# How Did the Teachers in Turkey Cope with the Problems During the Pandemic Period?

Hasan Karaatli and Fatih Saltan

# **ABSTRACT**

The aim of this study is to explore the problems faced by secondary school teachers in distance education during the pandemic (COVID-19) period. The research has been carried out with phenomenological model which is one of the qualitative research methods aimed at determining the experiences of individuals as a result of their lives. The participants of this research consist of 15 teachers working in different branches in the 2020-2021 academic year and providing distance education during the pandemic period. Their ages range from 33 to 44. Working periods range from 8 to 21 years. Nine of the participants were female and six were male. The data obtained from the teachers participated in the study were collected using a semi-structured interview form. Content analysis showed some problems teachers faced such as low participation of the students in the lesson, insufficient equipment or lack of technical equipment, internet connection problems, low motivation among the students. It has been revealed that teachers try to overcome this situation by using messaging app, video conferencing software, email, portal of the ministry of education and video content.

Keywords: Classroom Management, Coronavirus COVID-19, Distance Education, Educational Portal, Teachers' Opinion.

Published Online: October 31, 2022

ISSN: 2736-4534

**DOI**:10.24018/ejedu.2022.3.5.469

Ministry of Education, Turkey. (e-mail: hasankaraatli@hotmail.com) F.Saltan Amasya University, Turkey.

(e-mail: fsaltan@gmail.com)

\*Corresponding Author

# I. INTRODUCTION

The world has seen hundreds of different disasters since its existence, but the disease, which was recorded as a different version of pneumonia, which was first seen in Wuhan, China on 31.12.2019, caused the beginning of another time that has never been seen before. It was announced for the first time that this disease may be a different corona virus that has not been determined in humans, and its name has entered the literature as "COVID-19" (WHO, 2020). This virus, which suddenly appeared, has brought with it many fundamental changes in the life of mankind. The emergence of negative effects in many areas has caused human life to be adversely affected. Although the health field is at the top of the most affected sectors, the field of education has been affected at least as much. According to data from UNESCO, 1 billion 646 million students in 172 countries around the world have been directly affected by this virus (UNESCO, 2020). As a result of this disease that swept the whole world, the first coronavirus patient in Turkey was announced on 11.03.2020 and a series of measures were taken to keep the disease under

In Turkey, under the leadership of the Ministry of Health, joint decisions were taken with many ministries and tried to prevent the spread of the disease. In order to minimize the impact in Turkey, as in the rest of the world, many issues such as preventing a certain age group from going out on the streets, banning public personnel from going abroad, closing public entertainment and sports halls and places that provide catering services such as restaurants, banning intercity trips. The decision was taken by the Ministry of Interior and entered into force (Ministry of Interior, 2020).

The Ministry of National Education (MEB) decided to suspend education for the first time in the second week of March, as a precautionary measure, after the first case in Turkey was seen in March. In the first stage, it was informed that the schools will start again on March 16, 2020, taking into consideration the mid-term holiday that was planned to be held in April.

EBA has taken a major role in the urgently planned works by the Ministry of National Education, and it has formed the most important part of the primary, secondary and high school education in distance education studies. EBA, which was opened for use in Turkey in 2012, has all kinds of course and teaching materials that all students and teachers can use free of charge, has been a great source of communication between teachers and students. It has become a more important site day by day by making all kinds of infrastructure developments in order to ensure that the education can continue uninterruptedly and that all students and teachers can access it without any problems. For students who do not have internet access or technological devices at home, educational broadcasts have started from television channels for primary, secondary, and high schools under the name of "EBA TV" with the support of the "Turkish Radio and Television Corporation (TRT)". Thanks to these channels, it is planned to continue education at a certain level with videos shot asynchronously in accordance with the curriculum. In this context, the training continued for 20-30 minutes at all levels from the 1st to the 12th grade. Within these programs, besides education, different activities that are entertaining were also carried out and studies were carried out to increase the motivation of the students (Basaran et al., 2020).

The great changes that started in the field of education due to the effects of this virus, which suddenly appeared all over the world, brought great difficulties for both students, parents and teachers. Although the distance education model, which is not very common in our country, is seen as an alternative system, it has had to become a main structure later on. The development of this different structure in itself has caused students and teachers to have difficulties in many areas such as technology, psychology and sociology. Therefore, new workloads have emerged for our teachers in different fields. In the distance education method, it is necessary to make an effort to guide students and parents in addition to situations such as understanding technology, creating the structure, and planning. Determining how all these problems that may arise during the distance education period are met by the teachers and what difficulties they face is of great importance for the distance education processes to be carried out from now on.

#### II. PROBLEM

What are the problems faced by secondary school teachers in distance education during the pandemic (COVID-19) period?

Sub-Problems:

- 1) What are the positive and negative aspects of distance education compared to face-to-face education?
- 2) What kind of problems have arisen in classroom management during distance education?
- 3) Have they had the opportunity to sufficiently benefit from the technologies that emerged during the distance education?
- 4) What problems have arisen in evaluating students as a result of the distance education period?

# III. METHOD

# A. Research Model

The phenomenology model, which is one of the qualitative research methods, was used in the study. The general structure of phenomenological research is aimed at determining the experiences of individuals as a result of their lives. The main aim is to determine personal perceptions and to make appropriate comments about them (Yıldırım & Şimşek, 2008). The general purpose of phenomenology is to name the experiences of individuals (Van Manen, 2007). Therefore, teachers' opinions were consulted in order to determine the problems that arise, and this time period was aimed to be examined from every angle.

#### B. Study Group

In phenomenological studies, it is stated that there should not be a fixed number for the number of participants, but in such studies, it is recommended to keep the preferred group for the sample limited, not too large, in order to achieve the goal in such studies that the interviews are not short and sometimes they can be interviewed several times (Yıldırım & Şimsek, 2013). In addition, the individuals participating in this study were selected using the convenient sampling method since it was a pandemic period. The aim is to reach the result of the research more effectively and quickly. Therefore, the participants of this research consist of 15 teachers working in different branches in the 2020-2021 academic year and providing distance education during the pandemic period. Participants were selected on a voluntary basis. 9 of the participants were female and 6 were male. Their ages range from 33 to 44. Working periods range from 8 to 21 years.

#### C. Data Collection

While collecting data in the study, it was obtained by using the "interview method", one of the qualitative data collection methods. In this context, in the second half of the 2020-2021 academic year, due to the effect of the pandemic, interviews were held with the participants with the help of a video conference program (Zoom). Interviews with some participants were made using the telephone. Participants were informed about the research in advance and interviews were made by making an appointment. In the interviews, data were collected using a "semi-structured interview form." In the first part of this form, questions were asked about the demographic characteristics of the teachers, and in the second part, questions about the difficulties they faced during the pandemic period.

# D. Analysis of Data

The data obtained at the end of the interviews were recorded separately for each participant and turned into documents. Content analysis techniques of these data were used. In content analysis, it is explained as a technique of creating codes by using words or phrases that can express the content of the information obtained about the event (Yıldırım & Şimşek, 2013).

#### IV. RESULTS

# A. What Are the Positive and Negative Aspects of Distance Education Compared to Face-to-Face Education?

According to the findings, it is seen that the teachers (f=15)who participated in the research before the pandemic period did not give any lessons before, and only one teacher took lessons using the distance education method. During the distance education period, there were certain situations that could be seen as both positive and negative in terms of the systems and students in which the participants provided education. In order to determine these situations, the participants were asked about the positive and negative aspects of lecturing in the distance education process, and the themes and codes consisting of their answers are given in

When Table I is examined, it is seen that the teachers participating in the study have many positive and negative views of distance education.

TABLE I: POSITIVE AND NEGATIVE ASPECTS OF TEACHING IN THE

Theme	DISTANCE EDUCATION  Codes	(f)
	Use of Digital Materials	9
Positives	No place and time restrictions	5
	Class Control	3
	Offering the Opportunity Again	3
	Time convenience-saving	4
	Reducing the spread of the virus	5
	Ease of Application	5
	Inequality of Opportunity	9
Negative aspects	Internet and connection problems	7
	Eye contact, lack of communication	6
	Hardware Deficiencies	5
	Evaluation is unreliable	4
	low motivation	3
	The question of whether he is listening	2
	Low participation	2

When the positive aspects were examined, they stated that the use of digital materials (f=8), the absence of time and place restrictions (f=5), the opportunity to repeat (f=3) are the benefits for the students. Classroom control (f=3), time saving (f=4), and ease of practice (f=5) are stated as aspects that make teachers' work easier. Some of the positive aspects of the participants' opinions are given below.

S2: "We were able to make the lesson more efficient by using web-based applications more actively with the students."

S3: "I was able to benefit more because it was easier to access digital materials, videos, e-books while teaching the lessons."

According to Table I, when the negative aspects are examined, it is seen that the inequality of opportunity (f=9) is clearly emphasized by the participants. Internet and connection problems (f=7) and hardware deficiencies (f=5) show their ideas in terms of the technological dimension of the business. Unreliable assessment (f=4), low motivation (f=3), the problem of listening or not (f=2), low participation (f=2) seems to be other situations that the participants stated as other negative aspects. Some excerpts from the opinions on the negative aspects are given below.

S1: "For our physical education and sports lessons, the concepts of physical activity with classes, being outdoors, group, team sports and cooperation are not acquired..."

S2: "In fact, it was a big problem that everyone could not get the desired education under equal conditions."

S3: "Due to eye contact and control problems with the student, internet disconnections, the stories were left in the air, and there was a low motivation."

# B. What Kind of Problems Have Arisen in Classroom Management During Distance Education?

In the distance education process, the subject of classroom management, especially the participation of the students in the lesson, has been an important evaluation issue. While evaluation processes can be done with different applications used in undergraduate and graduate fields, this has become a problem for primary and secondary education. The themes and codes that our participants encountered during the evaluation process are given in Table II.

According to Table II, insufficient participation (f=10) is one of the most common situations faced by secondary school teachers while making evaluations in the distance education

system. The fact that the students were not willing enough in front of the screen was effective in motivation (f=6). Lack of eye contact and difficulty in communication (f=4) are another remarkable condition. It is seen that the inadequacy (f=4) of the applications to be used in the evaluation phase is effective. The situations encountered in the evaluation of the applied courses (f=5) were stated by the participants. Excerpts from the participants' opinions on evaluation are given below.

S1: "We had evaluation problems because we could not make eye contact with our students and were able to do limited work in applied education."

S5: "The problem was minimal for the students who followed the course constantly and took responsibility for learning. However, there were problems in the evaluation of students with low motivation."

S6: "Since my course is visual arts, I should be able to see the work of the students step by step, but I could not make adequate assessments due to insufficient equipment and constantly closed cameras."

TABLE II: THEME AND CODES OF THE PROBLEM

Theme	Codes	(f)
и	Insufficient Participation	10
	Motivation	6
atic	Eye contact - Communication	4
Svaluatior	feedback	5
埡	Inadequacy of Applications	4
	Evaluation of applied courses	5

C. Have They Had the Opportunity to Sufficiently Benefit from the Technologies that Emerged during the Distance Education?

During the pandemic period, teachers encountered many different technologies and tried to improve themselves in a short time to use these tools that they had not used before. The themes and codes about which tools our participants used during this period and how efficient-successful they were with these tools are given in Table III.

When we asked our question about whether our secondary school teachers were efficient during the pandemic process, 6 of our participants answered "Yes", 4 of us answered "No", and 5 of us answered "Partially". Some of the quotes from the answers given by our participants about productivity are as follows.

S15: "I think that I can teach effectively and efficiently in the distance education process."

S14: "This process has many positive aspects rather than stopping it completely. I don't think I can be as effectiveefficient as face-to-face training."

TABLE III: EFFICIENCY-SUCCESSFULNESS

TIBEE III, ETTICLETOT GOODEST CETTESS				
Theme	Codes	(f)		
75	Yes	6		
Yield	No	4		
>	Partially	5		
es	EBA	7		
logi.	Zoom	7		
[oui	WhatsApp	6		
55	Web 2.0 Tools	4		
Used technologies	E-mail	3		
Us	YouTube	3		

When we asked our question about whether our secondary school teachers were efficient during the pandemic process, 6 of our participants answered "Yes", 4 of us answered "No", and 5 of us answered "Partially". Some of the quotes from the answers given by our participants about productivity are as follows.

S15: "I think that I can teach effectively and efficiently in the distance education process."

S14: "This process has many positive aspects rather than stopping it completely. I don't think I can be as effectiveefficient as face-to-face training."

When we ask our participants about the technologies they use, EBA (f=7) and Zoom program (f=7) come first. In the academic year, which started by taking the necessary measures by the Ministry of National Education, the Zoom program was added to the EBA, and the "Live Lesson" system was started (YEĞİTEK, 2020). In terms of communicating, WhatsApp (f=6) and E-mail (f=3) answers were received from our participants. It is seen that there are different Web 2.0 application sites (f=4) used in the course contents and YouTube (f=3) site which is especially preferred for watching videos. Excerpts of our participants' views on the technologies they use are given below.

S14: "I communicated with parents and students through the free messaging app (WhatsApp)."

S13: "We preferred the e-mail method for my students to send me their work."

S10: "I used EBA contents (video, tests), Zoom program, WhatsApp application."

#### V. DISCUSSION AND CONCLUSION

COVID19 pandemic period, schools were closed in Turkey to prevent the spread of the virus and the distance education system was started. From March to June of 2020, emergency distance education activities continued rapidly. For the 2020-2021 academic year, plans were made and distance education-teaching activities at certain grade levels were replanned. In this study, it was aimed to determine the problems that secondary school teachers faced during this pandemic period, and the results were discussed with other research results from the literature.

Although it is clearly emphasized that there is no better system for teachers than face-to- face education, it is known that it is the most suitable option for compulsory situations where face-to -face education is impossible. In their study, Emin and Altunel (2021) stated that the system necessary for the rapid regulation of the current situation in Turkey and the sustainability of education during the pandemic period is distance education. In addition, it was emphasized that distance education was as effective as face-to-face education.

When we look at distance education from the point of view of secondary school teachers and students during the pandemic period, it is seen that it has negative aspects as well as positive aspects. The codes that teachers see as positive were examined under seven headings. In order to minimize the effect of this deadly virus, which affected the whole world during the pandemic period, the distance education system was rapidly adopted in the field of education. Although it is undesirable for teachers, we see in many studies (Balaman, 2021; Bakırcı et al., 2021) that it is of great importance for the continuity of education. They stated that the use of digital materials is of great importance in terms of appealing to all senses of the students, and that the course can provide effective learning in terms of all practical or theoretical lessons. They stated that they were able to give the students what they wanted to be told easily with different applications by going beyond the lecture method used in the course content, and this situation is expressed as one of the biggest differences between distance education and face-to-face education according to Stauffer (2020). He explained that digital resources that can appeal to different sensory organs also increase the efficiency of learning. In his study on the effectiveness of distance education applications, Kılınç (2015) said that digital materials that allow more use affect permanent learning.

The fact that it does not have time and place restrictions and offers unlimited repetition opportunities is another important positive aspect of distance education in the research. Teachers stated that recording the live lessons given during the pandemic period and watching them again later affected the learning of the students positively. In addition, they said that unlimited use and repetition of digital resources given on the internet have positive reflections. It is stated that it is a great convenience for students and teachers to attend the lesson from wherever they want, within the possibilities they have, without space problems. It is known that being independent of the place draws attention as one of the most important conveniences of distance education, provides access to a wide audience and minimizes costs (Kılınç, 2015).

While one of the most basic problems in face-to-face education is classroom control, this situation is seen as a positive situation in the distance education system. Teachers said that they were able to prevent unnecessary noise in the live lesson by giving them the right to speak in the lesson from the EBA live lesson application and Zoom programs they used. The information given by Bülbül (2020) about the importance of classroom management in the virtual environment in his study "Management of Virtual Classrooms" and what the teachers said overlap. According to Bülbül (2020), classroom management is a situation that requires special attention for teachers. It is also a great fact that the ease of the applications used provides great convenience in terms of transferring the content of the course.

The problems faced by teachers in the distance education system during the pandemic period are grouped under seven headings. The most important one among these is inequality of opportunity. According to the teachers, the students who do not have sufficient economic level are left out of the distance education system and have to spend a great time in their education life without getting education. It is also stated that there are many different reasons behind this situation. Some of those; They are different situations such as insufficient internet quotas, high number of siblings to take live lessons at home, insufficient equipment and technological tools at hand, and continuous disconnection. It is seen that the data obtained in the studies of Bakırcı et al. (2021), Balaban (2021), Duman (2021) and Alper (2020) on this subject are similar to the results mentioned above.

Pandemic and the closure of schools has been a difficult situation for students and parents to accept. Many students

were unable to embrace distance education and either reluctantly attended or did not attend classes at all. It shows that the participation is at a very low level due to certain reasons such as the absence of attendance obligation, economic effects, inadequacy of the infrastructure. In addition, it is also stated that the participating students can get bored more quickly and engage in other work than listening to the lecture because they are constantly in front of electronic devices. It is stated that the long time spent in front of the screen daily also causes low motivation and distraction for students. According to the study of Kılınç (2015), the explanation about motivation is one of the most important steps of distance education and if it is not carried out in an appropriate structure, the statements about the work can do more harm than good support the opinions of the teachers. It is seen that the data obtained in the research of Özdoğan and Berkant (2020) aimed at "Examination of Stakeholder Views on Distance Education in the COVID-19 Pandemic Period" and the views in this research overlap with each other.

There are different applications in terms of evaluation in distance education systems. At the end of some trainings, assessments can be made face-to-face, while in others, exams can be made remotely within certain practices and rules. Evaluations that can be made at the secondary school level emerge as a situation that cannot be clearly expressed by teachers. It was determined as six different sub-codes, such as low participation, unwillingness of students, inability to establish appropriate communication and not receiving feedback, inadequacy of available applications, and even the difference in evaluations in theoretical and practical courses. The fact that there are not enough tools in the system for the students to take the exam and that the evaluation in the course is not appropriate has made it very difficult for the teachers to give grades. In addition, it was stated that the evaluation of applied (painting, music, physical) lessons is more difficult from a distance. Certain exam systems can be tried on the EBA website, but there is no suitable control structure for the exams that can be made to give grades. Metin et al. (2021) stated in their research that teachers have problems in evaluating students in the distance education system and supports the teachers in the research.

Most of the teachers who participated in this research stated that they were able to teach effectively during the distance education period, albeit partially. It was especially stated that this situation differs in terms of theoretical and applied course teachers. In most of the studies in the literature, teachers stated that distance education can be productive for them. They stated that this is due to their effective use of many structures such as different technologies, videos, slides, and web 2.0 tools. They also stated that they solved the bond between students, teachers, and parents in communication by using certain messaging tools. It is seen that similar results were obtained in the studies of Alper (2020) and Bakırcı et al. (2021).

Approximately seventy percent of the teachers participating in the research argue that teachers should have in -service training on certain subjects such as distance education, preparing course materials, and effective classroom management. They say that the priority is to train teachers in order to continue smoothly in the distance education system, which will be continued urgently from now on. In the study prepared by Emin and Altunel (2021), the importance of what teachers will receive in terms of selfdevelopment was also emphasized.

During the pandemic period, teachers, students, and parents entered a different education system. Although they try to get used to this system quickly, it is a difficult period for all stakeholders of education. Teachers spend a very tiring time in terms of both the functioning of the system and the necessary communication. In this study, it is desired to briefly state the difficulties they experienced during this period.

#### ACKNOWLEDGMENT

This article is compiled from a non-thesis master's project conducted at Amasya University by the authors.

# CONFLICT OF INTEREST

Authors declare that they do not have any conflict of interest.

#### REFERENCES

- Aktay S. & Keskin T. (2016) Eğitim Bilişim Ağı (EBA) İncelemesi, Eğitim Kuram ve Uygulama Araştırmaları Dergisi, 03, 27–44. Turkish.
- Alper A. (2020). Pandemi Sürecinde K-12 Düzeyinde Uzaktan Eğitim: Durum Çalışması. Milli Eğitim, 49(1), 45-67. Turkish.
- Bakırcı H. Özcan Ö. & Kara Y. (2021). Salgın Döneminde Ortaokul Öğretmenlerinin Uzaktan Eğitime Yönelik Görüşlerinin Belirlenmesi. Fen, Matematik, Girişimcilik ve Teknoloji Eğitim Dergisi, 155-170. Turkish
- Balaman F. (2021). Corana Virüs (Covid-19) Nedeniyle Mecburi Yürütülen Uzaktan Eğitim Hakkında Öğretmen Görüşleri. İnsan ve Toplum Bilimleri Araştırmaları Dergisi, 10(1), 52-84. Turkish.
- Başaran, M., Doğan, E., Karaoğlu, E., & Şahin, E. (2020). Koronavirüs (Covid-19) pandemi sürecinin getirisi olan uzaktan eğitimin etkililiği üzerine bir çalışma. Academia Eğitim Araştırmaları Dergisi, 368–397. Turkish.
- Bozkurt, A. (2016). Bağlantıcı kitlesel açık çevrimiçi derslerde etkileşim örüntüleri ve öğreten öğrenen rollerinin belirlenmesi. (Yayınlanmış 432498) [Doktora Tezi, Anadolu Üniversitesi, Sosval Bilimler Enstitüsü], Uzaktan Eğitim Anabilim Dalı. Eskişehir. Turkish.
- Bozkurt, A. (2017). Türkiye'de uzaktan eğitimin dünü, bugünü ve yarını. Açıköğretim Uygulamaları ve Araştırmaları Dergisi, (2), 85-124. Turkish.
- Bozkurt, A. (2017). Türkiye'de uzaktan eğitimin dünü, bugünü ve yarını. Açık Öğretim Uygulamaları ve Araştırmaları Dergisi (AUAd), 3(2), 85-124. Turkish.
- Bülbül T. (2020). Sanal Sınıfların Yönetimi. Rumeli Köprüsü, 2, 20–27. Turkish. (20.06.2021)https://oryantasyon.trakya.edu.tr/assets/tb 4.pdf adresinden erişildi.
- Çoban, Serhat (2013). Uzaktan ve Teknoloji Destekli Eğitimin Gelişimi, İstanbul: XVI. Türkiye'de İnternet Konferansı Bildiri Kitabı. Turkish.
- Duman S. (2020). Salgın Döneminde Gerçekleştirilen Uzaktan Eğitim Sürecinin Değerlendirilmesi. Milli Eğitim, 49(1), 95–112. Turkish.
- Elitaş, T. (2017). Uzaktan Eğitim Lisans Sürecinde Yeni İletişim Teknolojileri: Atatürk Üniversitesi Uzaktan Eğitim Merkezi. (Yayınlanmamış 464387) [Doktora Tezi. İstanbul: Üniversitesi], SBE. Turkish.
- Emin, M. & Altunel M. (2021). Koronavirüs Sürecinde Türkiye'nin Uzaktan Eğitim Deneyimi. İstanbul: Turkuvaz Haberleşme ve Yayıncılık A.Ş. Turkish.
- Ertürk S. (1984). Eğitimde Program Geliştirme. Ankara: Yelkentepe Yayınları. Turkish.
- Gelişli Y. (2015). Uzaktan Eğitimde Öğretmen Yetiştirme Uygulamaları: Tarihçe Ve Gelişim. Eğitim ve Öğretim Araştırmaları Dergisi, 313-321. Turkish
- Gökçe, A. T. (2008). Küreselleşme sürecinde uzaktan eğitim. D.Ü. Ziya Gökalp Eğitim Fakültesi Dergisi, 2. Turkish.
- Işık M. (2021) Teknoloji Bağlamında Eğitimde Fırsat Eşitsizliği: Eğitime Erişime Yönelik Sorunlar ve Çözüm Önerileri. Ahi Evran Üniversitesi

- Sosyal Bilimler Enstitüsü Dergisi, 498–517. Turkish.
- İnce F. & Evcil F. (2020) Covid-19'un Türkiye'deki İlk Üç Haftası:Sdü Bilimleri Dergisi, 11(2). 236-241. Turkish. (https://dergipark.org.tr/tr/download/article-file/1147765)
- İşman, A. (2008). Uzaktan Eğitim. Ankara: Pegem A. Yayıncılık. Turkish. İşman, A. (2011). Uzaktan eğitim tanımı. A. İşman içinde, Uzaktan Eğitim (s. 5-6). Manisa: Pegem Akademi. Turkish.
- Kaya Z. (2006). Öğretim Teknolojileri ve Materyal Geliştirme. Ankara: Pegem A. Yayıncılık. Turkish.
- Kaya, Z. (2002). *Uzaktan Eğitim*. Ankara: Pegem A. Yayıncılık. Turkish.
- Kılınç, M. (2015). Uzaktan eğitim uygulamalarının etkililiği üzerine bir araştırma (İnönü üniversitesi uzaktan eğitim merkezi ilahiyat lisans tamamlama programı örneği). [Yayımlanmamış doktora tezi, İnönü Üniversitesi, Malatya]. Turkish.
- Kırık, A. M. (2014). Uzaktan Eğitimin Tarihsel Gelişimi ve Türkiye'deki Durumu. Marmara İletişim Dergisi. 21, 73–94. Turkish.
- Koşar, E. (2005). Uzaktan Eğitim", Öğretim Teknolojileri ve materyal Geliştirme, Öğreti. Pegem A Yayınları, Ankara, 133. Turkish.
- Metin M., Gürbey S., & Çevik A. (2021). Covid-19 Pandemi Sürecinde Uzaktan Eğitime Yönelik Öğretmen Görüşleri. Uluslararası eğitim Bilimleri Dergisi, 66-89. Turkish.
- Milli Eğitim Bakanlığı (12 Mart 2020). https://www.meb.gov.tr/bakanselcuk-koronaviruse-karsi-egitim-alaninda-alinan-tedbirleriacikladi/haber/20497/tr adresinden alınmıştır. Turkish.
- Moore, M. & Kearsley, G. (2005). Distance Education: A System View. Canada: Wadsworth.
- Özalkan, G. Ş. (2021). Uzaktan eğitimde ölçme ve değerlendirme: Pandemi sürecinde sosyal bilimler eğitimini yeniden düşünmek. International Journal of Economics Administrative and Social Sciences, 18-26. Turkish.
- Özbay Ö. (2015). Dünyada Ve Türkiye'de Uzaktan Eğitimin Güncel Durumu, Ines Journal, 376-394, Turkish,
- Özen, F. ve Hendekçi, E. A. (2016). Türkiye'de Eğitim Denetimi Alanında 2005-2015 Yılları Arasında Yayımlanan Makale ve Tezlerin Betimsel Analizi. OPUS - Uluslararası Toplum Araştırmaları Dergisi, 6(11), 619-650. Turkish.
- Pınar, A., 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, 461-486, Turkish.
- Stauffer, B. (2020). What's the difference between online learning and learning? The distance Applied Education System. https://www.aeseducation.com/blog/online-learning-vsdistancelearning
- İçişleri Bakanlığı, (2020) https://www.icisleri.gov.tr/koronavirussalgini-yeni-tedbirler 15 Haziran 2021 tarihide erişim sağlanmıştır. Turkish.
- T.C Sağlık Bakanlığı Covid-19 Rehberi, 30 Haziran 2020 tarihinde https://covid19.saglik.gov.tr/TR-66301/covid-19-rehberi.html adresinden erişildi. Turkish.
- Telli Yamamoto, G. & Altun, D. (2020). Coronavirüs ve çevrimiçi (online) eğitimin önlenemeyen yükselişi. Üniversite Araştırmaları Dergisi, 25-Turkish.
- Tian, H., Liu, Y., Li, Y., Wu, C.-H., Chen, B., Moritz, U. G. K., Dye, C. (2020). An investigation of transmission control measures during the first 50 days of the COVID-19 epidemic in China. Science, 10.1126/sc,  $1-13.\ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7164389/$
- UNESCO, (2020).25.05.2021 tarihinde https://en.unesco.org/covid19/educationresponse adresinden erişildi.
- Uşun, S. (2006). Uzaktan Eğitim. Ankara: Nobel Yayıncılık. Turkish.
- Van Manen, M. (2007). Phenomenology of practice. Phenomenology & Practice. 1(1), 11-30. https://doi.org/10.29173/pandpr19803.
- WHO, (2020a) Director-General's opening remarks at the media briefing on COVID-19-11 March 2020. 20.05.2021 tarihinde https://www.who.int/director-general/speeches/detail/who-directorgeneral-s-opening-remarks-at-the-media-briefing-on-covid-19---11march-2020 adresinden erişildi.
- WHO, (2020b) Coronavirus disease (COVID-19), 20.05.2021 tarihinde https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19 - adresinden erisildi.
- Willis, B. (1993). Distance Education: A Practical Guide. Englewood Cliffs, NJ: Educational Technology Publications.
- Yalın H.İ., (2001). Öğretim Teknolojileri ve Materyal Geliştirme, Ankara: Nobel Yayın Dağıtım. Turkish.
- Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü (YEĞİTEK). (2020). EBA kullanım sınıf saatlerinde https://yegitek.meb.gov.tr/www/eba-vecanli-sinif-kullanimsaatlerinde-artis/icerik/3041 adresinden 20 Haziran 2021 tarihinde erişilmiştir. Turkish.

- Yıldırım, A. ve Şimşek, H. (2013). Sosyal bilimlerde nitel araştırma yöntemleri. Ankara: Seçkin Yayıncılık. Turkish.
- Yıldırım, A. ve Şimşek, H. (2008). Sosyal Bilimlerde Araştırma Yöntemleri. Ankara: Seçkin Yayıncılık. Turkish.