, G., & Frondizi, R. (2021). Distance learning as a resilience strategy during Covid-19: An analysis of the Italian context. *Sustainability*, 13, 1-12. DOI:10.3390/su13031388.
- Arik, B, M. (2020, March 16). *Turkiyede koronavirusun egitime etkileri – I*. Retrieved May 27, 2020, from <https://www.egitimreformugirisimi.org/turkiyede-koronavirusun-egitime-etkileri-i/>
- Artino, A. R., & Stephens, J. M. (2009). Academic motivation and self-regulation: A comparative analysis of undergraduate and graduate students learning online. *The Internet and Higher Education*, 12, 146-151. DOI:10.1016/j.iheduc.2009.02.001
- Balaman, F., & Hanbay Tiryaki, S . (2021). The opinions of teachers about compulsory distance education due to coronavirus (Covid-19). *Journal of Human and Social Sciences Researches*, 10(1), 52-84. Retrieved March 19, 2021, from <http://www.itobiad.com/tr/download/article-file/1203036>
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Hum Behav Emerg Technol*, 2(2):113-115. DOI:10.1002/hbe2.191
- Bergamini, E. (2020). *How COVID-19 is laying bare inequality*. Retrieved March 19, 2020, from <https://www.bruegel.org/2020/03/how-covid-19-is-laying-bare-inequality/>
- Blundell, R., Costa Dias, M., Joyce, R. & Xu, X. (2020). *Covid-19 and Inequalities*. *The Institute of Fiscal Planning, United Kingdom*. Retrieved March 19, 2020, from <https://www.ifs.org.uk/inequality/covid-19-and-inequalities/>
- Bozkurt, A., & Sharma, R., C. (2020). Emergency remote teaching in a time of global crisis due to Corona Virus pandemic. *Asian Journal of Distance Education*, 15(1), i-vi. Retrieved March 15, 2020, from <https://www.asianjde.org/ojs/index.php/AsianJDE/article/view/447>
- Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, G., Lambert, S., Al-Freih, M., Pete, J., Olcott, Jr., D., Rodes, V., Aranciaga, I., Bali, M., Alvarez, A. J., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., de Coëtlogon, P., Shahadu, S., Brown, M., Asino, T. I., Tumwesige, J., Ramírez Reyes, T., Barrios Ipenza, E., Ossiannilsson, E., Bond, M., Belhamel, K., Irvine, V., Sharma, R. C., Adam, T., Janssen, B., Sklyarova, T., Olcott, N., Ambrosino, A., Lazou, C., Mocquet, B., Mano, M., & 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. Retrieved March 15, 2021, from <https://asianjde.org/ojs/index.php/AsianJDE/article/view/462>
- Camera, L. (2020). *Coronavirus closes schools for half of all kids in the U.S., now what? U.S. News & World Report*. Retrieved May 20, 2020, from <https://www.usnews.com/news/education-news/articles/2020-03-16/whats-next-as-coronavirus-closes-schools-for-half-of-all-kids-in-the-us>
- Carlson, E. R. (2020). COVID-19 and educational engagement. *J Oral Maxillofac Surg*, 78(7):1049-1051. DOI:10.1016/j.joms.2020.04.033.

- Chen, R. J. (2010). Investigating models for preservice teachers' use of technology to support student-centered learning. *Computers & Education*, 55(1):32–42. DOI:10.1016/j.compedu.2009.11.015.
- Chick, R. C., Clifton, G. T., Peace, K. M., Propper, B. W., Hale, D. F., Alseidi, A. A., & Vreeland, T. J. (2020). Using technology to maintain the education of residents during the COVID-19 pandemic. *J Surg Educ*, 77(4), 729-732. DOI:10.1016/j.jsurg.2020.03.018.
- Christensen, L. B., Burke Johnson, R., & Turner, L. A. (2015). *Research methods, design, and analysis*. Pearson.
- Churiyah, M., Filianti, S., & Sakdiyyah, D. A. (2020). Indonesia education readiness conducting distance learning in Covid-19 pandemic situation. *International Journal of Multicultural and Multireligious Understanding*, 7(6), 491-507. DOI:10.18415/ijmmu.v7i6.1833.
- Cetinkaya Aydin, G. (2020). *COVID19 salgini surecinde ogretmenler*. Tedmem. Retrieved May 20, 2020, from <https://tedmem.org/covid19/covid-19-salgini-surecinde-ogretmenler>
- Ciavarella, C., Fumanelli, L., Merler, S., Cattuto, C., & Ajelli, M. (2016). School closure policies at municipality level for mitigating influenza spread: a model-based evaluation. *BMC Infectious Diseases*, 16, 576. DOI:10.1186/s12879-016-1918-z
- COVID-19 update media briefing. (2020, June 9). Retrieved March 15, 2020, from <https://www.youtube.com/watch?v=Dkrwdw2YdQA>
- Creswell, J. W. (2014). *Research design qualitative, quantitative and mixed methods approaches (4th ed.)*. Thousand Oaks, CA Sage.
- Curran, C. (2008). *Online learning and the university*. In *Economics of distance and online learning: Theory, practice, and research*, Edited by Bramble, W. J. & Panda, S. 26–51. New York: Routledge.
- Calik Gocumlu, B., & Guven, B. (2020 March 25). *Milli Egitim Bakani Selcuk: Uzaktan egitim 30 Nisan'a kadar devam edecek*. Retrieved May 15, 2020, from <https://www.aa.com.tr/tr/egitim/milli-egitim-bakani-selcuk-uzaktan-egitim-30-nisana-kadar-devam-edecek/1779414>
- Cetinkaya Aydin, G. (2020). *COVID-19 salgini surecinde ogretmenler*. Retrieved May 25, 2020, from <https://tedmem.org/covid-19/covid-19-salgini-surecinde-ogretmenler>
- Dabbagh, N., & Kitsantas, A. (2004). Supporting self-regulation in student-centered web-based learning environments. *International Journal on E-Learning*, 3, 40–47. Retrieved May 29, 2020, from <http://www.learntechlib.org/j/IJEL>
- DeRouin, R. E., Fritzsche, B. A., & Salas, E. (2005). E-learning in organizations. *Journal of Management*, 31(6), 920-940. DOI:10.1177/0149206305279815
- 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 international datasets*. Publications Office of the European Union, Luxembourg. DOI:10.2760/126686.
- Daroedono, E., Siagian, F. E., Alfarabi, M., Cing, J. M., Arodes, E. S., Sirait, R. H., Suryowati, T., Sunarti, L. S., Ahmad, L. N., Wiyanto, M., Kurniaty, L., & Hutabarat, R. S. O. (2020). The impact of COVID-19 on medical education: our students' perception on the practice of long distance learning. *International Journal of Community Medicine and Public Health*, 7(7), 1-7. DOI:10.18203/2394-6040.ijcmph20202545.
- Dunn, K. E., Rakes, G. C., & Rakes, T. A. (2014). Influence of academic self-regulation, critical thinking, and age on online graduate students' academic help-seeking. *Distance Education*, 35, 75-89. DOI :10.1080/01587919.2014.891426.
- Durak, G., & Cankaya, S. (2020). Undergraduate students' views about emergency distance education during the COVID-19 pandemic. *European Journal of Open Education and E-learning Studies*, 5(1), 122-147. DOI:10.46827/ejoe.v5i1.3441.
- Economic Commission for Latin America and the Caribbean [ECLAC] and United Nations Education, Scientific and Cultural Organization [UNESCO]. (2020). *Education in the time of COVID-19. COVID-19 Report*, United Nations. Retrieved March 18, 2020, from https://www.cepal.org/sites/default/files/publication/files/45905/S2000509_en.pdf

- Eickelmann, B., & Gerick, J. (2020). Lernen mit digitalen medien: Zielsetzungen in zeiten von corona und unter besonderer berucksichtigung von sozialen ungleichheiten [Learning with Digital Media: Objectives in Times of Corona and under Special Consideration of Social Inequities]. *Die Deutsche Schule*, 16, 153–162. DOI:10.31244/9783830992318.09.
- Emma, W., & Holie, W. (2020). *Protect every child's right to learn in the COVID-19 response and recovery. Save the Children International*. Retrieved March 18, 2020, from https://resourcecentre.savethechildren.net/node/17871/pdf/save_our_education_0.pdf
- Ergen, F. (2020, April 3). *Ogretmenler Uzaktan Egitimi Nasil Deneyimliyor?* Retrieved May 29, 2020, from <https://medium.com/@ogretmenagi/%C3%B6%C4%9Fretmenler-uzaktan-e%C4%9Fitiminas%C4%B1-deneyimliyor-c0db719cad0b>
- Ergenc, C. [@CerenJilan]. (2020, March 12). *Video lecture ve take home da olsa tek basina yapilacak sinavdan cok grup projeleri, hocayla ve sinif arkadaslariyla insani baglantiyi koruyacak canli forumlar gibi yontemlerin pedogojik olarak daha verimli oldugunu deneyimledik. [Tweet]*. Twitter. Retrieved May 20, 2020, from <https://twitter.com/CerenJilan/status/1238157849831837703>
- Fauzi, I., & Sastra Khusuma, I. (2020). Teachers' Elementary School in Online Learning of COVID-19 Pandemic Conditions. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 5(1), 58-70. DOI:10.25217/ji.v5i1.914.
- Feldman, J. (n.d.). *To grade or not to grade?*. <https://filecabinetdublin.schoolview.com/6D88CF03-93EE-4E59-B267-B73AA2456ED7/ToGradeorNottoGradearticle.pdf>
- Ferdig, R. E., Baumgartner, E., Hartshorne, R., Kaplan-Rakowski, R., & Mouza, C. (Eds). 2020. *Teaching, Technology, and Teacher Education during the COVID-19 Pandemic: Stories from the Field*. Association for the Advancement of Computing in Education (AACE). Retrieved March 15, 2020 from <https://www.learntechlib.org/p/216903/>
- Ferguson, N. M., Cummings, D. A. T., Fraser, C., Cajka, J. C., Cooley, P. C., & Burke, D. S. (2006). Strategies for mitigating an influenza pandemic. *Nature*, 442, 448-452. DOI:10.1038/nature04795.
- Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). COVID-19 and remote learning: Experiences of parents with children during the pandemic. *American Journal of Qualitative Research*, 4(3), 45-65. DOI:10.29333/ajqr/8471.
- Gelisli, Y. (2015). Practices of distance education for teacher training: History and development. *Journal of Research in Education and Teaching*, 4(3), 313-321. http://www.jret.org/FileUpload/ks281142/File/34.yucel_gelisli..pdf
- George, K. (2020). *TTUTA Tobago: Learning platforms ineffective*. Newsday, June 1. Retrieved March 15, 2020, from <https://newsday.co.tt/2020/06/01/ttuta-tobago-learning-platforms-ineffective/>
- Gilani, I. (2020, March 19). *Coronavirus pandemic reshaping global education system?* Anatolian Agency. Retrieved May 20, 2020 from <https://www.aa.com.tr/en/education/coronavirus-pandemic-reshaping-global-education-system/1771350>
- Golden, C. (2020, March 23). *Remote teaching: The glass half-full*. *EDUCAUSE Review*. Retrieved March 15, 2020, from <https://er.educause.edu/blogs/2020/3/remote-teaching-the-glass-half-full>
- Govindarajan, V., & Srivastava, A. (2020). *What the shift to virtual learning could mean for the future of higher education*. Harvard Business Review. Retrieved March 20, 2020, from <https://hbr.org/2020/03/what-the-shift-to-virtual-learning-could-mean-for-the-future-of-higher-ed>
- Greene, J. A., & Azevedo, R. (2007). *A theoretical review of Winne and Hadwin's model of self-regulated learning: New perspectives and directions*. *Review of Educational Research*, 77, 334–372. DOI:10.3102/003465430303953
- Hartley, K., & Bendixen, L. D. (2001). Educational research in the Internet age: Examining the role of individual characteristics. *Educational Researcher*, 30, 22-26. DOI:10.3102/0013189X030009022

- Hebebcı, M. T., Bertiz, Y., & Alan, S. (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 267-282. DOI:10.46328/ijtes.v4i4.113.
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). *The difference between emergency remote teaching and online learning*. EDUCAUSE Review. Retrieved March 15, 2020, from <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>
- Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., Zhang, L., Fan, G., Xu, J., & Gu, X. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet*. 395(10223), 497–506. DOI:10.1016/S0140-6736(20)30183-5.
- Huber, S. G., & Helm, C. (2020). COVID-19 and schooling: Evaluation, assessment, and accountability in times of crises—reacting quickly to explore key issues for policy, practice and research with the school barometer. *Educational Assessment, Evaluation and Accountability*, 32(2), 237–270. DOI:10.1007/s11092-020-09322-y.
- International Society for Technology in Education [ISTE]. (2019). *Better edtech buying for educators*. Arlington, VA: International Society for Technology in Education.
- Iwuoha, J. C., & Jude-Iwuoha, A. U. (2020). COVID-19: Challenge to SDG and globalization. *Electron. Res. J. Soc. Sci. Humanit*, 2, 103–115. Retrieved March 19, 2021, from <http://www.eresearchjournal.com/wp-content/uploads/2020/07/10.-Covid-19-Challenge-to-SDG-and-Globalisation-1.pdf>
- Jenkins, R. (2020, March 18). *Commentary: Ebola taught us why closing schools may be extreme*. Retrieved May 28, 2020, from <https://www.concordmonitor.com/Closing-schools-33403296>
- Johnson, R. B., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches*. (Demir, S. B. Trans. Ed.). Ankara: Egiten Kitap.
- Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning Journal*, 24(2), 6–21. DOI:10.24059/olj.v24i2.2285.
- Judd, J., Rember, B., A., Pellegrini, T., Ludlow, B., & Meisner, J. (2020). *This is not teaching: The effects of COVID-19 on teachers*. Retrieved March 14, 2021 from https://www.socialpublishersfoundation.org/knowledge_base/this-is-not-teaching-the-effects-of-covid-19-on-teachers/
- Karakaya, F., Arik, S., Cimen, O., & Yilmaz, M. (2020). Investigation of the views of biology teachers on distance education during the COVID-19 pandemic. *Journal of Education in Science, Environment and Health (JESEH)*, 6(4), 246-258. DOI:10.21891/jeseh.792984.
- King, F. B., Harner, M., & Brown, S. W. (2000). Self-regulatory behavior influences in distance learning. *International Journal of Instructional Media*, 27, 147–155. Retrieved May 29, 2020, from <https://www.learnlib.org/j/ISSN-0092-1815>
- Korkmaz, G., & Toraman, C. (2020). Are we ready for the post-COVID-19 educational practice? An investigation into what educators think as to online learning. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 293-309. DOI:10.46328/ijtes.v4i4.110.
- Korlu, O. (2020, April 7). *Uzaktan eğitim ama nasıl?* Retrieved May 22, 2020, from <https://fikirturu.com/toplum/uzaktan-egitim-ama-nasil/>
- Konig, J., Jäger-Biela, D. J., & Glutsch, N. (2020). Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*, 43(4), 608-622. DOI:10.1080/02619768.2020.1809650.
- Law, S., Leung, A. W. & Xu, C. (2020). Severe acute respiratory syndrome (SARS) and coronavirus disease-2019 (COVID-19): From causes to preventions in Hong Kong. *International Journal of Infectious Diseases*, 94, 156-163. DOI:10.1016/j.ijid.2020.03.059
- Li, H. O. & Bailey, A. M. J. (2020). Medical education amid the COVID-19 pandemic: New perspectives for the future. *Acad Med.*, 95(11), e11-e12. DOI:10.1097/ACM.0000000000003594.

- Lindner, J., Clemons, C., Thoron, A. & Lindner, N. (2020). Remote instruction and distance education: A response to Covid-19. *Advancements in Agricultural Development*, 1(2), 53-64. DOI:10.37433/aad.v1i2.39.
- Lim, D. H. (2004). Cross-cultural differences in online learning motivation. *Educational Media International*, 41, 163–175. DOI:10.1080/09523980410001685784
- Liu, O. L., Bridgeman, B., & Adler, R. M. (2012). Measuring learning outcomes in higher education motivation matters. *Educational Researcher*, 41, 352–362. DOI:10.3102/0013189X12459679
- Marinoni, G., Van't Land, H., & Jensen, T. (2020). *The impact of Covid-19 on higher education around the world*. IAU Global Survey Report. Retrieved March 15, 2020, from https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf
- Marshall, A. L., & Wolanskyj-Spinner, A. (2020). COVID-19: Challenges and Opportunities for Educators and Generation Z Learners. *Mayo Clin Proc*, 95(6), 1135-1137. DOI:10.1016/j.mayocp.2020.04.015.
- McCracken, H. (2005). Community in virtual learning environments. In J. Salmons (Ed.), *E-social constructivism and collaborative e-learning* (pp. 304–309). Springfield, IL: IGI Global.
- McKenzie, R. (2020). *Virtual classrooms challenge teachers*. Newsday, May 5. Retrieved March 15, 2020, from <https://newsday.co.tt/2020/05/05/virtual-classrooms-challenge-teachers/>
- Meyer, K. A., & Wilson, J. L. (2011). The role of online learning in the emergency plans of flagship institutions. *Online Journal of Distance Learning Administration*, 14(1). Retrieved March 14, 2020, from <https://www.learntechlib.org/p/52628/>
- Milliyet. (2020 April 29). *Okullar ne zaman acilacak sorusunun yaniti belli oldu! Milli Egitim Bakani Ziya Selcuk acikladi*. Retrieved May 26, 2020, from <https://www.milliyet.com.tr/galeri/okullar-30-nisanda-acilacak-mi-uzaktan-egitim-suresi-uzatilacak-mi-bilim-kurulu-ne-zaman-aciklama-yapacak-6201273/1>
- Miles, M. B., & Huberman, A. M. (2016). *Nitel veri analizi* (S. Akbaba Akgul ve A. Ersoy, Cev.). Ankara: Pegem Akademi Yayıncılık.
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *Int. J. Educ. Res.* 1, 100012 DOI:10.1016/j.ijedro.2020.100012
- Ministry of National Education [MoNE]. (2020a, 15 Nisan). *Bakan Selcuk, koronaviruse karsi egitim alaninda alinan tedbirleri acikladi*. Retrieved May 18, 2020, from <http://www.meb.gov.tr/bakan-selcuk-koronaviruse-karsi-egitim-alaninda-alinan-tedbirleri-acikladi/haber/20497/tr>
- Ministry of National Education [MoNE]. (2020b, 15 Nisan). *Uzaktan egitim 30 Nisan'a kadar devam edecek*. Retrieved May 18, 2020, from <https://www.aa.com.tr/tr/egitim/milli-egitim-bakani-selcuk-uzaktan-egitim-30-nisana-kadar-devam-edecek/1779414>
- Moor, M. G. (2020). *Q&A: A founder of distance education weighs in on its educational benefits*, University of Wisconsin-Madison News. Retrieved from: <https://news.wisc.edu/qa-a-founder-of-distance-education-weighs-in-on-its-educational-benefits/>
- Moore, R. L. (2014). Importance of developing community in distance education courses. *TechTrends*, 58(2), 20–24. DOI:10.1007/s11528-014-0733-x
- Moore, M. G., & Kearsley, G. (1996). *Distance education: A systems view*. Belmont, CA: Wadsworth.
- Moorhouse, B. L. (2020). Adaptations to a face-to-face initial teacher education course 'forced' online due to the COVID-19 pandemic. *Journal of Education for Teaching*, 46(4), 609-611. DOI:10.1080/02607476.2020.1755205.
- Morgan, H. (2020). Best practices for implementing remote learning during a pandemic. *The Clearing House: A Journal of Educational Strategies, Issues, and Ideas*, 93(3), 134-140. DOI:10.1080/00098655.2020.1751480

- Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, limitations, and recommendations for online learning during COVID-19 pandemic era. *Pak J Med Sci*, 36(COVID19-S4), 27-31. DOI:10.12669/pjms.36.COVID19-S4.2785.
- Mulyanti, B., Purnama, W., & Pawinanto, R. E. (2020). Distance Learning in Vocational High Schools during the COVID-19 Pandemic in West Java Province, Indonesia. *Indonesian Journal of Science & Technology*, 5(2), 271-282. DOI:10.17509/ijost.v5i2.24640.
- Murphy, M. P. (2020). COVID-19 and emergency eLearning: consequences of the securitization of higher education for post-pandemic pedagogy. *Contemporary Security Policy*, 41, 492–505. DOI:10.1080/13523260.2020.1761749.
- Nadeak, B. (2020). The effectiveness of distance learning using social media during the pandemic period of COVID-19: A Case in Universitas Kristen Indonesia. *International Journal of Advanced Science and Technology*, 29(7), 1764-1772. Retrieved March 19, 2021, from <http://repository.uki.ac.id/id/eprint/1717>
- National Foundation for Educational Research [NFER]. (2020). *Schools' responses to Covid-19*. Pupil Engagement in Remote Learning. Retrieved March 15, 2020, from <https://www.nfer.ac.uk/schools-responses-to-covid-19-pupil-engagement-in-remote-learning/>
- Nhlapo, C. M. (2020, May 11). *An inclusive response to COVID-19: Education for children with disabilities*. Retrieved May 26, 2020, from <https://www.globalpartnership.org/blog/inclusive-response-covid-19-education-children-disabilities>
- Qunaibi, A. (2020, June 17). *Distance Learning: inequality has left some students with sinking hearts*. Inter-agency Network for Education in Emergencies (INEE). Retrieved March 19, 2021, from <https://inee.org/blog/distance-learning-inequality-has-left-some-students-sinking-hearts>
- Pace, C., Pettit, S. K., & Barker, K. S. (2020). Best practices in middle level quaranteaching: Strategies, tips, and resources amidst COVID-19. *Journal of the Georgia Association for Middle Level Education*, 31(1), 1-13. DOI:10.20429/becoming.2020.310102.
- Palvia, S., Aeron, P., Gupta, P., Mahapatra, D., Parida, R., Rosner, R., & Sindhi, S. (2018) Online education: Worldwide status, challenges, trends, and implications. *Journal of Global Information Technology Management*, 21(4), 233-241. DOI:10.1080/1097198X.2018.1542262.
- Pather, N., Blyth, P., Chapman, J. A., Dayal, M. R., Flack, N. A., Fogg, Q. A., Green, R. A., Hulme, A. K., Johnson, I. P., Meyer, A. J., Morley, J. W., Shortland, P. J., Strkalj, G., Strkalj, M., Valter, K., Webb, A. L., Woodley, S. J., & Lazarus, M. D. (2020). Forced disruption of anatomy education in Australia and New Zealand: An acute response to the Covid-19 pandemic. *Anat Sci Educ*, 13, 284-300. DOI:10.1002/ase.1968.
- Patton, M. Q. (2014). *Nitel arastirma ve degerlendirme yontemleri*. (Butun, M. ve Demir, S. B. Cev. Ed.). Ankara: Pegem Akademi Yayincilik.
- Pham, H. H., & Ho, T. T. H. (2020). Toward a 'new normal' with elearning in Vietnamese higher education during the post COVID-19 pandemic. *Higher Education Research & Development*, 39(7), 1327-1331. DOI:10.1080/07294360.2020.1823945.
- Phirangee, K., & Malec, A. (2017) Othering in online learning: An examination of social presence, identity, and sense of community, *Distance Education*, 38(2), 160-172. DOI:10.1080/01587919.2017.1322457
- Prensky, M. (2001). Digital natives digital immigrants. *On the Horizon*, 9(5), 1-6. DOI:10.1108/10748120110424816.
- Promoting Integration of Syrian Kids into the Turkish Education System [(PIKTES)]. (2020 May 22). *EBA Live Course Application for Integration Classes*. Retrieved May 22, 2020, from <https://piktes.gov.tr/Haberler/Details/282>

- Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, I. M., & Hyun, C. C. (2020). Impact of the COVID19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*, 29(05), 4809 - 4818. Retrieved March 14, 2021, from <http://sersc.org/journals/index.php/IJAST/article/view/13867>
- Reimers, F. M., & Schleicher, A. (2020). *A framework to guide an education response to the COVID-19 Pandemic of 2020*. Retrieved May 26, 2020, from 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
- Riser-Kositsky, M. (2019). *Education statistics: Facts about American schools*. Education Week. Retrieved May 20, 2020, from <https://www.edweek.org/ew/issues/education-statistics/index.html>
- Rizun, M., & Strzelecki, A. (2020). Students' acceptance of the COVID-19 impact on shifting higher education to distance learning in Poland. *Int. J. Environ. Res. Public Health*, 17, 6468. DOI:10.3390/ijerph17186468.
- Rovai, A. P., & Wighting, M. J. (2005). Feelings of alienation and community among higher education students in a virtual classroom. *The Internet and Higher Education*, 8, 97–110. DOI:10.1016/j.iheduc.2005.03.001.
- Saddik, B., Hussein, A., Sharif-Askari, F. S., Kheder, W., Temsah, M., H., Koutaich, R., A., Haddad, E., S., Al-Roub, N., M., Marhoon, F., A., Hamid, Q., & Halwani, R. (2020). Increased Levels of Anxiety Among Medical and Non-Medical University Students During the COVID-19 Pandemic in the United Arab Emirates. *Risk Manag Healthc Policy*, 13, 2395-2406. DOI:10.2147/RMHP.S273333.
- Saldana, J. (2016). *The coding manual for qualitative researchers*. Los Angeles, CA: Sage.
- Sarac, Y. Y. [@yekta_sarac]. (2020, May 11). 3- *Universitelerimizdeki sinavlar, seffaf ve denetlenebilir olma sartıyla, "dijital imkanlar" veya "odev, proje gibi alternatif yontemler uygulanarak" yapılacaktır. Buna iliskin ek duyurulari universitelerinizden takip edebilirsiniz.* [Tweet]. Twitter. Retrieved May 23, 2020, from https://twitter.com/yekta_sarac/status/1259927025353207808
- Saravara III JD, S. (2007). Business continuity planning in higher education due to pandemic outbreaks. *Journal of Security Education*, 2(3), 41-51, DOI:10.1300/J460v02n03_04
- Schlesselman, L. S. (2020). Perspective from a teaching and learning center during emergency remote teaching. *American Journal of Pharmaceutical Education*, 84(8), DOI:10.5688/ajpe8142
- Scull, J., Phillips, M., Sharma, U., & Garnier, K. (2020). Innovations in teacher education at the time of COVID19: An Australian perspective. *Journal of Education for Teaching*, 46(4), 497–506. DOI:10.1080/02607476.2020.1802701.
- Selcuk, Z. [@ziyaselcuk]. (2020a, May 18). *Sayin cumhurbaskanimiz kabine toplantisi sonrasinda okullarimizda yuz yuze egitimin tamamlandigini acikladi.* [Tweet]. Twitter. Retrieved May 23, 2020, from <https://twitter.com/ziyaselcuk/status/1262442308492054531>
- Selcuk, Z. (2020b, March 3). *Bakan Selcuk'tan onemli aciklama: Okullarda uzaktan egitim 30 Nisan'a kadar uzatildi.* Retrieved May 23, 2020, from <https://www.haberturk.com/bakan-selcuk-tan-onemli-aciklama-2625135>
- Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. 2009. *Teaching and learning at a distance: Foundations of distance education, (4th ed.)*. Boston: Allyn & Bacon.
- Sindiani, A. M., Obeidat, N., Alshdaifat, E., Elsalem, L., Alwani, M. M., Rawashdeh, H., Fares, A. S., Alalawne, T., & Tawalbeh, L. I. (2020). Distance education during the COVID-19 outbreak: A cross-sectional study among medical students in North of Jordan. *Annals of Medicine and Surgery*, 59, 186-194. DOI:10.1016/j.amsu.2020.09.036.
- Stacey, E., Peter, S. J., & Barty, K. (2004). Adult learners in the workplace: Online learning and communities of practice. *Distance Education*, 25(1), 107-123. DOI:10.1080/0158791042000212486.

- Suriyeli Çocukların Türk Eğitim Sistemine Entegrasyonunun Desteklenmesi Projesi. [The Project of Supporting the Integration of Syrian Children into the Turkish Education System]. (2020, March 25). *Piktes*, “Uyum için Türkçe” ile uzaktan eğitime basılıyor. (Piktes starts distance education with “Turkish for Adaptation”). Retrieved May 28, 2020, from <https://piktes.gov.tr/Haberler/Details/267>
- Suryaman, M., Cahyono, Y., Muliensyah, D., Bustani, O., Suryani, P., Fahlevi, M., Pramono, R., Purwanto, A., Purba, J. T., Munthe, A. P., & Harimurti, S. M. J. (2020). COVID-19 pandemic and home online learning system: Does it affect the quality of pharmacy school learning? *Sys Rev Pharm*, *11*(8), 524-530. DOI:10.31838/srp.2020.8.74.
- Tedmem. (2021, March 8). *COVID-19 ve dünyada okulların durumu*. Retrieved March 15, 2020, from <https://tedmem.org/covid-19/covid-19-ve-dunyada-okulların-durumu>
- The International Task Force on Teachers for Education 2030. (2020). *Response to the COVID-19 outbreak – Call for action on teachers*. Retrieved May 26, 2020, from <http://www.teachersforefa.unesco.org/v2/index.php/en/ressources/file/470-response-to-the-covid-19-outbreak-call-for-action-on-teachers>
- Toquero, C. M. (2020). Emergency remote education experiment amid COVID-19 pandemic. *IJERI: International Journal of Educational Research and Innovation*, *15*, 162–176. DOI:10.46661/ijeri.5113.
- Turkey Education Volunteers Foundation. (2020). *Covid-19 period situation assessment report*. Retrieved May 29, 2020, from <https://tegv.org/dosyalar/covid-19-donemi-uzaktan-egitim-durum-degerlendirme-raporu.pdf>
- Turkish Statistical Institute [TUIK]urkiye Istatistik Kurumu. (2019). *Hanehalki bilisim teknolojileri (BT) kullanim arastirmasi*. Retrieved May 15, 2020, from <http://tuik.gov.tr/PreHaberBultenleri.do?id=30574>
- UNESCO Institute for Statistics. (2020). *Global Monitoring of School Closure Caused By Covid-19*. Retrieved May 20, 2020, from <http://data.uis.unesco.org/#>
- UNESCO Bangkok. (2020, May 4). *Empowering students with disabilities during the COVID-19 crisis*. Retrieved May 26, 2020, from <https://bangkok.unesco.org/content/empowering-students-disabilities-during-covid-19-crisis>
- United Nations International Children’s Emergency Fund [UNICEF]. (2020). *Education and COVID-19*. Retrieved March 18, 2020 from <https://data.unicef.org/topic/education/covid-19/#status>
- United Nations. (2020). *Policy Brief: Education during COVID-19 and beyond*. Retrieved March 18, 2020, from https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/08/sg_policy_brief_covid-19_and_education_august_2020.pdf
- Wei, H. C., & Chou, C. (2020) Online learning performance and satisfaction: do perceptions and readiness matter? *Distance Education*, *41*(1), 48-69. DOI:10.1080/01587919.2020.1724768.
- Whipp, J. L., & Chiarelli, S. (2004). Self-regulation in a web-based course: A case study. *Educational Technology Research and Development*, *52*. DOI:10.1007/BF02504714.
- Williamson, B., Eynon, R., & Potter, J. (2020). Pandemic politics, pedagogies, and practices: Digital technologies and distance education during the coronavirus emergency. *Learning, Media, and Technology*, *45*(2), 107-114. DOI:10.1080/17439884.2020.1761641.
- Whiteman, J. M. (2002). *Interpersonal communication in computer-mediated learning (White paper)*. Orlando, FL: University of Central Florida. Retrieved from ERIC database (ED 465997).
- World Health Organization. (2020). *Key considerations for repatriation and quarantine of travelers in relation to the outbreak of novel coronavirus 2019-nCoV. Feb. Geneva (Switzerland): WHO*. Retrieved May 15, 2020, from https://www.who.int/ith/Repatriation_Quarantine_nCoV-key-considerations_HQ-final11Feb.pdf?ua=1

- World Health Organization. (2010, Feb 24). *What is a pandemic?* Retrieved May 12, 2020, from https://www.who.int/csr/disease/swineflu/frequently_asked_questions/pandemic/en/
- Verma, A., Verma, S., Garg, P., & Godara, R. (2020). Online teaching during COVID-19: Perception of medical undergraduate students. *Indian J Surg*, 82, 299-300. DOI:10.1007/s12262-020-02487-2.
- Yaylak, E. (2019). The attitudes and opinions of prospective teachers towards the use of technology in education. *International Journal of Education Technology and Scientific Researches*, 4(9), 149-175. DOI:10.35826/ijetsar.20.
- Yilmaz Ince, E., Kabul, A. & Diler, I. (2020). Distance education in higher education in the COVID-19 pandemic process: A case of Isparta Applied Sciences University. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 343-351. DOI:10.46328/ijtes.v4i4.112.
- Zayimoglu Ozturk, F., Yaylak, E., & Ozturk, T. (2020). Preservice classroom teachers' opinions on micro teaching in life sciences teaching. *International Journal of Eurasian Education and Culture*, 5(10), 1749-1802. DOI:10.35826/ijoecc.239.
- Zhang, W., Wang, Y., Yang, L., & Wang, C. (2020). Suspending classes without stopping learning: China's education emergency management policy in the COVID-10 outbreak. *Journal of Risk and Financial Management*, 13(3), 1–6. DOI:10.3390/jrfm13030055.