



# Covid-19 distance education process from different perspectives: Being a school stakeholder during the pandemic

Özden Ölmez Ceylan<sup>a</sup> \*

<sup>a</sup> Ministry of National Education, İzmir, Turkey

## Abstract

The Covid-19 pandemic has caused a butterfly effect all over the world, giving rise to storms in many areas such as education, health and economy. Considering the partners of the educational organizations, it was seen that many students, parents, teachers and administrators were deeply affected by the epidemic process. Many countries had to close their schools to prevent the spread of the epidemic. In the study it was aimed to understand what happened and to put forward some practical solutions based on the opinions of administrators, teachers, students and parents regarding distance education during the Covid-19 pandemic. In the study, a multiple case study design was used to examine the distance education process comprehensively according to the qualitative research method. The opinions of the administrators, teachers, students and parents in distance education process in different regions and socio-economic schools of İzmir were consulted according to the maximum diversity sampling method. Their opinions were collected via a semi-structured interview form using Zoom application and the data were subjected to content analysis. As a result of the analyzes, when the distance education process was evaluated from the point of view of managers, it was seen that they experienced problems in crisis management, teacher motivation and planning. Teachers, on the other hand, were found to have problems in classroom management and digital literacy. The students had difficulties in motivating in the lesson and gave up attending live lessons due to systemic problems. It was determined that parents had difficulties in supporting their children. Policy makers work on possible scenarios in order to be prepared for possible crisis moments such as Covid-19 pandemics; managers are trained for crisis and change management, assigning individuals with sustainable leadership qualities as managers, ensuring teachers to receive the necessary training to become literate of information and communication technologies, developing students' skills such as self-control and problem solving, implementing a family education system that includes pedagogical support for parents. etc. are among the suggestions brought in the context of the study.

**Keywords:** Covid-19, educational administration, distance education, effects of pandemic

© 2016 IJCI & the Authors. Published by *International Journal of Curriculum and Instruction (IJCI)*. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (CC BY-NC-ND) (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

\* Corresponding author: Özden ÖLMEZ CEYLAN  
E-mail address: [olmezozden@gmail.com](mailto:olmezozden@gmail.com)

## 1. Introduction

The world is made up of interrelated parts. Therefore, a change in one region causes a change in another region. As mentioned in chaos theory, a butterfly flapping its wings in Beijing causes a storm in New York and the system enters into a chain of change (Bülbül, 2018). The Covid 19 pandemic has also created a butterfly effect all over the world, causing storms in many areas such as education, health and economy. Undoubtedly, all the stakeholders of the education system, including students, teachers, administrators and parents were deeply affected by these storms. According to the data announced by the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020) on April 13, 2020, education in schools was suspended in 192 countries affected by the COVID-19 epidemic and more than 1.5 billion students were left away from face-to-face education. In this process, various countries have been in search of alternatives for the continuation of the interrupted educational activities in order to ensure the sustainability of education. Many countries such as China, Italy, France, Portugal, Estonia, Japan and Turkey have started distance education with their technological infrastructures. In the first phase of the pandemic, each country has found solutions to the problems experienced in education within their own capacity.

For example, in China, teachers have been organized for teachers from different branches to conduct online training. State and municipal education departments have commissioned experts to provide schools with teaching resources and teaching plans (OECD, 2020; Sözen, 2021; Yaman, 2021). In order to continue education, the Ministry of Education in Italy has created special online pages, video sessions and virtual meeting areas. It has facilitated the use of digital content and new models of educational organization. It provided free distance education and up-to-date tools to teachers, as well as technical support to schools and organized webinars with regional working groups. It initiated monitoring initiatives, and economic support formations for socio-economically disadvantaged students (Kottasová & Isaac, 2020; OECD, 2020; Togoh, 2020).

In France, they used existing networks so that students could do their homework and exercises and access course materials. This service was carried out through a free pedagogical platform called Cned “My class is at home”. This platform provides the opportunity to conduct virtual lessons, thus maintaining a human connection between the student, classmates and teachers (OECD, 2020).

Portugal; has established a support network, including guidance for the preparation of online courses, organizational issues, and the use and delivery of free open content resources. It has prepared an orientation guide on the roles for the organization, program and normalization of the school. It also established a network with partner institutions to enable communication (OECD, 2020).

Estonia, the National Center for Education (affiliated to the Ministry of Education and Science of the Republic of Latvia) has developed Methodological Principles for the Application of Distance Learning in Professional and General Educational Institutions to support the implementation of distance learning in all schools. Suggestions were made to school administrators, teachers and parents on how to organize and adapt the distance learning process, and how to change the learning program. They provided guidelines to ensure the well-being of all teachers and students. In addition, a Guide for Families, a Guide for Teachers, and Information and Communication Technologies Recommendations for Teachers have been published online. National Television has also broadcast famous plays for school-age audiences. With the coordination of the Ministry of Education and Science, technological support was provided to students who did not have an internet connection at home. The largest mobile network operators LMT and BITE have provided mobile phones and tablets to around 5000 students (about 3 percent of the total number of students) in Latvia. Steps have been taken to increase data flow capacity in cooperation with ICT institutions and municipalities (OECD, 2020).

In Japan, MEXT (Ministry of Education, Culture, Sports, Science and Technology) has supported local education boards that offer as equal measures as possible to support students' studies. It has also set up a learning portal that offers a variety of advice and tips for learning each subject, free learning materials and videos that can be used at home, etc., as well as good practices from schools and education boards. It has also provided information on online learning through its official websites (OECD, 2020).

With the first case seen on March 11 in Turkey and the spread of the epidemic, the decision to close schools was taken, and distance education was started in a short time as in other countries. Education continued through Informatics Network in Education (EBA), TRT, EBA TV supported by the Ministry of National Education, platforms that enable video and audio participation on the Internet and distance education systems of schools. EBA Support Points and Mobile Support Points have been established in various places for students who cannot access distance education. For inclusive education activities, EBA training videos have been prepared with sign language support (MEB, 2021).

In order to ensure the sustainability of education in many different countries of the world, emergency measures packages using digital technologies have been implemented. (Angoletto & Queiroz, 2020). With the interruption of face-to-face education, online platforms have become the most frequently used tools. (Reimers & Schleicher, 2020). Online tools range from educational content to learning programs, from virtual meetings to teacher-led online classes (Schleicher, 2020).

Distance education has facilitated the continuation of education all over the world. Distance education, which is defined as a planned open access learning method that requires special instructional design and technologies, where the learner and the

instructor are in different places (Moore & Kearsley, 2011), created the opportunity to communicate between teachers and students during the covid-19 process and provided a working environment (Altıparmak, Kurt & Kapıdere, 2011). In addition, the recorded lesson videos can be watched later, allowing students to access materials such as documents and videos individually (Solak, Ütebay & Yalçın, 2019). In this respect, distance education is a field that tries to eliminate the limitations between the learner and the teacher (Bozkurt, 2017). However, distance education has brought disadvantages as well as advantages. In this context, the quality of the distance education process has started to be discussed and various studies have been carried out.

Considering the studies on student opinions, it is seen that they generally perceive the process negatively. Kara (2020) found that students expressed themselves with feelings such as restless, worried and sad in this process. It is thought that the reasons for the students to feel these feelings is due to the problems and impossibilities experienced in the process. It is seen that students who have problems in socialization, who cannot be motivated to the lesson, and who think the lessons are boring prefer face-to-face education (Pınar & Döngel Akgül, 2020). In the literature, it is stated that students who have deficiencies in motivation and communication also experience technical problems (Gewin, 2020; Taşar, 2021; Özdoğan & Berkant, 2020). Technological impossibilities and lack of infrastructure (Giannini & Lewis, 2020; Harris, 2020) in researches in which students' opinions are included (Arslan & Şumuer, 2020; Doğan & Koçak, 2020; Fidan, 2020; Hebebcı, Bertiz & Alan, 2020; Taşar, 2021; Kavuk & Demirtaş, 2021; Metcalfe & Perez 2020; Toprakçı et al., 2021) are among the most frequently mentioned problems in distance education.

When the education in the covid-19 process is evaluated according to the opinions of the teachers, it is seen that common problems with other stakeholders in addition to the problems related to the student were mentioned. Problems such as communication problems with students and parents, problems caused by student behavior during live lessons, problems caused by students and parents not using technological tools, lack of internet at home, connection problems in distance education, lack of computer and digital literacy were emphasized in the researches (Bergson-Shilcock, 2020; Fidan, 2020; Gezer & Durdu, 2020; Hebebcı, Bertiz & Alan, 2020; Özdoğan & Berkant, 2020; Ölmez Ceylan, 2021b; Kavuk & Demirtaş, 2021). Not being able to do assessment, evaluation and homework control, unsuitable working environments at home (Balaman & Hanbay Tiryaki, 2021; Çakın & Akyavuz, 2020; Erkoca, 2021) are among the other highlighted problems. Problems such as excessive involvement of parents in the teaching process, decrease in teacher-student communication, decrease in professional satisfaction (Yılmaz, Mutlu, Doğanay, 2020) were also expressed by teachers.

Studies in which parents' views on distance education in the Covid-19 process are also included in the literature. In the study of Altunel and Özoğul (2020), it was stated that the role of parents in education increased during the pandemic process and this situation caused anxiety in parents. Parenting is not an easy responsibility and during the pandemic, parenting has faced completely different challenges (UNESCO, 2020). As in face-to-face education, it is very important for families to nurture students' activities (İnci Kuzu, 2020). However, it is also stated in the literature that parents have difficulties in providing the technological infrastructure and at the same time they are worried about their children's use at the level of addiction (Okatan & Tagay, 2021; Saltuk & Erciyes, 2020; Yılmaz, Güner, Mutlu, Doğanay & Yılmaz, 2020). It has been revealed that inequalities in access to information and communication technologies cause learning inequalities among students (Bennett, Uink, & Cross, 2020).

When the researches on school administrators are examined, it is seen that various problems are expressed. In this process, school administrators stated that they experienced problems such as lack of communication, technical inadequacy, lack of information, indifference of teachers and lack of planning (Çakın & Külekçi Akyavuz, 2020). It is seen that the pandemic process negatively affects the personal and professional activities of school principals (Çağlar & Kılınç, 2020). It has been revealed that this process causes problems such as reducing socialization, lack of assessment and evaluation, lack of participation in classes, insufficient infrastructure and equipment, lack of legislation and lack of administrative control (Ölmez Ceylan, 2021a). Some school administrators, on the other hand, stated that the distance education process has positive contributions such as being economical, eliminating time and space limitations, and providing individual study responsibility (Kavrayıcı & Kesim, 2021).

It is thought that it is important to investigate the quality of distance education in Turkey and to reveal the views of the stakeholders of this process. When the researches available in the literature are evaluated in general, it is seen that the researches for teachers, students, parents and administrators regarding distance education during the Covid-19 pandemic period are given from a single point of view. For this reason, it is thought that this study will contribute to the field in terms of evaluating distance education in a broader and holistic way and providing information to practitioners, researchers and policy developers. In addition, this study on Turkey can be an example for countries with similar problems. In this context, in order to understand what happened and to present forward-looking solutions, it was aimed to determine the views of administrators, teachers, students and parents on distance education executed because of the Covid-19 epidemic. In this framework, the problem sentence of the study can be expressed as "What are the stakeholder (administrators, teachers, students, parents) views on the distance education process implemented in Turkey due to the Covid-19 pandemic?"

## 2. Method

### 2.1. Research design

In the study, a multiple case study was used to examine the distance education process comprehensively according to the qualitative research method. Case studies in social sciences are employed to understand a complex social phenomenon and current events such as individual life cycles (Yin, 2003). According to Patton (2015), the cases that to be researched could be individuals, groups, institutions, and cultures. In that regard the case focused on by this study is teachers', students', parents' and school administrators' experiences on during the distance education in COVID-19 pandemic.

### 2.2. Study Group

Study Group, consisted 5 administrators, 10 teachers, 10 students and 10 parents. The characteristics of the study group are shown in Table 1.

Table 1. Characteristics of the study group

Participant	School types	Branch	Gender
administrator 1	elementary	class	male
administrator 2	elementary	class	male
administrator 3	secondary	Turkish	male
administrator 4	secondary	science	male
administrator 5	secondary	social studies	male
teacher 1	secondary	Turkish	female
teacher 2	elementary	class	female
teacher 3	secondary	English	male
teacher 4	secondary	math	female
teacher 5	elementary	class	male
teacher 6	secondary	music	male
teacher 7	secondary	science	female
teacher 8	elementary	class	female
teacher 9	secondary	Turkish	female
teacher 10	secondary	social studies	male
student 1	elementary	-	male
student 2	elementary	-	male
student 3	elementary	-	female
student 4	elementary	-	female
student 5	secondary	-	female
student 6	secondary	-	female
student 7	secondary	-	female
student 8	secondary	-	male
student 9	secondary	-	male
student 10	secondary	-	male

parent 1	elementary	-	female
parent 2	elementary	-	female
parent 3	elementary	-	female
parent 4	elementary	-	female
parent 5	secondary	-	female
parent 6	secondary	-	female
parent 7	secondary	-	female
parent 8	secondary	-	male
parent 9	secondary	-	male
parent 10	secondary	-	male

In the first stage of the sample, snowball-sampling method, which is one of the purposeful sampling methods, was used. For the snowball sample, the researcher contacted the teachers and principals around her. Interviewed teachers and principals were asked the question, "Who else can I talk to about this topic?" etc. with the aim of increasing the number and diversity of participants (Patton, 2002).

In the second stage of the sample, criterion-sampling method, one of the purposeful sampling methods, was used. Criterion sampling makes it possible to study situations that meet a set of predetermined criteria (Yıldırım & Şimşek, 2016). For this reason, attention was paid to the criteria that the participants are primarily at the middle school level, are part of the distance education process and volunteer to participate in the study. Within this framework, the teachers contacted students and their parents who could voluntarily participate in the study via Whatsapp messages. Participants were contacted in line with the feedbacks.

While determining the sample, maximum diversity of purposeful sampling methods was also used. The purpose of using the maximum diversity sampling is to see whether there are similar cases among the diverse situations or not. (Yıldırım & Şimşek, 2016). For this purpose, participants chosen from different socioeconomic regions were contacted.

### 2.3. Data Collection

Data were collected via interview technique. Their opinions were collected via a semi-structured interview form via Zoom application. Research data has been analyzed in accordance with categorical analysis techniques from content analysis types. With content analysis, data was first read, and then important dimensions were determined. By organizing the obtained sub-themes and themes, the findings were defined and interpreted. Participants were coded in the form of A1 (administrator), T1 (teacher), S1 (student), P1 (parent).

#### *2.4. Reliability and Validity*

The validity and reliability of studies with different designs, different assumptions, and different research questions depend on the way the data are collected, analyzed, interpreted, and conceptualized (Merriam, 2009). For validity, data were collected from many and diverse participants, and confirmation from colleagues and participants was received for analysis. The researcher has many studies made with qualitative research method. In addition, the researcher is a Turkish language teacher. And she worked as a Turkish teacher in the distance education process.

It is emphasized that the reliability of the literature can be increased by taking expert opinion, including direct quotations and making diversification. Accordingly, expert opinions of two other researchers about the study were received. In addition, detailed reporting of the process was made.

The raw data of the research has been stored in order to be presented on demand or to enable comparison of data in another future research, in order to increase external reliability.

### **3. Findings**

In this section, there are content analyzes of the views of administrators, teachers, students and parents regarding distance education implemented due to covid 19. The views of the stakeholders were gathered under themes and sub-themes and quotations were included.

#### *3. 1. Administrators views*

In the research, the first set results by the analysis of the data regards administrators' opinions on distance education. There are three main themes in this data set. The themes and sub-themes formed by these views are shown in tables.



Table 2. Administrators' views on the distance education process applied due to COVID-19

Main Themes	Sub-Themes	Views
1. Systematic Problems	1.1. Structuring the distance education process	<ul style="list-style-type: none"> <li>We are responsible as the school management. However, we could not get into action, as we do not have the authority. We waited for the Ministry to inform us. This process was troublesome. (A2)</li> <li>Since we have not encountered such a situation before, we did not know what to do. We had to wait, we were desperate. I had difficulties in managing the crisis on my own behalf; I waited for MEB (The Ministry of National Education) to find a solution. (A4)</li> </ul>
	1.2. Infrastructure (technical) problem	<ul style="list-style-type: none"> <li>I had difficulty in assigning lessons to teachers. The system worked late. We reached the teacher late because the assignment permission was given at the last minute. There were such technical problems. (A3)</li> </ul>
2. Individual Problems	2.1. Digital Literacy	<ul style="list-style-type: none"> <li>A new concept called "zoom" has entered our lives. I was worried before using the program. It took time to adapt. (A1)</li> <li>We held the meetings over zoom. Although it is a simple app it was difficult at the beginning. We all have smartphones, but it is time to refresh the information. (A5)</li> </ul>
	2.2. Lack of Tools	<ul style="list-style-type: none"> <li>We had to manage the school from home. I did not have the necessary technological equipment at home. I couldn't use it efficiently since my children needed to use it as well. In this period, needs such as the internet and computer occurred. (A5)</li> </ul>
3. Management Process	3.1. Change management	<ul style="list-style-type: none"> <li>I had difficulties in motivating teachers and enable them to provide voluntary distance education. Some of them never participated, they were not convinced. Some teachers were volunteers at the beginning. It was difficult to ensure unity. (A5)</li> <li>In fact, the teacher, who was hardworking at school, was also active in this process. Trying to motivate people made me tired. (A1)</li> </ul>
	3.2. Crisis management	<ul style="list-style-type: none"> <li>I had trouble communicating with parents. They expected solutions from me for uncertainties, but I did not have the solution. I was desperate. (A4)</li> <li>I could not make students who don't have tools or internet participate in education. They did not give support in developing solutions. (A3)</li> <li>By establishing a team with the participation of IT teachers and active teachers in the process, I supported other teachers in need. At least this resulted in more distance educations. (A2)</li> </ul>

As seen in Table 2, school administrators experienced problems, as they were unprepared in the distance education process. The opinions of school principals are grouped under three themes: systematic, individual and management processes. School managers experienced technical problems related to inability to connect to the system, internet insufficiency and infrastructure. School administrators experienced problems due to the lack of digital literacy skills during distance education. Also some of the school principals had difficulties in their home environments as they did not have their own computers or tablets. In addition, it has been seen that school principals face resistance during the change management process. It was observed that some school principals remained passive during the crisis, while others were looking for solutions.

### *3. 2. Teachers' views*

In this part of the research, the data were analyzed and the views of teachers on distance education were summarized. Teacher opinions are grouped under four themes. The themes and sub-themes formed by these views are shown in tables.

Table 3. Teachers' views on the distance education process applied due to COVID-19

Main Themes	Sub-Themes	Views
1. <b>Class Management</b>	1.1. <b>Communication</b>	<ul style="list-style-type: none"> <li>• During the lesson, I had a communication problem since the students' cameras were turned off. I felt like I was talking to the space. I felt that I wasn't able to establish control, without seeing the gestures and facial expressions. (T 5)</li> </ul>
	1.2. <b>Behavioral Disorder</b>	<ul style="list-style-type: none"> <li>• Students could not adapt at the beginning as they are in home environment and this application was new to them. Some intentionally turned on the microphone and made noise. Some scribbled the virtual screen. (T9)</li> </ul>
	1.3. <b>Student Motivation</b>	<ul style="list-style-type: none"> <li>• At the beginning, the number of students attending the classes was quite high, almost full attendance was achieved. However, the attendance rate decreased seriously towards the end. Towards the end, there were only 3-4 students in the class. As there was no compulsory attendance to classes, we could not maintain attendance. Their motivation diminished when it was announced that the first term grades would be valid. (T4)</li> </ul>
	1.4. <b>Course Material</b>	<ul style="list-style-type: none"> <li>• As we were teaching lessons from the books at schools, we didn't have any course materials to use during distance education. I downloaded some materials from the internet and started using it, but did not get enough efficiency. (T2)</li> </ul>
2. <b>Qualifications</b>	2.1. <b>Digital Literacy</b>	<ul style="list-style-type: none"> <li>• When I started classes, I didn't know what the Zoom application was. Besides, I do not have a good command of the computer. This process worried me. I felt quite inadequate. (T1)</li> </ul>
	2.2. <b>Lack of Tools</b>	<ul style="list-style-type: none"> <li>• I had difficulties because my computer at home was too old. (T8)</li> <li>• My class hours collided with my daughter's class hours, and since there was only one computer at home, my daughter sometimes attended her classes from the mobile phone as I used the computer. (T1)</li> </ul>

	<b>2.2. Colleague Collaboration</b>	<ul style="list-style-type: none"> <li>We would really have great difficulty if we did not have an IT teacher. Other colleagues helped as well. I would have had a hard time without my colleagues' support. We supported each other psychologically as well. This support did us good. (T3)</li> </ul>
	<b>2.3. Personal Development</b>	<ul style="list-style-type: none"> <li>The best part of this process was that I could follow many broadcasts that I wanted to watch. I was able to spare time for myself away from the fatigue of school noise and my course load. For example, I watched the broadcasts of some experts that I followed on Instagram. I joined webinars. I haven't been spending time for my own development. This process allowed me to do it. (T10)</li> </ul>
<b>3. Systemic Problems</b>	<b>3.1. Uncertainty</b>	<ul style="list-style-type: none"> <li>Feelings of uncertainty and inability to see ahead were challenging. Uncertainties regarding when, how and what time the lesson would be exhausting. Even the time of the lesson could not be determined one day before. At the beginning, we didn't even know on which platform would the class be held. (T3)</li> </ul>
	<b>3.2. Infrastructure (technical problems)</b>	<ul style="list-style-type: none"> <li>I had trouble because my internet was limited. Even connecting to the system was difficult most of the time. (T8)</li> </ul>
		<ul style="list-style-type: none"> <li>We had many problems starting the lesson. The application was sometimes throwing me or the students out during the lessons. Once, I was cut off from the system 4-5 times along the course and we wasted time until I was reconnected. Students had similar problems as well. There were even those who did not attend the class. This made me stressed. (T1)</li> </ul>
<b>4. Individual Problems</b>	<b>4.1. Responsibilities at Home</b>	<ul style="list-style-type: none"> <li>Both school and home-related responsibilities overlapped. We had to exchange WhatsApp messages with parents, students and school groups until late hours at nights. We were considered suitable and available since we are at home all times. However, we had to deal with food, laundry and shopping at the same time. In addition to these, our children had other requests from us. The period was exhaustive. (T7)</li> </ul>
	<b>4.2. Psychological Factors</b>	<ul style="list-style-type: none"> <li>I was mentally depressed due to conditions of working from home, health related concerns, pressure of being in constant communication with students and parents, not being able to socialize. After all, this was not a holiday. The house was my resting area and I got more fatigue in this process (T5)</li> </ul>

As seen in the table teachers experienced various problems as class management, qualification, systemic and individual. Teachers experienced communication problems with students in the management of virtual classrooms because the cameras were turned off and some students could not attend the class due to lack of equipment. In addition, the lack of rules and a new experience for everyone in the virtual classroom led to communication problems. At the same time, teachers had difficulties at their homes, due to lack of or insufficiency of tools such as computers, tablets. Moreover, teachers experienced a lack of digital literacy skills during distance education. And teachers experienced the problem of using required course materials in distance education, as they were unprepared. Therefore, colleague collaboration has gained importance in the distance education process. Teachers shared information among themselves. And teachers were able to make time for their personal developments. They held activities aimed at improving themselves such as webinars, hobbies, and reading books. However, they experienced problems arising from the uncertainty they experienced and the administrative uncertainties in distance education. They also had communication problems with parents due to uncertainty. Moreover, they had problems due to their responsibilities at home during distance education. Responsibilities at home as both mothers and teachers challenged them. Due to such reasons, teachers were psychologically worn out throughout the process.

### 3. 3. Students' views

In this part of the research, the data were analyzed and the views of students on distance education were summarized. Student opinions are grouped under four themes. The themes and sub-themes formed by these views are shown in tables.

Table 4. Students' views on the distance education process applied due to COVID-19

<b>Main Themes</b>	<b>Sub-Themes</b>	<b>Views</b>
<b>1. Equality of Opportunity</b>	<b>1.1. Lack of equipment</b>	<ul style="list-style-type: none"> <li>• We did not have a computer at home; we had to buy a tablet. (S8)</li> <li>• Sometimes, my class hours collided with my brother's class hours, and since there was only one computer at home, either my brother or I attended classes from our mobile phones. (S1)</li> </ul>
	<b>1.2. Working environment</b>	<ul style="list-style-type: none"> <li>• It was very difficult to take classes at the same time with my brother at home. Voices overlapped. I had trouble listening to the lesson. (S2)</li> </ul>
	<b>1.3. Internet connection</b>	<ul style="list-style-type: none"> <li>• Since we don't have internet connection at home, I was connecting to classes on the mobile phone. When my father got password from our neighbor, I connected to classes more easily. (S5)</li> </ul>

<b>2. Course Process</b>	<b>2.1. Applications Used in Lessons</b>	<ul style="list-style-type: none"> <li>• Some of our teachers' classes were very boring; I could not focus on those lessons. Some of them were doing activities, making presentations, making us watch short videos and asking questions. Those lessons were easier to follow. (S7)</li> </ul>
	<b>2.2. Uncertainties in the Curriculum</b>	<ul style="list-style-type: none"> <li>• At night, the teacher had sent a message saying that the class would be at 9 o'clock. I could not catch the lesson, as I woke up late. (S9)</li> </ul>
	<b>2.3. Communication</b>	<ul style="list-style-type: none"> <li>• I hesitated to speak in the lesson. Since the camera was off, nobody could see me and I was listening quietly. (S6)</li> <li>• I was asking questions more easily at school. It is not the same here (S3)</li> </ul>
	<b>2.4. MEB Applications</b>	<ul style="list-style-type: none"> <li>• There was no roll calling during the lesson, I did not attend the lesson, as I was bored recently. (S10)</li> <li>• Since the first semester grades would be valid and the course hours did not suit me, I did not attend the classes in the last weeks. (S2)</li> </ul>
<b>3. Systemic Problems</b>	<b>3.1. Uncertainty</b>	<ul style="list-style-type: none"> <li>• Feelings of uncertainty and inability to see ahead were challenging. Uncertainties regarding when, how and what time the lesson would be exhausting. Even the time of the lesson could not be determined one day before. At the beginning, we didn't even know on which platform would the class be held. (S3)</li> </ul>
	<b>3.2. Infrastructure (technical problems)</b>	<ul style="list-style-type: none"> <li>• I had trouble because my internet was limited. Even connecting to the system was difficult most of the time. (S8)</li> <li>• We had many problems starting the lesson. The application was sometimes throwing me or the students out during the lessons. Once, I was cut off from the system 4-5 times along the course and we wasted time until I was reconnected. Students had similar problems as well. There were even those who did not attend the class. This made me stressed. (S1)</li> </ul>

<b>4. Individual Needs</b>	<b>4.1. Need for Socialization</b>	<ul style="list-style-type: none"> <li>• I did not miss the lessons, but I really missed the school and my friends. (S2)</li> <li>• Being on the computer was enjoyable at first, but it got boring in time. (S5)</li> </ul>
	<b>4.2. Focus on the Course</b>	<ul style="list-style-type: none"> <li>• I listen to the lessons better in my home environment. My classmates who make me speak during the lessons at school, distract me. (S8)</li> <li>• I could not focus on the online lessons; the school environment makes me more organized (S7)</li> </ul>

As seen in Table 4, students experienced various problems as equality of opportunity, course process, systemic problems and individual needs. The absence of their own working environment at home caused some students to have problems. Some of the students living in low socioeconomic level regions have had difficulties because they did not have their own computers or tablets in their homes or the computers they have were inadequate. There were students who had difficulties in accessing the internet. Teachers' teaching methods have affected students' interest in distance education. Lack of specific curriculum caused students to have problems in participating in distance education. During the distance education process, some students experienced communication problems. Discontinuity and assessment and evaluation practices of MEB (The Ministry of National Education) caused some students to be absent from classes. In this process, students needed socialization in the school environment.

### 3. 4. Parents' views

In this part of the research, the data were analyzed and the views of parents on distance education were summarized. Parent opinions are grouped under two themes. The themes and sub-themes formed by these views are shown in tables.

Table 5. Parents' views on the distance education process applied due to COVID-19

<b>Main Themes</b>	<b>Sub-Themes</b>	<b>Views</b>
<b>1. Disadvantageous Situations</b>	<b>1.1. Lack of equipment</b>	<ul style="list-style-type: none"> <li>• There is only one computer and two students at home. It was difficult for us. I wasn't able to buy a new computer due to the economic impossibilities. (P1)</li> <li>• Our computer is and old model without microphone. We could not buy a new computer in the current conditions. (P3)</li> </ul>
	<b>1.2. Working environment</b>	<ul style="list-style-type: none"> <li>• Children do not have separate rooms at home, they had difficulties while attending lessons at the same time. (P4)</li> <li>• We changed the order at home so that children can study efficiently. One studied in the living room and one in the kitchen. (P8)</li> </ul>
	<b>1.3. Internet connection</b>	<ul style="list-style-type: none"> <li>• We did not have internet connection at home, the children connected via the internet of the phone. (P3)</li> <li>• The internet was limited at home. My child could not attend the class several times. I had to pay for additional internet connection. (P7)</li> </ul>
<b>2. Family Conditions</b>	<b>2.1. Parental roles</b>	<ul style="list-style-type: none"> <li>• I was both a mother and a teacher at home. I wish all the teachers patience. Their job is very difficult. I really felt helpless in some moments. (P9)</li> </ul>
	<b>2.2. Inter - Family Communication</b>	<ul style="list-style-type: none"> <li>• I tried to keep both my children and myself positive, but we also had conflicts. I have a daughter and a son. Since they are both in adolescence, I did not know what to do and how to approach them in some moments (P5)</li> </ul>
	<b>2.3. MEB Applications</b>	<ul style="list-style-type: none"> <li>• I relaxed a little after the lessons had started. Sometimes I overheard the lessons; I could never be a patient teacher. (P6)</li> </ul>

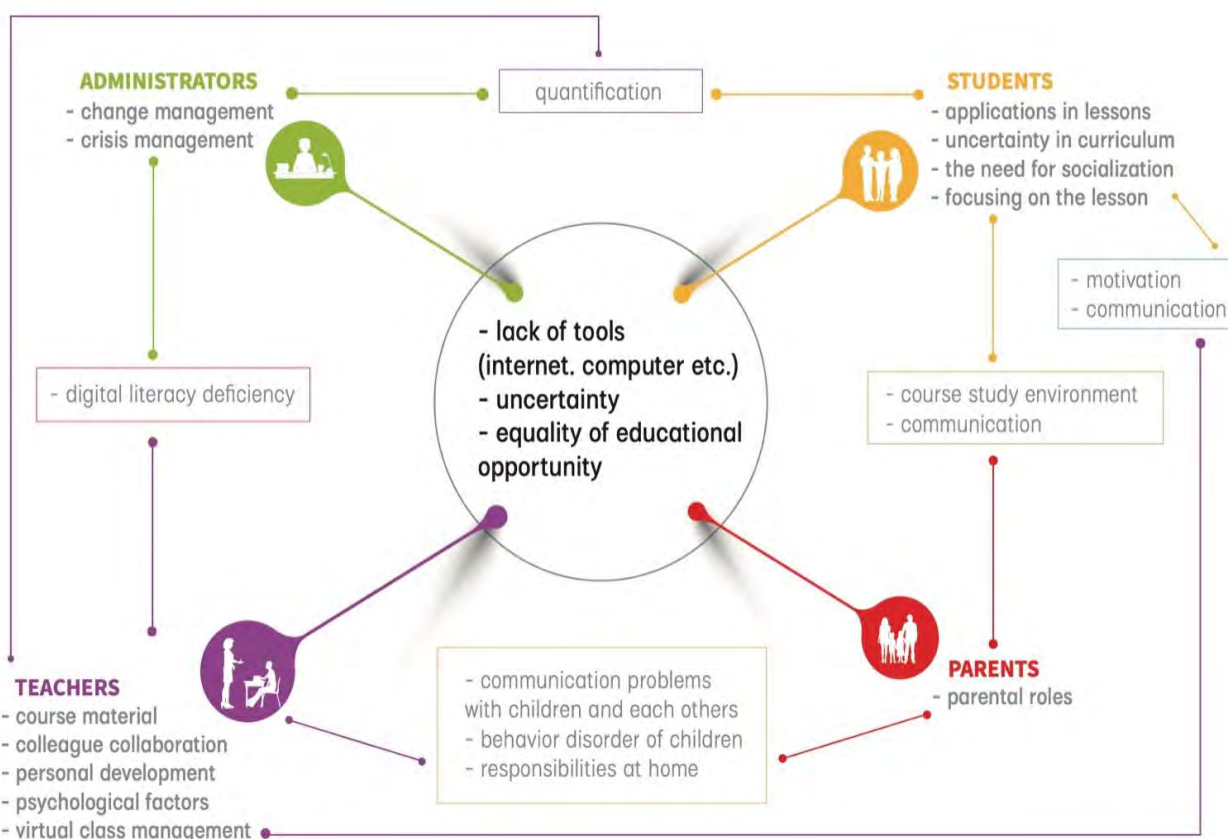
It was observed that some parents had difficulties in providing tools for their children. Parents had difficulties in creating a working environment for their children. Some families were found to have difficulties in accessing the internet. The increase in



responsibilities at home for parents has caused them difficulties. It was observed that this process had a negative impact on domestic relations and families had difficulties in dealing with these problems. Some parents emphasized that have difficulties in motivating their children to the lesson due to absenteeism and assessment and evaluation practices.

#### 4. Conclusion, Discussion and Suggestions

In this study, the opinions of school stakeholders on the distance education process carried out due to the covid-19 pandemic were examined. The results of the research and recommendations are given below.



**Figure 1.** Summary of the research

According to the results of the research summarized in Figure 1, it is understood that in the distance education process implemented due to covid-19, school stakeholders experience both common problems and problems that are specific to their own responsibilities. Especially the lack of internet and tools such as computers/tablets has

greatly affected the quality of education. Ensuring equal opportunity in education comes to the fore at this point. Although distance education creates an opportunity to ensure the sustainability of education in extraordinary conditions such as pandemics, the lack of infrastructure and equipment has adversely affected the components of education. Uncertainty in the process was voiced as a problem by the stakeholders as the planning, coordination and implementation did not turn into a quick reflex. At this point, crisis management skills were needed. The deficiencies in the digital literacy of administrators and teachers, which we can describe as internal stakeholders of the school, are again a problem in terms of the quality of education. When students were added to the internal stakeholders group, measurement and evaluation were also seen as a problem area for all internal stakeholders. Meanwhile, it was expressed as a common problem by parents and teachers that students have behavioral problems both in the education process and in the family. Teachers and families experienced communication problems and the increase in responsibilities at home caused both teachers and parents to have problems in their families. The results of the study are summarized in this way and the views of each stakeholder are discussed below.

#### *4. 1. Conclusions, Discussion and Suggestions for Administrators*

School administrators experienced problems due to the reasons such as lack of preparation for the distance education process, lack of digital literacy skills, and lack of technological equipment. It is also understood that they experienced difficulties in change management and crisis management. These results are similar to other studies. Külekçi Akyavuz & Çakın (2020) also stated that managers experience problems such as technical inadequacy, lack of information and lack of planning. Similarly, Çağlar & Kılınç (2020) emphasized that this process negatively affects the personal and professional activities of managers. In their research, Grasp & Cut (2021) also expressed the inadequacy of infrastructure and equipment, lack of legislation, and disruptions in crisis management. It can be said that this situation arises from executive competencies and leadership qualities. In order for administrators to find solutions to the problems they encounter in such crisis moments, they can be encouraged to improve themselves by taking postgraduate education in the field of education management. In the short term, seminars and trainings on issues such as change management and crisis management can be organized by the provincial and district national education directorates to improve the competencies of administrators in the post-pandemic period.

#### *4. 2. Conclusions, Discussion and Suggestions for Teachers*

It was observed that teachers had problems in the subjects of classroom management and digital literacy. It can be said that some problems in classroom management arise from the insufficiency of digital literacy skills. The efficiency of lessons was seen to be

closely linked to digital literacy of the teacher. Students who were lectured by teachers with material diversity showed more interest in the lesson. On the contrary, teachers who did not have the necessary technological competence experienced problems in their classes. In addition, student motivation was also affected by this situation. In addition to these results, it has been concluded that teachers' home responsibilities during distance education and the problems they experience as a parent wear them out, they are psychologically worn out while struggling with uncertainty, and they experience communication conflicts with parents and students on platforms such as WhatsApp. At this point, the results of the research show parallelism with the other research results in the literature. In the researches, (Balaman & Hanbay Tiryaki, 2021; Bergson-Shilcock, 2020; Çakın & Külekçi Akyavuz, 2020; Erkoca, 2021; Fidan, 2020; Gezer & Durdu, 2020; Hebebcı, Bertiz & Alan, 2020; Özdoğan & Berkant, 2020; Ölmez Ceylan, 2021b; Kavuk and Demirtaş, 2021) problems such as communication problems with students and parents, problems caused by student behavior during live lessons, problems caused by students and parents not being able to use technological tools, lack of internet in students' homes, connection problems in distance education, lack of computer and digital literacy, lack of assessment and evaluation, inability to control homework, unsuitable working environments at home, and excessive involvement of parents in the teaching process were mentioned.

In-service training support should be provided to teachers in order to increase their digital literacy competences. At schools, teams can be formed under the leadership of IT teachers to develop the skills necessary for distance education and support peer collaboration. These teams can develop practices and strategies appropriate to the conditions of the school in question. In addition, determining and formalizing the rules to be followed in live lessons can be beneficial for both teachers and students. Lessons can be taught more effectively with the preparation of an interactive lesson material pool by the ministry to be used in distance education.

It is observed that some teachers experience difficulties due to the lack of internet and technological equipment and this situation negatively affects their psychology. Accordingly, the Ministry of National Education can provide the necessary technological equipment to teachers, campaigns can be organized for teachers to be able to access these products in line with their purchasing powers, and tax reduction can be made.

#### *4. 3. Conclusions, Discussion and Suggestions for Students*

It is seen that students' views on distance education mostly focus on problems. In this respect, the research is compatible with Kara (2020)'s finding which states that students express themselves with emotions such as restless, worried and sad in this process.

Students without internet access and the necessary technological devices had problems in participating in distance education. This is one of the problems frequently mentioned in other studies. The technical problems experienced by the students (Gewin, 2020; Taşar, 2021; Özdoğan & Berkant, 2020), experiencing class attendance problems due to technological impossibilities (Arslan & Şumuer, 2020; Doğan & Koçak, 2020; Fidan, 2020; Hebebe, Bertiz & Alan, 2020; Taşar, 2021; Giannini & Lewis, 2020; Harris (2020); Kavuk & Demirtaş, 2021; Metcalfe & Perez (2020); Toprakci et al., 2021) and lack of infrastructure are the most frequently mentioned problems in distance education.

Internet and equipment support should be provided to disadvantaged students via the necessary measures to be taken in order to ensure equal opportunities in education. In this context, the producers of such products can be encouraged to provide grants to those in need within the framework of social responsibility. It was observed that the course participation and assessment-evaluation practices negatively affected the students' follow-up. Determination of course participation and assessment-evaluation practices within the framework of certain regulations will increase students' attendance to lessons in the future distance education processes. It was concluded that some students were bored while waiting for the rest of the class and regard this as waste of time, while others had difficulty catching up with the speed of the lesson, and therefore did not attend the lessons. At this point, in order to maintain participation in distance education, modules can be created for students to follow the courses according to their own levels. Lack of working environment of students negatively affected the follow-up and efficiency of the courses. Therefore, parents should be directed to provide students with a working environment. It was observed that students felt the need to socialize. Distance education can be enriched by the development of activity-based applications and methods that enable the socialization of students (in fields such as painting, sports, music, etc.).

#### *4. 4. Conclusions, Discussion and Suggestions for Parents*

It is observed that parents have communication problems and behavioral problems with their children in this process. This finding seems to coincide with the finding in the study of Altunel and Özoğul (2020) which states that the anxiety of parents increase as their responsibilities increase. Similarly, UNESCO (2020) has announced that parents face different challenges during the pandemic.

In this context, special seminars for parents on the development characteristics of children can be organized, and parenting schools can be opened. School guidance services can organize webinars within the framework of a specific program, taking into account the working hours of the parents. It is seen that some parents experience problems due to lack of both internet and technological equipment. In the studies supporting this finding in the literature, it has been revealed that parents have difficulties in providing the

technological infrastructure (Okatan & Tagay, 2021; Saltuk & Erciyes, 2020; Yılmaz, Güner, Mutlu, Doğanay & Yılmaz, 2020) and that inequalities in access to communication technologies cause learning inequality among students (Bennett, Uink and Cross, 2020). Accordingly, the Ministry of National Education can provide the necessary technological equipment to families in need, campaigns for parents can be organized, and tax reductions can be made.

#### *4. 5. Suggestions for Practitioners and Researchers*

Policy makers can work on possible scenarios in order to be prepared for possible crisis such as the Covid-19 pandemic. Similar research can be done in schools of different levels and types. Distance education experiences of private and public schools during the Covid-19 pandemic process can be compared. Distance education experiences of several countries and Turkey during the Covid-19 pandemic process can be compared. Researches on distance education applied in the Covid-19 pandemic process in developing and developed countries can be conducted.

#### **Acknowledgements**

Part of this study was presented as a verbal presentation at the Sixth International Conference on Lifelong Education and Leadership for All-ICLEL 2020 held in Sakarya, Turkey on 16–18 July 2020.

## References

- Altıparmak, M., Kurt, İ. D., & Kapıdere, M. (2011). E-öğrenme ve uzaktan eğitimde açık kaynak kodlu öğrenme yönetim sistemleri. *XI. Akademik Bilişim Kongresi*.
- Altunel, M. ve Özoğul, E. T. (2020, July 07). 5 soru: Koronavirüs salgınında veliler <https://www.setav.org/5-soru-koronavirus-salgininda-veliler/>
- Akyavuz Külekçi, E., & Çakın, M. (2020). Covid-19 salgınının eğitime etkisi konusunda okul yöneticilerinin görüşleri. *Electronic Turkish Studies*, 15(4).
- Angoletto, R., & Queiroz, V. C. (2020). COVID-19 and the challenges in education. *The Centro de Estudos Sociedade e Tecnologia (CEST)*, 5(2), 1-2.
- Arslan, Y., & Şumuer, E. (2020). Classroom Management Problems Encountered By Teachers In Virtual Classes During Covid-19 Pandemic. *Milli Eğitim*, 201-230.
- Balaman, F., Hanbay Tiryaki, S . (2021). Corona virüs (covid-19) nedeniyle mecburi yürütülen uzaktan eğitim hakkında öğretmen görüşleri. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 10(1), 52-84.
- Bennett, R., Uink, B., & Cross, S. (2020). Beyond the Social: Cumulative implications of COVID-19 for first nations university students in Australia. *Social Sciences & Humanities Open*, 2 (1), 100083.
- Bergson Shilcock, A. (2020, June 24). Covid-19 shines a spotlight on digital skills: Updates and key questions for advocates and policymakers. National Skill Coalition. Erişim: <https://nationalskillscoalition.org/news/blog/covid-19-shines-a-spotlight-on-digital-skills-updates-and-key-questions-for-advocates-and-policymakers>.
- Bozkurt, A. (2017). Türkiye’de uzaktan eğitimin dünü, bugünü ve yarını. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 3(2), 85-124.
- Bülbül, T. (2018). Kaos Kuramı. K. Demir ve K. Yılmaz (Edt.), *Yönetim ve eğitim yönetimi kuramları* içinde (s.473-487). Pegem Akademi.
- Çağlar, Ç., & Kılınç, A. (2020). Okul yöneticilerinin uzaktan eğitime ilişkin görüşlerinin incelenmesi. *Akademik Sosyal Araştırmalar Dergisi*, 8 (110), Doi Number: <http://dx.doi.org/10.29228/ASOS.46481>
- Çakın, M. & Külekçi Akyavuz, E. (2020). Covid-19 süreci ve eğitime yansımaları: öğretmen görüşlerinin incelenmesi . *International Journal of Social Sciences and Education Research*, 6 (2) , 165-186 . DOI: 10.24289/ijsser.747901
- Doğan, S., & Koçak, E. (2020). EBA sistemi bağlamında uzaktan eğitim faaliyetleri üzerine bir inceleme. *Ekonomi ve Sosyal Araştırmalar Dergisi*, 7 (14), 110-124.
- Erkoca, M. C. (2021). Uzaktan eğitim sürecinde öğrenci ilgisi–bir çalışma. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 7(1), 148-163.
- Fidan, M. (2020). Covid-19 belirsizliğinde eğitim: ilkokulda zorunlu uzaktan eğitime ilişkin öğretmen görüşleri. *Uşak Üniversitesi Eğitim Araştırmaları Dergisi*, 6 (2), 24-43.
- Gezer, M., & Durdu, L. (2020). Eğitim Bilişim Ağı (EBA) ile ilgili tezlerin sistematik analizi. *Başkent University Journal of Education*, 7(2), 393-408.
- Gewin, V. (2020). Five tips for moving teaching online as Covid-19 takes hold. *Nature*, 580, 295-296.

- Giannini, S. & Lewis, G. S.(2020). Three ways to plan for equity during the coronavirus school closures. <http://www.education2030-africa.org/index.php/en/lien-list-actualite-gen-en/1205-three-ways-to-plan-for-equity-during-the-coronavirus-school-closures>.
- Harris, A. (2020). COVID-19–school leadership in crisis? *Journal of Professional Capital and Community*. <https://doi.org/10.1108/JPC-06-2020-0045>
- 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*, 4(4), 267-282.
- İnci Kuzu, Ç. (2020). COVID-19 pandemisi sürecinde uygulanan ilkököl uzaktan eğitim programı (EBA TV) ile ilgili veli görüşleri. *Milli Eğitim Dergisi*, 49(1), 505-527.
- Kara, Y. (2020). Pandemi sürecindeki öğrenci deneyimleri: Bakırköy ilçesi örneği. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 7(7), 165-176.
- Kavrayıcı, C., & Kesim, E. (2021). School Management during the COVID-19 Pandemic: A Qualitative Study= COVID-19 Pandemisi Sürecinde Okul Yönetimi: Nitel Bir Araştırma. *Educational Administration: Theory & Practice*, 27(1), 1005-1060.
- Kavuk, E., & Demirtaş, H. (2021). COVID-19 pandemisi sürecinde öğretmenlerin uzaktan eğitimde yaşadığı zorluklar. *E-Uluslararası Pedagoji Dergisi*, 1(1), 55-73.
- Külekcı Akyavuz, E., Çakın, M. (2020). Covid-19 salgınının eğitime etkisi konusunda okul yöneticilerinin görüşleri. *Turkish Studies*, 15(4), 723-737.
- Kottasová, I., & Isaac, L. (2020, March 04). Italy shuts all schools over coronavirus outbreak. CNN. <https://edition.cnn.com/2020/03/04/europe/italy-schools-closures-coronavirus-intl/index.html>
- Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation*. JosseyBass Publication.
- Metcalf, L. S., & Perez, I. (2020). Blinded by the unknown: A school's leader's authentic actions to support teachers and students during COVID-19 school closures. *Journal of School Administration Research and Development*, 5(S1), 49-54. <https://www.ojed.org/index.php/JSARD/article/view/2746/1222>
- MEB, Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü. (2020, Mayıs). EBA, 1.2 milyar tıklanma sayısı ile kendi rekorunu güncelledi. Milli Eğitim Bakanlığı. <https://www.meb.gov.tr/eba-12-milyar-tiklanma-sayisiyla-kendi-rekorunu-guncelledi/haber/20862/tr>
- Moore, M.G. & Kearsley, G. (2011). *Distance education: A systems view of online learning*. (3rd ed.). Belmont, CA: Wadsworth Cengage Learning.
- Organisation for Economic Co-operation and Development (OECD) (2020). *A framework to guide an education response to the COVID-19 Pandemic of 2020*. OECD Publishing, Paris, <https://doi.org/10.1787/6ae21003-en>.
- Okatan, Ö., & Tagay, Ö. (2021). İlkökök velilerinin görüşlerine göre covid-19 pandemisi. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 17(2), 309-328.
- Ölmez Ceylan, Ö. (2021a). A solution proposal to the problems experienced in distance education applied in the covid-19 process: sustainable leadership. *Current Academic Studies in Educational Sciences*, 1. Livre de Lyon.

- Ölmez Ceylan, Ö. (2021b). Sanal sınıf yönetimi: covid-19 sürecinde yürütülen uzaktan eğitim derslerinin yönetilmesine ilişkin öğretmen görüşleri. 2nd International Science, Education, Art & Technology Symposium, May 28-29, 2021.
- Özdoğan, A. Ç., & Berkant, H. G. (2020). Covid-19 pandemi dönemindeki uzaktan eğitime ilişkin paydaş görüşlerinin incelenmesi. *Milli Eğitim*, 49 (Özel Sayı 1), 13-43.
- Patton, M.Q. (2002). *Qualitative research and evaluation methods*. Sage Publications.
- Patton, M.Q. (2015). *Qualitative research and evaluation methods. Integrating theory and practice*. Sage Publications.
- Pınar, M. A. & Dönel Akgül, G. (2020). The opinions of secondary school students about giving science courses with distance education during the covid-19 pandemic. *Journal of Current Researches on Social Sciences*, 10(2), 461-486.
- Reimers, F., & Schleicher, A. (2020). *Schooling disrupted, schooling rethought: How the covid-19 pandemic is changing education*, OECD Report.  
[https://read.oecd-ilibrary.org/view/?ref=133\\_133390-1rtuknc0hi&title=Schooling-disruptedschooling-rethought-How-the-Covid-19-pandemic-is-changing-education](https://read.oecd-ilibrary.org/view/?ref=133_133390-1rtuknc0hi&title=Schooling-disruptedschooling-rethought-How-the-Covid-19-pandemic-is-changing-education)
- Saltuk, M. C., ve Erciyes, C. (2020). Okul öncesi çocuklarda teknoloji kullanımına ilişkin ebeveyn tutumlarına dair bir çalışma. *Yeni Medya Elektronik Dergisi*, 4(2), 106-120.
- Schleicher, A. (2020). *Covid-19's implications for education: Insights from education 2020 at a glance*. OECD Report. <http://www.oecd.org/termsandconditions>
- Solak, H. İ., Ütebay, G. & Yalçın, B. (2020). Uzaktan eğitim öğrencilerinin basılı ve dijital ortamdaki sınav başarılarının karşılaştırılması. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 6(1), 41-52.
- Sözen, N. (2020). Covid 19 sürecinde uzaktan eğitim uygulamaları üzerine bir inceleme. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi* , 7(12), 302-319.
- Taşar, H. H. (2020). The views of the school principals about online education carried out during the covid-19 Isolation. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 22(1), 171-196.
- Toprakçı, M. S. , Hepsöğütü, Z. B. , & Toprakçı, E., (2021). the perceptions of students related to the sources of problems in distance education during the covid-19 epidemic (Example of İzmir Atatürk High School). *E-Uluslararası Pedagoji Dergisi* , 1 (2), 41-61.
- Togoh, I. (2020, March 04). Coronavirus latest: Italy shuts all schools and universities as covid-19 cases rise. Forbes.  
<https://www.forbes.com/sites/isabeltogoh/2020/06/04/coronavirus-latest-italy-shutsall-schools-and-universities-as-covid-19-cases-rise/#3160dff73c56>
- United Nations Educational, Scientific and Cultural Organization (2020). *Covid-19 educational disruption and response*. UNESCO Report.  
<https://en.unesco.org/covid19/educationresponse>.
- Yaman, B. (2021). Covid-19 Pandemisi sürecinde türkiye ve çin'de uzaktan eğitim süreç ve uygulamalarının incelenmesi. *OPUS Uluslararası Toplum Araştırmaları Dergisi, Pandemi Özel Sayısı*, 3298-3308. Doi: 10.26466/opus.857131
- Yıldırım, A., & Şimşek H. (2016). *Sosyal bilimlerde nitel araştırma yöntemleri*. Seçkin Yayıncılık.
- Yılmaz, E., Güner, B., Mutlu, H., Doğanay, G. ve Yılmaz, D. (2020). Veli algısına göre pandemi dönemi uzaktan eğitim sürecinin niteliği. Konya: Palet Yayınları.
- Yin, R.K. (2003). *Case study methods: Design and methods* (3rd. Edition). Sage Publications.