

YEDİTEPE UNIVERSITY
GRADUATE SCHOOL OF EDUCATIONAL SCIENCES

**INVESTIGATION OF THE EFFECTS OF THE PANDEMIC ON
TEACHERS ACCORDING TO ONLINE TEACHER'S ROLE AND
QUALIFICATIONS**

Özge Özkoç

Istanbul - 2023



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by
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SOCIAL MEDIA EDUCATION

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DECLARATION OF ORIGINALITY

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ABSTRACT

INVESTIGATION OF THE EFFECTS OF THE PANDEMIC ON TEACHERS ACCORDING TO ONLINE TEACHER'S ROLE AND QUALIFICATIONS

This study aimed to investigate the reflections of teacher roles and competencies in online distance education on face-to-face education and hybrid education after the pandemic in the Covid-19 pandemic between 2019-2022. The condition that the teachers who have given distance education are still active in their profession after the pandemic has been kept as a condition of participation in the survey. The study consists of 350 volunteer participants reached through social media. The "Online Teacher Competencies Scale" developed by Bahattin Kavrat and Yalın Kılıç Türel in 2013 was used with questions containing demographic information using "Google Form" for teachers who are still continuing their profession in face-to-face education after the pandemic. By looking at the normality distributions of the data obtained from the study in accordance with SPSS, appropriate tests were selected for the findings section. Since the data did not show normal distribution, non-parametric tests were applied. The "Kruskal Wallis Test" and the "Kruskal Wallis Test" were used to determine whether the roles of online distance education teachers in the COVID-19 Pandemic caused a change in the survey questions examined after the pandemic and whether there was a statistically significant relationship between the scores of teachers' role and efficacy perceptions in online distance education. "Mann Whitney-U Test" was used. As a result of the research in which the results are tabulated, statistical results are given between the reflections of the online teacher competencies of teachers in online distance education in the Covid-19 pandemic on face-to-face education and hybrid education after the pandemic. In the calculations made as a result of online teacher roles and competencies in the Covid-19 pandemic, the median value of the communication score was (31) and the gap of quarters (28-34). The technical role median (22) and quartiles (18-25) were found. Social role median (12) and quartiles (10-15) were found. The median value of the pedagogical role (13) and the gap of quartiles (12-15) were found. According to the descriptive statistics results, the rate of finding online distance education and hybrid education appropriate increases as one progresses from pre-school to high school. As a result of the comparison of online teacher roles and competencies in the Covid-19 pandemic according to the survey questions;

statistically significant difference was found between the groups formed according to seniority (1-5 years and over 16 years) in terms of scores in the "Social Role" sub-dimension. A statistically significant difference was found between the groups (increasing and unchanged) formed according to time management skills in the pandemic process in terms of scores in the "Communicator Role", "Technical Role" and "Social Role" sub-dimensions. A statistically significant difference was found in terms of scores in the "Technical Role" sub-dimension between the groups (increased and unchanged) formed according to the ability to use technological resources efficiently in face-to-face education after the pandemic. In the sub-dimension of "Communicator Role" and "Pedagogical Role" and "Total Scale Score" between groups (better use and undecided) and (undecided and undecided) according to the ability to use technological tools efficiently in post-pandemic face-to-face education A statistically significant difference was found in terms of scores. A statistically significant difference was found in terms of scores in the "Social Role" sub-dimension between the groups (those who said yes and those who were undecided) formed according to the flexibility of the student who could not attend the course during the pandemic.

Keywords: Covid-19 Pandemic , Online Teacher Roles , Online Teacher Competencies , Post-Covid-19 Pandemic , Post Pandemic Education , Hybrid Education

ÖZET

ÇEVİRİMİÇİ ÖĞRETMEN ROL VE YETERLİLİKLERİNE GÖRE PANDEMİNİN ÖĞRETMENLER ÜZERİNDEKİ ETKİLERİNİN İNCELENMESİ

Bu çalışma, 2019-2022 yılları arasında Covid-19 pandemisinde çevrimiçi uzaktan eğitimde öğretmen rol ve yeterliliklerinin pandemi sonrası yüz yüze eğitime ve hibrit eğitime yansımalarını araştırmayı amaçlamıştır. Uzaktan eğitim vermiş öğretmenlerin pandemi sonrası mesleğini hala aktif yapıyor olma şartı ankete katılım koşulu olarak tutulmuştur. Çalışma sosyal medya aracılığıyla ulaşılan 350 gönüllü katılımcıdan oluşmaktadır. Pandemi sonrası mesleğini yüz yüze eğitimde hala devam ettirmekte olan öğretmenlere " Google Form " kullanılarak demografik bilgiler içeren sorular ile Bahattin Kavrat ve Yalın Kılıç Türel'in 2013 senesinde geliştirmiş olduğu " Çevrimiçi Öğretmen Yeterlilikleri Ölçeği" kullanılmıştır. Çalışmadan elde edilen veriler SPSS doğrultusunda normallik dağılımlarına bakılarak bulgular kısmı için uygun testler seçilmiştir. Veriler normal dağılım göstermediği için non-parametrik testler uygulanmıştır. COVID-19 Pandemisin de çevrimiçi uzaktan eğitim veren öğretmenlerin rollerinin pandemi sonrası incelenen anket sorularında değişikliğe neden oluşu ve çevrim içi uzaktan eğitimdeki öğretmen rol ve yeterlik algılarına yönelik puanları arasında istatistiksel olarak anlamlı bir ilişki olup olmadığının belirlenmesi amacı ile "Kruskal Wallis Testi" ve "Mann Whitney-U Testi" kullanılmıştır. Sonuçların tablollaştırıldığı araştırma sonucunda Covid-19 pandemisin de çevrimiçi uzaktan eğitimde öğretmenlerin çevrimiçi öğretmen yeterliliklerinin pandemi sonrası yüz yüze eğitime ve hibrit eğitime yansımaları arasında istatistiksel sonuçları verilmektedir. Covid-19 pandemisinde çevrimiçi öğretmen rol ve yeterlilikleri sonucu olarak yapılan hesaplamalarda iletişim puanı ortanca değeri (31) ve çeyrekler açıklığı ise (28-34) bulunmuştur.

Teknik rol ortanca değeri (22) ve çeyrekler açıklığı ise (18-25) bulunmuştur. Sosyal rol ortanca değeri (12) ve çeyrekler açıklığı ise (10-15) bulunmuştur. Pedagojik rol ortanca değeri (13) ve çeyrekler açıklığı ise (12-15) bulunmuştur. Betimsel istatistik sonuçlarına göre okul öncesinden lise kademesine doğru çıkıldıkça çevrimiçi uzaktan eğitimi ve hibrit eğitimi uygun bulma oranı artmaktadır. Covid-19 pandemisinde çevrimiçi öğretmen rol ve yeterliliklerinin anket sorularına göre karşılaştırılması sonucunda ; kıdemlere göre(1-5 yıl ile 16 yıl üzeri) oluşturulmuş gruplar arasında "Sosyal Rol" alt boyutunda puanlar

yönünden istatistiksel olarak anlamlı bir fark bulunmuştur. Pandemi sürecinde zaman yönetimi becerisine göre oluşturulmuş gruplar arasında (artanlar ve değişmeyenler) ‘‘İletişimci Rol’’ , ‘‘Teknik Rol’’ ve ‘‘Sosyal Rol’’ alt boyutunda puanlar yönünden istatistiksel olarak anlamlı bir fark bulunmuştur. Pandemi sonrası yüz yüze eğitimde teknolojik kaynakları verimli kullanabilme becerisine göre oluşturulmuş gruplar arasında (artanlar ve değişmeyenler) ‘‘Teknik Rol’’ alt boyutunda puanlar yönünden istatistiksel olarak anlamlı bir fark bulunmuştur. Pandemi sonrası yüz yüze eğitimde teknolojik araçları verimli kullanabilme becerisine göre oluşturulmuş gruplar (daha iyi kullananlar ve kararsızlar) ile (kararsızlar ile değişiklik olmayanlar) arasında ‘‘İletişimci Rol’’ ve ‘‘Pedagojik Rol’’ alt boyutunda ve ‘‘Toplam Ölçek Puanı’’ puanlar yönünden istatistiksel olarak anlamlı bir fark bulunmuştur. Pandemide derse katılamayan öğrencinin ders kaydı izleyebilmesi esnekliği görüşüne göre oluşturulmuş gruplar (evet diyenler ve kararsızlar) arasında ‘‘Sosyal Rol’’ alt boyutunda puanlar yönünden istatistiksel olarak anlamlı bir fark bulunmuştur.

Anahtar Kelimeler: Covid-19 Pandemisi , Çevrimiçi Öğretmen Roller , Çevrimiçi Öğretmen Yeterlikleri , Covid-19 Pandemisi Sonrası Eğitim , Hibrit Eğitim

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LIST OF ABBREVIATIONS

WHO	World health organization
MEB	Milli Eđitim Bakanlıđı (Ministry of Education)



1. INTRODUCTION

In this section , the problem situation of the research conducted , the problem sentence and subproblems of the research , the importance of the research , counts , limitations and definitions are given.

1.1. Background of the Study

It is seen that the virus called SARS-CoV-2, which caused a serious epidemic in 2019 all over the world and in our country, has caused a mandatory change in educational processes, as in all sectors. On December 1, 2019, it appeared in Wuhan, China and was considered the first point where the epidemic spread (Arıkan & Aytekin, 2022). The World Health Organization (WHO) declared the Covid-19 pandemic caused by SARS-CoV-2 a pandemic on March 11, 2020 (Tüzün at al Demirköse , Özkan , Dikmen , İlhan , 2020). Following the 2019-2020 year, the effects of the epidemic continued in 2021-2022 and affected education systems worldwide, causing schools and universities to close (Wikipedia, 2020b). Emphasizing that distance education is the only option, Minister of National Education Ziya Selçuk has instructed that it should be done by May 31, 2020 in order to prevent the effects of the epidemic within the scope of social distance. Thus, distance education in the epidemic process ensured the continuation of educational activities in pandemic conditions due to the fact that face-to-face education increased the epidemic. According to the decision of the Ministry of Education of Turkey on "Urgent Distance Education" an effort has been made to control the effects of the epidemic by ensuring social distancing by implementing the transition at all levels of education. Teachers from all levels, and this a large part of teachers have experienced ‘Online Distance Education‘ for the first time. In this process, teachers were able to process their lessons by maintaining social distance by turning to integrations such as Google Meet, Microsoft Teams, Zoom Video Communications, Skype, Eba, Big Blue Button, Adobe Connect for online distance education (Kristof, 2020). In fact, some plugins have been developed for teachers to use on these platforms. For example, the polling plugin, etc. as. In this study, four roles of teachers in online distance education have been named as “t”, “Technical Role”, “Social Role” and “Pedagogical Role” respectively in order to be carried out for some roles and competencies of teachers in online distance education due to the pandemic (Kavrat & Türel ,2013). It has

been necessary to evaluate the reflections of the change that these roles and competencies have created in teachers by switching to face-to-face training after the pandemic and switching to hybrid courses, if any. Currently, there are increasing curiosities that the role and qualifications of teachers from any branch of online distance education aimed at ensuring social distancing in the COVID-19 pandemic by making the teaching profession active between 2019 and 2022 have repercussions on Dec transition to face-to-face education after the pandemic by the end of the pandemic as of 2022. It is important to realize with the data that the epidemic process that we have undergone in the newly normalized process of experiencing two of them is reflected in face-to-face education and hybrid courses, if any, after the pandemic, in the role and competencies of teachers in online distance education after the pandemic.

1.2. Purpose of the Study

The general purpose of this research is to determine the relationship between the role of online distance education and related Decency levels of teachers who provide online distance education in the pandemic in 2019-2022 and their reflections on the transition to face-to-face education and, if any, hybrid education after the pandemic. Year of seniority in the profession and these teachers teach , grade levels , after face-to-face training, the harmonies , after face-to-face training, "a difference in whether it is time management skills , technological stipulated the efficient use of resources, distance education technological tools to use after the next state from the pandemic, the remote face – to-face – in hybrid model , which it is proper training for teachers to choose which to the present day, in which the training model (remote face-to-face hybrid) model of teacher educational levels as appropriate , in the opinion of the student missed the lesson so that you can record the lesson for ‘flexibility’ in terms of whether it is advantageous to determine the effects of variables such as the opinion of teachers.

1.3. The Problem Sentence of the Study

The problem statement of the study is; What are the online teacher roles and competence levels in the Covid-19 pandemic? and according to the survey questions, is there

a significant relationship between online teacher roles and competencies in the Covid-19 pandemic?

1.4. Subproblems of the Study

The aim of this research is to evaluate the relationship between the reflections of teachers who have to provide online distance education with the decision of the Ministry of National Education to reduce the epidemic in the Covid-19 Pandemic between 2019 and 2022, on face-to-face education Dec the pandemic and hybrid tutored courses, if any, due to this 'Urgent Online Process' situation where teachers who have to adapt their role and competencies in distance education in the process have to adapt to. In line with this goal, it is aimed to evaluate the demographic characteristics of teachers, the role and competencies of teachers in online distance education, the transition to face-to-face education after the pandemic, and the reflection of hybrid courses, if any, on the lessons taught. In accordance with this study, the answers to the following questions were sought;

1. Which one has the highest score among the online teaching qualifications and roles of teachers providing 'Online Distance Education' during the Covid-19 epidemic?
2. Have teachers' skills in using technological tools increased after the COVID-19 pandemic?
3. Which of the education models deemed appropriate for teachers' education levels after the pandemic is hybrid education appropriate and at what level?

1.5. Significance of the Study

When the studies were examined, it was revealed that the Covid-19 pandemic is ending and its repercussions on education after the pandemic are still being investigated. Considering that the subject may need to be investigated because it reflects the current process, it is necessary to switch to online education suddenly during the COVID-19 pandemic, and to evaluate the effects of this process on teachers due to the effects of their role and competencies in online distance education when they switch to face-to-face education after the pandemic. It has become clear that we need to think about new perspectives on education. In addition, the process to which we have been exposed has led to the emergence of some new educational paradigms and it has been thought that revisions

can be made to what should be the educational model of our new normal. One of the reasons for this research is that it can be considered which educational model can meet today's needs and which one can be applied. Evaluating the reflection of teachers' online roles and competencies in pandemic face-to-face and hybrid education after the pandemic may be one of the dissertation topics that can be examined for new research and researchers. The purposes of this study that have been made for the years 2019-2022 covid-19 pandemic in online distance education roles and competencies of online teachers in distance education given after the pandemic face-to-face and, if applicable, the process for hybrid courses reflection on the results that emerge in line with the new educational paradigm is to determine the affected points in Turkey's Online teacher roles and competencies for distance education training in an emerging pandemic in our field of direct and indirect drastic changes that affects the worry about whether there will be our new normal, or is to provide our possibility of observations with new educational paradigm.

1.6. The Propositions of the Study

The results of the research are as follows:

Participants used to collect data 'Online teacher roles and competencies for Distance Education scale' and 'between the years 2019-2022 Covid-19 Pandemic lived, and online distance education and the role of teachers have done after the pandemic face-to-face and hybrid reflections on education, gave correct answers for the scale surveys and Online teaching competencies. The teachers selected to create the sample of the study are qualified to represent the relevant group and are actively teaching during the pandemic process and are still continuing their profession after the pandemic. Research online data collection tools that were used for years 2019-2020-2021 the pandemic and competencies of distance education the role of the teacher in the process of 2022 after the pandemic face-to-face training after training to evaluate the reflections on the topic seem to reveal their current status.

1.7. Limitations of the Study

The limitations of the conducted research are as follows: This research is limited to "350 teachers Who Dec Actively Engaged in the Profession of Teachers Who Have Experienced the Covid-19 Pandemic Between 2019 and 2022 and Who Have Done Online

Distance Education Face-to-Face And, If Any, Hybrid Education After the Pandemic. Research is limited to the Covid-19 Pandemic of 2019-2022 and the post-Pandemic of 2022. The data obtained are limited to the scale used. The first case was seen in Turkey on 11 March. It was announced that primary, secondary and high school education would be suspended for one week from 16 March and that education would continue on 23 March through distance education via television and internet. On 25 March, Minister of National Education Ziya Selçuk announced at a press conference that the break in education would be extended until 30 April. On 9 April, Minister of National Education Ziya Selçuk announced that the break in education was extended until 31 May. On 18 May, President Erdoğan announced that schools, which were expected to open on 1 June, will not open and the 2019-2020 academic year will end. Erdoğan stated that the new academic year will start in September. On 8 August, Minister of National Education Ziya Selçuk announced that schools were ready to open on 31 August. On 12 August, Minister of National Education Ziya Selçuk announced at a press conference held at the Ministry that schools would open on 31 August with distance education, that face-to-face education would start gradually and in a diluted manner in the classes recommended by the Science Board as of 21 September, that the gap that might occur due to dilution would be filled through distance education, live lessons and EBA TV, and that private schools could start distance education as of 17 August. On 21 September, face-to-face education started in kindergarten and primary school 1st grades, students' attendance to face-to-face education was not compulsory, but they could attend distance education voluntarily.

1.8. Definitions of The Terms

Covid-19 Pandemic: The New Coronavirus (SARS-CoV-2) is a virus that was first identified from the results of research conducted on a group of patients who developed (fever, cough, shortness of breath) as of December 2019 in Wuhan Province of China. Subsequently, it spread all over the world and was quickly seen in 114 countries, and the World Health Organization declared a 'Pandemic' on the day of 'March 11, 2020' (Baykal, 2022).

Education After the Covid-19 Pandemic: (SARS-Cov-2) the period when the coronavirus was brought under control by reducing the effects of the outbreak and greatly increasing the

vaccination rate, that is, the 2021-2022 academic year, when schools switched to face-to-face education, is to cover the academic year.

Online Distance Education: It is an education system in which the student and the teacher communicate with a vehicle at the same time even though they are far away from each other(Özdil,1986).

Face-to-Face Education: This is the education in which students are present in the classroom simultaneously with traditional education methods during school hours. Half of the course is conducted face-to-face and the other half is conducted by distance education (Kastornova and Gerova, 2021).

Online Teacher Roles: “Communicator Role”, “Technical Role”, “Social Role” and “Pedagogical Role” respectively (Kavrat & Turel, 2013).

Online Teacher Competencies: In terms of teacher competencies, they are defined as “the knowledge, skills and insights that must be possessed in order to effectively and efficiently perform the teaching profession” (MEB, 2008). This definition can be defined as the knowledge, skills and insights that must be possessed in order to effectively and efficiently perform their profession in terms of teacher competencies in the online environment.

2. REVIEW OF THE LITERATURE

The purpose of the study in this section is to enable new research in the literature to be seen. Topics in the content ; Online distance education: definition , history and development, the Covid-19 Pandemic and pandemic in Turkey in Online distance education Covid-19 Pandemic in the world of online distance education Covid-19 pandemic in Online distance education, reasons for Covid-19 pandemic, the advantages and disadvantages of online distance education, distance education delivery models, learning management systems, Teacher Qualifications, teaching competencies Pandemic Online, hybrid, face-to-face training and education definition Covid-19 Pandemic face-to-face education after the transition to Covid-19 Pandemic and After Training Hybrid Pandemic, Pandemic, Pandemic reflections after the studies in the literature for studies in Turkey, are ranked as world studies.

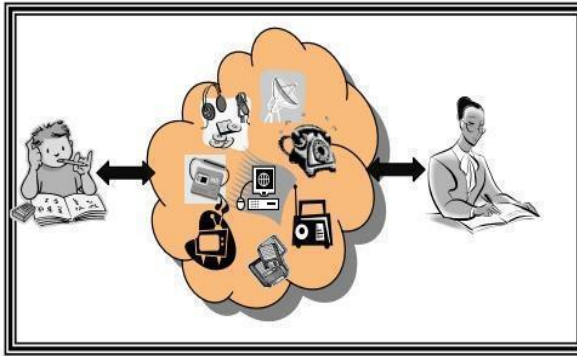
2.1. Definition , History and Development of Distance Education

There are similar definitions related to distance education. According to the Turkish Language Institute (2017), distance education is a “form of education conducted from a certain center using various means of communication between the student and the teacher face-to-face”. Distance education is one of the options that offers global education opportunities in a globalizing world. The developments of information technologies and the educators in information technologies have said that it should be adapted to our education. The first application was made by mail in 1728 and has reached this level with today's technology (İşman, 2008). According to another definition, distance education is “an education system in which a student and a teacher communicate with a vehicle at the same time or in a separate time, even though they are far from each other” (Özdil, 1986). It is a learning and teaching process that is implemented in an organized way by an organization where the teacher and the learner are not located in the same place and communication is provided through technology (Moore & Kearsley, 2012). As a short definition, it is an economic and interactive educational model that is independent of time and space and is realized by using information and communication technology tools and materials (Gökçe, 2008: 2). It allows people who cannot take advantage of traditional education to participate in the education system and work individually who cannot devote time to educational

development (Inan, 2013; Newby et al. Stepich, Lehman & Russel, 2006; OECD, 2020e; Özyürek & Bedge, 2016).

Figure 1

Visual Education for Distance Education (İşman , 2008)



Again, as with other similar definition of distance education, the learner without limitation of time and space, taking advantage of Rich Communication Technology participated in the teaching activities of printed materials, educational resources and content as accessible education system is called simultaneous or concurrent timeless and distance education (Distance Learning Glossary, 2021). Looking at the similarities in the definitions, that is, the common point is that education is called ‘Distance Education’, in which the teacher and the learner can carry out the education regardless of the location and use various learning environments in the ‘classroom’ mentality of the education they perform. If we summarize all the definitions and indeed if we look at the above definitions in the literature and we can talk about the aims of distance education as follows; it can provide access to many people, provide education by eliminating distance, reduce teaching costs, reach students quickly, speed up teaching, there are no certain effects in face-to-face education, fast learning is like a student can access the material (Yenal, 2009). Distance education appeared in the 1700s. He first started with letters whether it's your first date 20 March 1728 in the Boston Gazette, because it is considered a ‘Shorthand Lessons’ and this has been written that he would give to do with distance education (Çoban, 2013) at the age of 1833, ‘the university was established a correspondence course in America and is forced to shut down after a short time (Nizam , 2004), and there are schools still extant in Germany in 1856 fundamental thrown about distance education. "Tele College”, “Schulfernsehen”, “Fern Universitat” and "Deutsch Institut Fur Fernstudien" are the schools named after him

(Antalya, 2004). In France, by the 1930s, the CNED National Tele-Education Center was launched by private institutions and supported by the state. 158 thousand people have registered (Edanich act. Papi&Büyükaslan, 2007). Then, by the 1980's, it has developed through CD-ROM, Internet, and computer technologies along with what technology now brings. Japan's preferred distance education model is similar to that of the United Kingdom, and Canada has tried to provide a comprehensive distance education service inspired by the United States. Distance education applications in Canada are still used all over the world (Antalya, 2004). When the historical development of distance education in Turkey is examined, the opening of the "Letter Teaching Center" under the Ministry of National Education in 1961 is considered to be the first important start. distance education applications were carried out by Yay-Kur in 1975. in 1978, it was decided to establish an Open University and Anadolu University Faculty of Open Education was opened in 1981. Also in the same period, Anadolu University started its applications in distance education through television in cooperation with TRT. The Ministry of National Education (MEB) opened the Open Education High School in 1992. Currently, higher education institutions and some schools have the qualifications to carry out distance education services with their infrastructure.

2.2. Covid-19 Pandemic and Online Distance Education in Turkey

Covid-19 has affected all areas as well as negatively affected the field of education (Yamamoto and Altun, 2020). In order to control the effects of the epidemic and its deadly consequences, measures such as curfews, early closure, as well as online distance education will be the only valid way to switch to the Ministry of Education and Ministry of Health and Science Board Meetings have been finalized and implemented as a result of the Ministry of Education. Within the scope of this circular published in Turkey, it has been decided by the Ministry of National Education that education and training will be carried out by switching to distance education (MEB, 2020). This decision was implemented in 81 provinces in Turkey to control the effects of the epidemic and reduce mortality rates. Following the meetings of the Scientific Council, the National Education decisions were implemented in the same way. "Emergency Distance Education" has enabled teachers and students to continue their education Dec interruption to the situation they are experiencing with COVID-19 stress and anxiety. It has revealed what the infrastructure requirements for 'Online

Distance Education' provided at all age levels should be. The infrastructure required by the open or online distance education system in Turkey, access, Internet, the availability of some rural areas that the Internet cannot reach, the content required for education, legislation, measurement and evaluability such as needs have been obtained. The studies on the fact that the educational programs adapted to the processes of ensuring that each student can provide a computer or phone can be projected on the screen, processed and understandable have been intensified. Teachers, including Public and Private Schools, were provided with in-emergency service trainings. Trainings have been created on how to conduct the courses and on the applicability of various requirements, such as how to create a lecture invitation, how to use a calendar, or how to take a roll call on the platform used for educational purposes requested by the school. In addition, by requiring fast learning of this information, the orientation of teachers who are ready to use technological resources and technological materials has become faster. Marching April 16, 2020, schools in Turkey were vacationed from March 16, 2020 to April 30, 2020, and it was decided to continue education through 3 TV Channels and the Educational Information Network (EBA) for open and distance education applications at the primary and secondary education levels (MEB, 2020a).

Table 1

Covid-19 Pandemic and Turkey Data for 24.04.2020 by HabereYorum

COVID-19 TÜRKİYE 45.Gün (24 Nisan 2020)										
TARİH	VAKA	YENİ VAKA	ÖLÜM	YENİ ÖLÜM	ÖLÜM ORANI	HASTA & KRİTİK	İYİLEŞEN	DEVAM EDEN VAKA	İYİLEŞME ORANI%	1 Milyon Kişi Başına Vaka Sayısı
1.Gün 11 Mart	1	0	0	0	0,00%	Bilinmiyor	0	1	0,00%	
7.Gün 17 Mart	98	97	1	0	1,02%	Bilinmiyor	0	97	0,00%	
25.Gün 04 Nisan	23.934	3.013	501	76	2,09%	2.220	786	22.647	3,28%	252
30.Gün 09 Nisan	42.282	4.056	908	96	2,15%	2.569	2.142	39.232	5,07%	458
35.Gün 14 Nisan	65.111	4.062	1.403	107	2,15%	2.896	4.779	58.929	7,34%	734
40.Gün 19 Nisan	86.306	3.977	2.017	127	2,34%	1.922	11.976	72.313	13,88%	1.038
41.Gün 20 Nisan	90.980	4.674	2.140	123	2,35%	1.909	13.430	75.410	14,76%	1.094
42.Gün 21 Nisan	95.591	4.611	2.259	119	2,38%	1.865	14.918	78.414	15,61%	1.150
43.Gün 22 Nisan	98.674	3.083	2.376	117	2,41%	1.814	16.470	79.828	16,69%	1.187
44.Gün 23 Nisan	101.790	3.116	2.491	115	2,45%	1.816	18.491	80.808	18,17%	1.224
45.Gün 24 Nisan	104.912	3.122	2.600	109	2,48%	1.790	21.737	80.575	20,72%	
#HabereYorum										

The Covid-19 case numbers, death rates and situations in cities, which are seen with in the corresponding table 1 , indicate the need to switch to 'Online Distance Education'. Also pandemic, educators, parents and students to think critically, solve problems, be creative, communicate, collaborate and it causes has been to be active (Anderson, 2020). The Covid-19 pandemic has also necessitated the sudden introduction of online exams without adequate validity and reliability studies instead of traditional exams and tests conducted in face-to-face education (D'Orville, 2020).

2.3. Covid-19 Pandemic and Online Distance Education in World

The World Health Organization of Covid-19-borne outbreak declared a pandemic in Turkey as the effects of the epidemic in the world to get it under control in order to reduce or stop online distance education , curfews , Covid-19 epidemic and quarantine of close contacts, such as the person who processes were observed and the effects of control in order to be in serious serious measures were taken. The Decisiveness of education is not possible due to the fact that it is a dynamic process. The table below shows the data of Coronavirus case numbers on April 24, 2020 in Turkey and around the world.

Table 2

Covid-19 Pandemic and World Data for 24.04.2020 by HabereYorum

COVID-19 DÜNYA (24 Nisan 2020)								
SIRA NO	ÜLKE	VAKA	ÖLÜM	ÖLÜM %	İYİLEŞEN	DEVAM EDEN VAKA	İYİLEŞME ORANI%	1 Milyon Kişi Başına Vaka Sayısı
	Dünya	2.789.315	195.775	7,02%	781.109	1.812.431	28,00%	359
1	İspanya	219.764	25.969	11,82%	92.355	101.440	42,02%	4.666
2	İsviçre	28.494	1.586	5,57%	21.000	5.908	73,70%	3.318
3	İtalya	192.994	25.969	13,46%	60.498	106.527	31,35%	3.204
4	ABD	909.945	51.445	5,65%	98.817	759.683	10,86%	2.761
5	Almanya	154.689	5.739	3,71%	96.531	52.419	62,40%	1.860
6	Fransa	122.577	22.245	18,15%	43.493	56.839	35,48%	1.827
7	İngiltere	143.464	19.506	13,60%	1.918	122.040	1,34%	2.159
8	Türkiye	104.912	2.600	2,48%	21.737	80.575	20,72%	1.262
9	İran	88.164	5.574	6,32%	66.596	15.994	75,54%	1.058
	Çin	84.311	4.642	5,51%	77.257	2.412	91,63%	60
	Rusya	68.622	615	0,90%	5.568	62.439	8,11%	428

It was wanted to draw attention to its criticality in the world by sharing the figures seen in Table 2 .4 and the numbers of the most risky countries. Spain, Switzerland, Italy, USA, Germany, France, Dec and Turkey are among the most risky countries. One of the most important priority goals for all countries where the coronavirus (Covid-19) pandemic is observed is to ensure the continuation of education without interruption (Ertuğ, 2020). According to Gilani (2020), the closure of schools forces countries to innovate to keep the education system afloat, a new education system is taking shape all over the world, countries are finding continuous solutions to continue uninterrupted education, but the quality of learning largely depends on the level and quality of digital access. In addition, many countries due to the pandemic have been forced to Decommission face-to-face education.as an alternative way, all countries have been able to continue their education by choosing almost open or distance education. In addition, this process carried out and experienced due to the Covid-19 pandemic online distance education shows that we need a system that can meet today's needs and provide alternative learning instead of the traditional understanding of education. Most of the countries have organized live classes and online courses for their teachers, students, parents and

administrators of the school's staff (Chang & Satako, 2020). Ertuğ (2020), ‘according to Pandemic, hence (Argentina, Croatia, China, Cyprus, Egypt, France, Greece, Italy, Japan, Mexico, Portugal, Republic of Korea, Saudi Arabia, United Arab Emirates and the United States of America) connected to the internet is being used online platform for continuous learning, and in some countries (Argentina, Croatia, China, Costa Rica, France, the Islamic Republic of Iran, Korea Republic, Mexico, Rwanda, Saudi Arabia, Senegal, Spain, Peru, Thailand, and Vietnam) learning of the content that is presented with the help of television and other media, however, some countries (Costa Rica, Thailand and the Islamic Republic of Iran) asserts that the present application is used to maintain communication between teachers and students.’ Due to the fact that the pandemic began in Wuhan, China has become the earliest to start online distance education. Zhou, Li, Wu and Zhou (2020) Starting with the slogan “School's Out, But Class's On (No school, but there are classes)” launched by China nationwide during the Covid-19 process, 270 million elementary, middle, high school and undergraduate students have received online education.(Durak,Çankaya,Izmir,2020).

Table 3

The Practices of Some Countries Related to Education and Training in the Epidemic

Tablo 1: Salgın Sürecinde Bazı Ülkelerin Eğitim-Öğretime İlişkin Uygulamaları

Ülke	Uygulamalar
Avustralya	Profesyonel Öğrenme ile uzaktan / çevrimiçi öğrenmeyi teşvik edilmiştir. Her okulun çalışanlar ve öğrencilerin erişebildiği ve kullanımı kolay platformlar oluşturulmuştur.
Belçika	Eğitim programlarının ulusal televizyonda yayınlanması / “evde eğitime” devam edilmesinin önemi vurgulanmıştır.
Kosta Rika	Çevrimiçi okuma ve diğer çalışma kaynakları bir araya getirmeye çalışılmış ve bu kaynaklara nasıl erişileceği konusunda devlet televizyonu, internet sitesi ve sosyal medya duyuruları yoluyla paylaşılmıştır.
Çekya	Bakanlık çevrimiçi eğitim için kullanılan araçların bulunduğu bir internet sitesini kullanıma sunmuştur.
Finlandiya	Öğrencilerden eğitim, uzaktan eğitim olarak düzenlendiği sürece evde kalmaları istenmektedir.
Fransa	Öğrenci ve öğretmen arasında düzenli iletişimi sürdürmek için pedagojik bir devamlılık uygulamaya koyulmuştur. Bu amaçla öğretmenler, özellikle öğrencilerin öğrenmeleri için gerekli olan ödevlerini ve alıştırmalarını yapabilmelerini ve ders materyallerine erişebilmelerini var olan ağları kullanarak (özellikle özel okullara özgü dijital çalışma alanları, elektronik posta veya benzer araçlar) mümkün hale getirilmiştir. Bu pedagojik devamlılık hizmeti Cned: “sınıfım evde” adlı ücretsiz pedagojik bir platform üzerinde temellendirilebilir. Bu hizmet sanal dersler yapma, dolayısıyla öğrenci, sınıf arkadaşları ve öğretmenleri arasında insani bir bağlantıyı sürdürme imkânı sağlamaktadır.
Gürcistan	Dersler canlı olarak yayınlanmaya devam etmektedir. Televizyon dersleri, yabancı diller ve spor hariç olmak üzere 1-12. sınıflardaki tüm zorunlu dersleri kapsamaktadır.
İsrail	İlk ve ortaöğretim öğretmenleri tarafından yapılan günlük ulusal ders yayınları (aynı anda 24 sınıf hem ibrance hem de Arapça konuşanlar için günde 6 saat); öğretmenlerin becerileri destekleme- dijital sınıf ortamları ve web seminerleri; dijital öğrenme görevleri ve hem öğretmen hem de öğrenci ve ebeveyn portalları üzerinden erişilebilen ulusal müfredatın yüzde 80’ini kapsayan zengin medya içeriği oluşturulmuştur.
İtalya	Eğitim Bakanlığı özel çevrimiçi sayfalar, video oturumları ve sanal buluşma alanları oluşturmuş; e-öğrenme platformları sunmuş, destekleyici bir faaliyet grubu sağlamış, yeni öğrenme ortamlarını geliştirmek için çoklu bir eylem koordinasyonu yapmış, dijital içeriğin ve öğretici örgütlenmenin yeni modellerinin kullanılmasını kolaylaştırmış; öğretmenlere ücretsiz uzaktan eğitim ve güncel araçları sağlamış, ayrıca bölgesel çalışma gruplarıyla okullara teknik destek sağlamış; izleme inisiyatiflerini başlatmış; sosyo-ekonomik olarak dezavantajlı olan öğrenciler için ekonomik destek oluşumlarını başlatmıştır.
Japonya	Ulusal Hükümet, MEXT (Eğitim, Kültür, Spor, Bilim ve Teknoloji Bakanlığı) okulların kapanma sürecinin bitiminden sonra uygun evde çalışma programları başlatma ve ek dersler düzenleme gibi çocukların çalışmalarını desteklemek için mümkün olduğunca eşit önlemler sunan yerel eğitim kurumlarını desteklemektedir. MEXT ayrıca okullardan ve eğitim kurumlarından alınan iyi uygulamaların yanı sıra, her dersi öğrenmek için çeşitli tavsiyeler ve ipuçları, ev vb. yerlerde kullanılabilecek ücretsiz öğrenme materyalleri ve videoları sunan bir öğrenme portalı kurmuş ve bunun tanıtımını yapmaktadır. Ayrıca METI web siteleriyle birlikte çevrimiçi öğrenme konusunda bilgiler sunmaktadır.

According to table 3 ,In the UK, the first distance learning was held on March 12, 2020. In order to prevent the learning losses caused by the transition to distance education with a mirror during the Covid-19 pandemic, schools were gradually reopened as of June of the same period. By June 15, 2020, the schools were reopened. In order to end the spring semester of the academic year, schools made their compensations, especially exam groups, without taking the summer break for compensatory education. Due to the rapidly increasing cases during the 2021-2022 academic year, schools experienced a wave again in December when the epidemic could not be overcome. On January 5, 2021, the schools closed again. It has been stated that they have experienced a serious learning loss for disadvantaged groups of learners due to the fact that this process will continue (Juniper Education National Dataset Report, 2021) . Schools were kept open between January and March for critical sector employees due to the business areas that need to do their job during the transition period (Department of Education , 2021a).

2.4. The Reason Why Online Distance Education is Preferred in the Covid-19 Pandemic

The reasons why ‘online distance education’ is preferred in order to control the epidemic in the Covid-19 pandemic can be considered from the following points of view; It prevents the spread of the epidemic by providing social distancing. The continuity of the right to education and training is ensured without putting people at risk under control despite the coronavirus. What to do about the rules of social distancing in face-to-face training has been planned by the Scientific Council in stages. The fact that the vaccine has not yet appeared on the first date of release for the coronavirus and the phases of its study are seriously taking a process. Children are ‘super carriers’ of the coronavirus, and family members such as parents or grandparents over the age of 65, who are also in families, are at risk of death. It is not known how long the epidemic will last and the epidemic is being seriously dealt with.

2.5. Advantages-Disadvantages of Online Distance Education

We can transfer the advantages as follows; If we evaluate the advantages of Online Distance Education in terms of the Covid-19 pandemic, it has had a preventive effect on the spread of the epidemic. From the point of view of the number of students, the number of teachers, the number of administrators, the number of school staff, the number of service drivers, the number of parents – parents who interact during the pandemic process, when the epidemic comes in the form of waves, it ensures the controlled departure of one of the largest masses that prevent the spread of the epidemic. The Ministry of National Education and the Ministry of health of regarding to curfews, including the realization of this process to take place completely online education in distance education than even the interruption of their daily lives students and teachers in the fuck was ‘completely paralyzing be such as has provided a way to continue daily routines. The necessity to be experienced in terms of using technological. resources and technological tools has been learned by exposing today's technologies to learning. Learning by exposure has made it necessary for people to adapt. Although it is inevitable that teachers who teach online distance education in the pandemic of technology use skills will develop towards this, their advantages have provided a horizon in terms of being able to maintain their own courses and open up to innovations. At the same time, online distance learning is economical. We can cite the disadvantages as follows; If we evaluate the disadvantages of Online Distance Education in the Covid-19 pandemic as follows; In regions where there is not enough infrastructure, students and teachers could not provide internet access as a result of the inability to carry out educational processes. Each student did not have a computer or tablet, students were able to participate in classes by connecting from their parents' phones. Due to the fact that parents do not have sufficient digital literacy when directing their children to classes, and their own business processes are carried out remotely, they have not had enough time to direct their children. Some students have experienced situations where they have never been able to attend classes, and there have been subject deficiencies. Social communication can be restrictive. The groups preparing for the exam had to continue with the intensive process of distance education. Because the planning of the exam schedules of schools and how to do the measurement evaluation is not known during the epidemic, it sometimes required double planning, whether in the form of a face-to-face transition or in the form of an online distance. Compensation trainings have been tried to be conducted by experiencing some learning losses.

2.6. Distance Education Application Models

Digital technologies have gained a place in educational environments at different levels (Aslan, 2021). Distance education is carried out through these technologies. And application models vary in distance education. Simultaneous (synchronous), non-simultaneous (asynchronous) and Mixed (Blended/Hybrid) applications are realized (Turel & Kavrat, 2013). Distance education applications can be applied simultaneously (synchronous) and in separate time (asynchronous) and also provide interaction with advanced tools for distance education (Perktaş, 2022). Mixed (blended) application model is a model in which simultaneous, non-simultaneous application models and traditional education are combined (Horzum, 2011).

2.7. Teacher Qualifications

It is necessary to have some competencies in the titles of teaching and development brought by the teaching profession. According to the legislation of the Ministry of National Education 2002, the ‘Qualifications for Teaching and Training’ consists of 14 parts. The 14 sections where these qualifications are collected are as follows; Student recognition, teaching, planning, materials development, teaching, managing, performance measurement and evaluation, guidance and basic skills development, to individuals who need special education services, adult education, availability of extracurricular activities, Self-Development, School Improvement and qualification of the substance consists of 206 (MEB, 2002) also as each of these competencies may not be equal to each teacher in the country according to the item there will be differences in the influence of culture. One of the teacher competencies is technology literacy. In the researches conducted in our country, it has been seen that importance is given to the technology literacy of teachers (Seferoğlu, 2004).

2.8. Online Teaching Competencies

Since it is a question of working with people while performing the teaching profession, we have stated that they should have a number of qualifications both according to the Ministry of National Education 2002 and according to educators in the field. However, the teacher qualifications required by online distance education are a current issue that needs to be addressed within the scope of technology literacy. There are many studies on online teacher

proficiency in the literature. It is observed that these studies have been increasing and updated during the pandemic process, when online distance education had to be used in all educational fields before Covid-19. According to Salmon 2002; " Online teacher competencies are understanding the online process, technical skills, online communication skills, subject expertise and personality traits.' According to Salmon (2002), the following are the requirements to be found in online teacher qualifications;

Figure 2

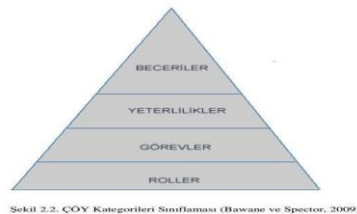
The Competencies That Online Teachers Should Have, According to Salmon

Salmon'a Göre Çevrimiçi Öğretmenlerin Sahip Olması Gereken Yeterlikler						
Nitelik / Özellikler	1. Güven duyma	2. Yapıcı olma	3. Gelişime açık	4. Kolaylaştırma	5. Bilgiyi paylaşan	6. Yaratıcı
<i>Çevrimiçi İletişim Becerileri</i>	Çevrimiçi (yazılı) iletişimde öğrencilere saygı duyulduğuna ifade eden bir dil kullanma, zamanı uygun kullanma	Öğrencileri motive eden, açık ve çekici mesajlar yazabilme	Öğrencilerle çevrimiçi etkileşim kurmak, mesajlara uygun cevaplar verme, uygun oranda varlığını hissettirme ve öğrencilerin beklentilerini karşılamak	Elektronik posta ve konferans ile etkileşim kurma ve model olma. Öğrencilerin katılımını artırma	Kültürel farklılıkları keşfetme ve takdir etme.	Görsel etkiler kullanmadan iletişim kurabilme, problemleri tanıma ve çözme. Çevrimiçi sosyal bir ortam oluşturma, yetenekleri yapıcı olarak ele alma.
<i>Konu Uzmanı</i>	Bilgi ve deneyimlerini paylaşmalı ve öğrenmede katkısını ortaya koymalı	Diğer uzmanlarında derse katılımına sağlayabilme, farklı kaynaklardan haberdar olma	Düşündürücü sorularla tartışmaları tetiklene becerisine sahip olma ve ne zaman müdahale edeceğini bilme	Derse katkı sağlayan öğrencilere adil olarak ödüllendirici notlar vererek otorite taşıma	Web'teki kaynaklardan haberdar olup e-vitelerde kullanma	Çoklu ortam ve elektronik kaynaklar kullanarak konferansları canlandırma ve yaratıcı geribildirim verme
<i>Kişilik özellikleri</i>	Çevrimiçi öğretmen olmak için kararlılık ve motivasyona sahip olma	Çevrimiçi öğretmen olarak çevrimiçi bir kimlik kurma	Yeni öğrenme bağlandırları, yöntem ve rolleri benimseyebilme	Çevrimiçi ilgililere ve iletişime karşı hassasiyet gösterme	Çevrimiçi öğrenme için pozitif tutum sergileme	Nasıl çevrimiçi topluluk oluşturulacağını ve devamlılığını sağlayacağını bilme

Salmon'a Göre Çevrimiçi Öğretmenlerin Sahip Olması Gereken Yeterlikler						
Nitelik / Özellikler	1. Güven duyma	2. Yapıcı olma	3. Gelişime açık	4. Kolaylaştırma	5. Bilgiyi Paylaşan	6. Yaratıcı
<i>Çevrimiçi Süreci Anlama</i>	Çevrimiçi öğrenci olarak kişisel deneyim, öğrenme yaklaşımına yönelik esneklik. Çevrimiçi öğrencilerin karşılaştıkları zorluklara karşı empatik tutum	Çevrimiçi ortama karşı güven ve faydaları konusunda öğrencileri ikna etme	Kendisi ve öğrencileri tartışmaları katkı, yorum, özeltme, detaylandırma gibi konularda gelişime yönlendirme. Öğrenmeyi gözlemleme ve yanlış anlaşımları düzeltme ve geri bildirim verme	Öğrencileri ne zaman kontrol edeceğini ne zaman serbest bırakacağını, katılımcı olmayan öğrencileri derse nasıl çekeceğini tartışmaları nasıl yönlendireceğini, zaman yönetimini, çevrimiçi ders oluşturma sürecini ve nasıl kullanacağını anlama	Öğrencilerin tartışmalarındaki fikirlerini destekleme, tartışmaya katkısı olmayan mesajları silerek diğerlerini arşivleme	Yapılandırılmış aktivitelere (e-vites) yapılandırılmamış tartışmaları kadar uzman farklı metodları kullanma ve bu aktivitelerin bagarını değerlendirme.
<i>Teknik Beceriler</i>	Kullanımda olan yazılımı işlevsel bir şekilde bilme, klavye becerisine sahip olma, internete hızlı, düzenli ve mobil olarak ulaşabilme imkanına sahip olma	Çevrimiçi ortamın, web ve internetin temel kullanımını bilme	Çevrimiçi öğretmenlere özel yazılımın özelliklerini bilme, ör. kontrol etme, arşivleme	Öğrencinin kullanımını gözlemleme için yazılımın özelliklerini kullanabilme, ör. öğrencinin eski mesajlarını görebilme, özeltme, arşivleme	Diğer öğrenme programları özellikleri arasında linkler sağlama, öğrencilere diğer çevrimiçi kaynakları tanıtmak	Konferans ve elektronik aktiviteleri oluşturmak için yazılım olmalarını kullanabilme ve çevrimiçi öğrenme çevreni yaratma, farklı yazılım ve platformları kullanabilme

Figure 3

Online Teacher Qualifications Category Ranking (Bawane & Spector , 2009)



Şekil 2.2. ÇÖY Kategorileri Sınıflandırması (Bawane ve Spector, 2009)

According to the above roles by determining the category of the first online teacher qualifications which are linked to the will of determining the skills, tasks and task sets (Baturay & Türel, 2012) Also found that the roles and competencies teachers need to be face-to-face education in online distance education can be integrated in (Aragon & Johnson , 2002).

"Facilitator: The role of the process facilitator includes online activities that support the student's learning. Instructional designer: Makes designs before online learning applications. Consultant: A person who helps students with the course, individually or privately, closely monitors them and gives advice. Content specialist: Helps in the production of new information and in providing lessons inside. Technologist: By making technological choices, it improves the existing learning environments for students. Evaluator: Provides feedback on the behavior of students in classrooms with this role. Material Manufacturer: Provides materials suitable for the content of the course. The definitions of 'Administrator: Keeps records of students, system security and course records" describe the preferred roles for online teachers in Aydın (2005)'s study. Although the role of communicator of teachers is one of the requirements of the profession, technical knowledge in online distance education is required in order to perform their technical role. Therefore, this educational environment, in which he can use his technical roles, allows him to create a virtual classroom environment by maintaining his social roles during the process in which he communicates and conducts his teaching. While doing all this, her pedagogical role combines education and her roles to ensure that she is a teacher who can adapt herself to the online teacher environment. On the other hand, increasing cooperation and sharing is one of the outstanding points provided by online education (Draves, 2000). Based on the studies conducted, the teacher who has reached a common denominator has the roles of a subject specialist, process facilitator, teacher designer, psychological guidance, technology specialist, evaluation specialist, material developer, administrator in online distance education. In order to perform these roles, it can be said that they must have various qualifications such as technology, time, communication, online education, content creation and subject matter expertise. In 2003, the number of studies conducted for online teacher qualifications averaged 20 pieces and 5 of them were passed as master's theses. After the Covid-19 pandemic, the number of studies on online distance teacher qualifications has Dec 9,230 results between 2003 and 2022. until 2004, there were a total of 42 results, part of which is a directly related issue. The characteristics of the online environment affect the roles of e-trainers and are as follows (Baturay & Türel, 2012).

Before Training

- Preparation of course content
- Information about the Educational Management System
- Information about the chat environment

- Information about the level of readiness of students for online education

Order of Training

- Presentation of the course content
- * Execution of chat environments
- * Conducting discussion platforms
- Giving feedback to the messages of the learners

Post-Training

- * Measurement of learning outcomes
- Evaluation of assignments
- * Evaluation of education (Baturay and Türel, 2012)

In addition, all effective online programs require the initial serious planning of the proposed goals, along with all the lectures and careful studies related to the profile, characteristics and needs of students (Queiroz & Mustaro, 2003).

2.9. Description of Face-to-Face Education and Hybrid Education

It is face-to-face education in schools that are traditional education. Hybrid education, on the other hand, is a Dec-called mixed education in which distance education and traditional education are integrated and applied together. In a study on hybrid training in Kyrgyzstan by 2020, it shows some results ; the implementation of distance education in Kyrgyzstan and the pandemic is not new to most of the countries of the world, although there is limited work in education, remote education, such as hybrid and just a new situation. On the other hand, students' approaches to blended learning have reached the conclusion that they find blended education useful with video, text reading materials. The study, in which the students concluded that they are more interested in blended education than distance education, was carried out within the framework of Manas University of Turkey and Kyrgyzstan BAP (Jumabaeva, Ayzharkyn, Sait, Baryktabasov, Ismailova, (2020).

2.10. Transition to Face-to-Face Training After the Covid-19 Pandemic

As a result of health conditions forcing education to change, as a result of the pandemic, vaccination was carried out and the mutation of the virus increased, the necessary measures were taken in face-to-face education and training 2021-2022 year was carried out

without completely closing. The questions that the pandemic made educators think and that the world will no longer remain the same have taken place. Can some courses continue to be taught remotely? It was found positive that EBA-TV could broadcast without interruption in order for students not to forget their information during the summer process. During the pandemic process, where our psychological resilience and some of our skills have been tested, opinions have been expressed that the availability of some courses with hybrid training is appropriate in face-to-face training. In August 2019, he was appointed as the Chairman of the Board of Education and Training by Prof. Dr. Burhanettin Dönmez; ‘We are in the days when students can use information technologies, improve themselves in design skills workshops, learn with individualized programs in accordance with their interests and abilities, and sometimes the school can come home,’ he says that adaptation to the new world is necessary. The effects of this global transformation and global transformation in the field of education, which began with the pandemic process, seem to be at least as important as the industrial revolution in the world (Ülger, 2021). After a long epidemic effect, when face-to-face education was started again, studies were conducted on the adequacy of technology use in teachers. 2022 ye ati One of these studies was investigated by Neşe Saçkan (2022) . School administrators and teachers of Merkez Efendi and Pamukkale districts in Denizli province can use online tools to conduct distance learning with their students, where the highest average for the technology use sub-dimension of technology education is “I can use online tools to do distance learning with my students.” (Saçkan, 2022). Looking at distance education in the pandemic after the transition to face-to-face education, that is, after the pandemic, will allow us to see what are the new norms in education.

2.11. Covid-19 Pandemic and Post-Pandemic Hybrid Education

Due to the Covid-19 pandemic, some practical courses that took place required hybrid processing. Another educational opportunity that attracts attention as an innovative approach is that it shows on the occasion of the pandemic that alternative (hybrid) educational structures are possible. During this process, which we were forced to do, face-to-face training practices had to be decelerated during the epidemic period and distance education had to be switched to. Therefore, awareness of hybrid, that is, coeducational, has been formed, which is understood to be an alternative to traditional educational practices

with distance education. Distance education carried out with planned and scientific methods in the 21st century. It is said that it can be considered as an opportunity to rebuild the understanding of education (Sarı & Nayır, 2020). In addition to the courses in the process of normalization after the pandemic and the transition to face-to-face education in schools, some courses will be conducted remotely and face-to-face in a mixed way and will contribute to the distance education infrastructure of schools. Digitizing course materials is considered an important opportunity for teachers and students to develop their skills in using distance education platforms (Sarı & Nayır, 2020). In new studies where the problems caused by Covid-19 have created new opportunities, a footnote has been mentioned. Since the process requires the hybrid implementation of some courses, the normal functions of schools are questioned and the new normal can be answered in accordance with the needs of today's educational scientists and educational programmers are the topics that they should study and produce. The necessity of revision of education policies has been understood with this crisis and, like all sectors forced to change, forcing changes in education is an example of what needs to be done to any new crisis that may occur or crises that may occur in the coming years. It is necessary to ensure that the distance education infrastructure in all schools is adaptable by creating and installing it.

2.12. Reflections After The Pandemic Pandemic In The Literature For Studies

In this section, a review of the studies in the literature on the reflections of face-to-face education after online distance education of the pandemic, that is, after the pandemic, is available. No thesis work has been found in the title of education after the pandemic. When scanned with the title after the pandemic, six dissertations are displayed in Turkey at the institute of education and training. In the screening conducted under the title of hybrid education in the period 2021-2022, 5 master's theses were written in the field of educational education. December 2021-2022, 5 master's theses were written in the field of educational education. A total of 3 dissertation studies have been found in the title of online teacher qualifications in Turkey.

2.13. Studies in Turkey

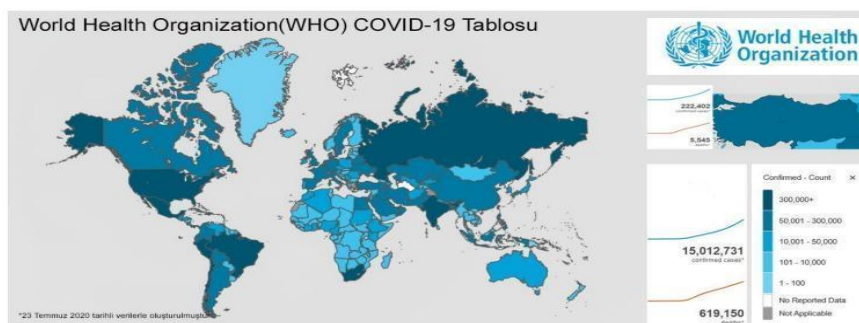
The literature mainly studies are conducted with health workers on the pandemic process where more studies have focused only on education on the problem and is working in the aftermath of the pandemic, it is noteworthy that the harmonisation process for a limited number of (Yaşar,2021). “First of all, a different regulation should be prepared before the ministry of national education regarding the distance education process than the one that applies to formal education. In accordance with this regulation, the clarity, standards of distance education at all levels of education, etc. It must be ruled out and binding conditions must be established. All issues related to all stakeholders of education, working conditions and all issues related to practice should be clearly defined. In this context, the institution standards should be re-determined by considering similar possible situations and the physical proficiency status of the schools should also be reviewed. (Haskılıç,2021). Opinions of higher education students were taken and there were difficulties for some students in online distance education to focus on the course caused by the pandemic (Erpay , 2021). In addition, due to sudden digitalization, there was a concern about how to keep their digital footprints and data reliable.

2.14. Studies in the World

The following table shows the global impact of the Covid-19 pandemic, which affects the entire world. December March 2019, the Covid-19 pandemic emerged in Asia, and as of March 2020, it is a pandemic that has affected the entire world in as little as four months(Bozkurt,2020).

Figure 4

The global impact of the Covid-19 Pandemic (Who ,2020b).



The distribution of the 1.6 billion students who are closed to face-to-face education in the Covid-19 Pandemic on Earth is indicated in the following image. This number is about 25 million in Turkey. After this table, emergency remote education (ERE) applications have been launched by educational institutions all over the world (Bozkurt, 2020)

Figure 5

Countries where education has been interrupted by the Covid-19 pandemic (UNESCO, 2020b)



Table 4

The Student Population Affected by the Interruption of Education due to Covid-19 (UNESCO, 2020B) .

Grade	Woman	Men	Total
Preschool	632.944	693.179	1.326.123
Primary	2.421.515	2.550.915	4.972.430
Secondary	5.450.541	5.953.844	11.404.385
High	3.312.880	3.886.107	7.198.987

The student population affected by the interruption of education with Covid-19 in Turkey is 24,901,925. The total number of affected female students is 11,817,880 and the total number of affected male students is 13,084,045 (UNESCO, 2020B). The concept of "Urgent Distance Education" has appeared. In the new normal process after the pandemic, it is expected that there will be a direction towards blended learning (Bonk & Graham, 2012) applications and HyFlex (Hybrid Flexible) applications (Beatty, 2014; Maloney & Joshua Kim, 2020) applications in the context of planned educational actions. It is important from the point of view of meaningful learning that students are supported and guided in K12-level applications. It is thought that the flexible roles of new and traditional educational institutions and the access of students to information from different environments will add value to informal learning processes. It was shared that the ability to view course records over and over again provides flexibility (Mintz, 2020). Due to the fact that the pandemic process has been passed and the experience of online distance education for urgent distance education applied during the pandemic can be compared to face-to-face training is said to have been gained. According to Russel (1999), there is no difference between distance education and face-to-face education when it is deconstructed with educational technologies. Due to the fact that its effect will last a long time (Azevedo et al., 2020) with this pandemic, the largest social experiment in the history of the world took place in a natural way with about 1.6 billion students (Anderson 2020; Zimmerman, 2020). In order to learn from the pandemic, it is important to look at what happened from a critical point of view (Costello, Brown, Donlon and Girme, 2020) and develop new policies in this context (Eren, 2020). The new normal after the pandemic is to employ concrete technology-oriented solutions that need to be taken into account, as well as abstract technologies that directly reflect the invisible part of educational technologies. Abstract technologies mean the following; educational theories, approaches, strategies etc. (Bozkurt, 2020). After the pandemic, teachers used online distance education to adapt their own course content to the digital environment in such a way that they remained as material in their hands. Pandemic together with the imitation of the presentation of content simultaneously in face-to-face education, which is one of the most commonly used tools in this process by Zoom as well as a tribute to fatigue (Degges-White, 2020; Wiederhold, 2020). Presence situations that affect both cognitive and physical learners and expressed in the form of outlines (Bozkurt, 2020). Experienced a possible outcome of the painting as learning analytics (Johnson, Smith, Willis, Levine, Haywood, 2021) will be used, it is thought that in the near future. The concern that

technology companies may use digital data for marketing educational materials is considered in educational circles (Mirrlees & Alvi, 2020). Current ethical concerns about digital data and how to use this data have increased in the pandemic as a large number of learners have turned to online environments (Kerres, 2020). In this context, there are thoughts about what measures will be taken to urgently determine the legal and ethical boundaries and ensure personal privacy and confidentiality.



3. METHOD

Covid-19 pandemic in distance education online teacher roles and competencies of the pandemic after the transition to hybrid and face-to-face training used in this study aimed to examine the reflections of the relationship between education, research design, data collection tools, sampling and survey data for the analysis of the parts are described in this section

3.1. The Purpose of the Study

This research is based on the relational screening model. Karasar (2003:81) defines relational screening models as “research models aimed at determining the presence and/or degree of co-variation between two or more variables”. The aim of this study is to investigate the relationship between the reflections of online teacher Decencies on face-to-face education and hybrid education after the pandemic in the pandemic process. In order to determine the online teacher competencies of teachers, the online teacher competencies scale was used. In order to get the answers of the teachers to the questions related to the post-pandemic period, a questionnaire was conducted.

3.2. Research Questions

Research questions of this study are as below

- 1) What are the online teacher roles and competence levels in the Covid-19 pandemic?
- 2) According to the survey questions, is there a significant relationship between online teacher roles and competencies in the Covid-19 pandemic?

3.3. Attendees

The study in the academic year in Turkey 2019-2022 Covid-19 pandemic face-to-face training through online remote training teachers made after the pandemic is still ongoing in the profession pre-school , elementary school , middle school and high school teachers who has taught at 350 levels poses. The following are the tables of the teacher participants who conducted online distance education in the Covid-19 pandemic in 2019-2022, which made up the study universe, and who are still actively continuing their teaching profession. As seen in the table of respondents %29.7 percent (104 people) for 1-5 years seniority in the profession , %35.1 percent (123 people) 6-10 years seniority in the profession , %17.7 percent (62 people) years of seniority in the profession 10-15% and 17.4 percent (61 people) has over 16 years of years of seniority in the profession. 21.7% of the respondents (76 people) stated that ‘Pre-school age (3-4 years, 4-5 years, 5-6years old) grade level ‘, 24% (84 people) ‘ Primary school (1. class , 2nd. class , 3rd.class , 4th.grade) indicates ’ grade level‘, of which 27.7% (97 people) are in Middle school (5.class , 6th. class , 7th. class , 8th.grade level)’ improved the grade level, 26.6% (93 people) ‘ Upper Secondary school (9. class , 10th.class , 11th. class , 12th.class)" consists of 350 teachers who teach at the grade level. 40.6% (142 people), after face-to-face learning disability adapt to living pandemic , %51.1 percent (179 people) live and face-to-face education after a pandemic without difficulty adaptation in %8.3% (29 people) pandemic, after face-to-face education consists of 350 participants undecided about whether adaptation is experiencing difficulties. 33.7% (118 people) of the participants in the study consisted of 350 participants whose time management skills increased during the pandemic process, 15.7% (55 people) whose time management skills decreased during the pandemic process, 50.6% (177 people) whose time management skills did not change during the pandemic process. 70.3 percent of survey respondents (246 persons) pandemic is a post-technological ability to use resources efficiently increased 2% (7 people) as a pandemic, the post-technological ability to use resources efficiently, decreasing %27.7 per cent (97 people) pandemic is a post-invariant consists of the ability to use technological resources efficiently teacher 350 participants. %70.9 percent (248 people) pandemic is a post-pandemic ago compared to increasing the ability to use technological tools , %23.4 percent (82 people) pandemic is a post-pandemic ago compared to experience changes in the ability to use technological tools, without %5.7% compared with (20 people) pandemic is a post-pandemic ago compared to the ability to use technological tools for the change in unstable, remaining teachers consists of 350 participants. 0.6% (2 people) after a

change in our education system if the pandemic online distance education class levels from pre-school they see fit , %95.1 percent (333 people), after face-to-face training from class levels pandemic if a change in our education system pre-school they see fit , and 4.3% (15 people) after a change in our education system if the pandemic hybrid training class levels from pre-school teacher consists of 350 participants with the response they see fit. 1.1% of the respondents (4 people) of the study envisaged a change in our education system after the pandemic of online distance education from grade levels to primary 1.93.4% (327 people) of whom they consider appropriate at the level of face-to-face education, although a change in our education system is envisaged after the pandemic, primary education from grade levels 1. 5.4% (19 people) of whom they consider appropriate for their level of hybrid education after the pandemic, if a change is foreseen in our education system, primary education from grade levels 1.it consists of 350 teacher participants with the answer they deem appropriate for their level. 1.1% of the respondents (4 people) of the study envisaged a change in our education system after the pandemic of online distance education from grade levels to primary 2.83.7% (293 people) of whom they consider appropriate in their level of face-to-face education, although a change in our education system is envisaged after the pandemic, primary education from grade levels 2. 15.1% (53 people) of whom they consider appropriate for their level of hybrid education, if a change is foreseen in our education system after the pandemic, primary education from grade levels 2. 350 teachers are composed of participants according to the answers they deem appropriate for their level. of respondents %5.1 (18 people) online distance education class if a change after the pandemic in our education system at the secondary level from the level they consider appropriate in %65.7 percent (230 people) face to face education after the primary stage of a pandemic in our education system at the secondary level they consider appropriate from the class if you change the % 29.1 percent (102 people) after a change in our education system if the pandemic hybrid training at the secondary level consists of 350 participants with appropriate responses from the class level teacher. of respondents %63.1 (221 people) pandemic in the process of distance education students who are unable to attend a course for that class to the student after registering for the course as it progresses flexibility to watch live was thinking say yes , %17.4 percent (61 people) pandemic in the process of distance education students who are unable to attend a course after registering for the course live for that class, as the track progresses, the students not to think of those who said no flexibility of 19.4 percent (68 people) in the process of distance education students who are unable to attend a

course of the pandemic that class to the student after registering for the course as it progresses to watch live for flexibility relating to, composed of 350 participants from over the fence.

Table 5

Demographic Distribution of the Participants and Teachers' Opinion on Pandemic

		Frequency	%
Year of Seniority of Teachers	1-5 Years	104	%29.7
	6-10 Years	123	%35.1
	11-15 Years	62	%17.7
	16 Years and Over	61	%17.4
	Total	350	100,0
The Level of the Classroom Taught by the Teachers	Preschool	76	%21.7
	Primary School	84	%24.0
	Middle School	97	%27.7
	High School	93	%26.6
	Total	350	100,0
Difficulties in Adapting to Face-to-Face Education After the Pandemic	E29,,periencing Adjustment Difficulties	142	%40.6
	Who Does Not Have Difficulty Adapting	179	%51.1
	Unstable	29	%8.3
	Total	350	100,0
The Effect of Pandemic Process on Time Management Skills	Increments	118	%33.7
	Decreases	55	%15.7
	What has not changed	177	%50.6
	Total	350	100,0
To Be Able to Use Technological Resources Efficiently After the Pandemic	Those Who have Increased the Ability to Use It Efficiently	246	%70.3
	Reduced Ability to Use Efficiently	7	%2.0
	The Ability to Use It Efficiently Has Not Changed	97	%27.7
	Total	350	100,0
Comparison of the Ability to Use Technological Tools After the Pandemic Compared to Before the Pandemic	Better Users Than Before the Pandemic	247	%70.6
	Those Who Have Not Experienced a Change Compared to the Pandemic	83	%23.7
	Those Who Remain Undecided	20	%5.7
	Total	350	100,0

With in the Framework of Foreseeing a Change in Our Education System After the Pandemic and the Education Model That Teachers Deem Appropriate at the Preschool Level	Online Distance Education	2	%0.6
	Face to Face Education	333	%95.1
	Hybrid Education	15	%4.3
	Total	350	100,0
Within the Framework of Foreseeing a Change in Our Education System After the Pandemic and Primary Education 1. The Model of Education That Teachers Consider Appropriate at the Level of	Online Distance Education	4	%1.1
	Face to Face Education	327	%93.4
	Hybrid Education	19	%5.4
	Total	350	100,0
Within the Framework of Foreseeing a Change in Our Education System After the Pandemic and Primary Education 2. The Model of Education That Teachers Consider Appropriate at the Level of	Online Distance Education	4	%1.1
	Face to Face Education	293	%83.7
	Hybrid Education	53	%15.1
	Total	350	100,0
Within the Framework of Foreseeing a Change in Our Education System After the Pandemic and the Education Model That Teachers Deem Appropriate at the Secondary Education Level	Online Distance Education	18	%5.1
	Face to Face Education	230	%65.7
	Hybrid Education	102	%29.1
	Total	350	100,0
Flexibility to Watch Live Course Recordings during the Pandemic	Yes	221	%63.1
	No	61	%17.4
	Unstable	68	%19.4
	Total	350	100,0

3.4. Instruments

In the study, the "Teacher Personal Information Form" and "Teacher Opinion Form About The Pandemic" was used together with the "Online Teacher Competencies" scale form (Kavrat & Türel, 2013) (see Appendix A, see Appendix B , See Appendix C).

3.4.1. Demographic Information Form for Teacher

In the first part of the study, ‘‘Demographic Information Form for Teacher’’ was used. Personal characteristics of the participants and the study that comprise the covid-19 pandemic pandemic from online distance education developed by the researcher to the surface once we get to the face after some data for the ‘teacher of the personal form’ were reached by using (See Appendix A). Year of seniority in the profession of the participants with this form , the grade level you teach , when you pass the difficulty of the pandemic after the alignment, whether it is face-to-face training , time management skills in the aftermath of the pandemic on the pandemic situation , face-to-face after the pandemic to the efficient use of technological resources in education , the state faced in the aftermath of the pandemic after pandemic distance education in technological tools to be able to use efficiently the situation in which the education levels of the training model, which could be positive , allowing the record to be viewed later in the course of the pandemic on the flexibility of the collection of data was provided.

3.4.2. Teacher Opinion Form About The Pandemic

In the second part of the study, ‘‘Teacher Opinion Form About The Pandemic’’ was used. Some data on the personal characteristics of the participants who constitute the study population of the research and some data on the transition from online distance education to face-to-face education after the pandemic in the covid-19 pandemic were obtained by using the ‘‘Teacher Opinion Form About the Pandemic’’ developed by the researcher (see Appendix B). With this form, data were collected on whether the participants had adaptation difficulties when they switched to face-to-face education after the pandemic, the status of the pandemic in time management skills after the pandemic, the ability to use technological resources efficiently in face-to-face education after the pandemic, the ability to use technological tools efficiently in face-to-face education after the pandemic after doing distance education in the pandemic, which education model can be positive at which education level, and the flexibility of watching the course recording later in the pandemic.

3.4.3. Online Teacher Competencies Scale

In the third part of the study, ‘‘Online Teacher Competencies Scale’’ was used. In this study, ‘‘The Scale for Determining Teacher Roles and Competencies in Online Distance Education’’ was used for the data (Kavrat and Trel, 2013). The results of the exploratory factor analysis conducted to ensure the structural validity of this scale developed by Kavrat and Trel (2013) reveal that the scale is a 4-factor scale consisting of 20 items, each of which qualifies a different teacher's competence (zcan & Sara, 2020). The four roles in which these competences are collected are respectively named as ‘‘Communicator Role (Cronbach Alpha = 0.87)’’, ‘‘Technical Role (Cronbach Alpha = 0.90)’’, ‘‘Social Role (Cronbach Alpha = 0.82)’’ and ‘‘Pedagogical Role (Cronbach Alpha = 0.83)’’ (Kavrat & Trel, 2013) . The scale was prepared in 5-point Likert type. The response received from the participants for the 20 items created from the five likert type is as follows: I do not agree, I do not agree, I partially agree, I agree and I completely agree. The most positive category score of each participant is 5 and the most negative category score is 1 (1= Strongly disagree, 5= Strongly agree). Although there are no items scored inversely in the scale, the high scores to be obtained from the scale indicate that teacher opinions about the roles and competencies of teachers in online distance education are positively high (zden & Sara, 2020). The ‘Cronbach Alpha value’ obtained for the entire scale was found to be 0.94 by Kavrat and Trel (2013). In addition, the researchers of this scale, which has high reliability, roles and perceptions of teachers who teach in distance education that can be used for the identification of competencies suggests (zden & Sara, 2020) the reliability coefficient for the total scale to be 0,973 obtained within the scope of this research, the role of the technical communicator for the size of a sub-sub 0.95 for the size of 0,924 role ,social role and pedagogical role for the size of the size of the sub for sub 0,930 0,969 was calculated.

The following tables indicate the calculated Cronbach's Alpha value of the scale, its sub-dimensions and items, the Cronbach's Alpha value for its sub-dimensions and the Cronbach's Alpha value for the items individually.

Table 6*Reliability Statistics for the Online Teacher Competencies Scale*

<i>Reliability Statistics</i>	
Cronbach's	
Alpha	N of Items
,949	20

According to the related table 6, it was determined that the scale used in the study was Alpha=0.949 for Cronbach and it was seen that it has a high level of reliability according to this result. As a general information, Cronbach's Alpha coefficient varies between values between 0 and 1, and as it approaches 1, the reliability of the measurement increases and decays to, if $0,81 < a < 1,00$, the scale has a high level of reliability (Kılıç, 2016)

Table 7*Reliability Statistics for the Online Teacher Competencies Scale Sub-Dimensions*

Scale and Sub-Dimensions	Cronbach's Alfa	N of Items
Communicator Role	,896	7
Technical Rol	,902	6
Social Rol	,887	3
Pedagogical Rol	,942	4

According to the corresponding table 7 the Alpha value of the scale used in the study for Cronbach's Alpha was found to be 0.896 for the 'Communicative Role' sub-dimension, 0.902 for the 'Technical Role' sub-dimension, 0.887 for the 'Social Role' sub-dimension, and 0.942 for the 'Pedagogical Role' sub-dimension, and according to this result, it was found to have a high level of reliability. As a general information, Cronbach's Alpha coefficient varies between values between 0 and 1, and as it approaches 1, the reliability of the measurement increases and decays to , if $0,81 < a < 1,00$, the scale has a high level of reliability (Kılıç, 2016)

Since the 'Online Teacher Competencies' scale used in the scope of this research is the scale of Kavrat and Türel, and its validity and reliability have been made since there is no scale, it has not been subjected to exploratory factor analysis.

3.5. Collection of Data

The data used in the study were collected through an online questionnaire consisting of the items ‘Teacher Personal Information Form’ in the first part and ‘Teacher Opinion Form on Pandemic’ in the second part and ‘Online Teacher Competencies Scale in the third part (Kavrat & Türel, 2013)’ in the second part for the data used in the study. At the very beginning of the data collection process, teachers who conducted online distance education in the Covid-19 pandemic were identified and a data collection form was sent to 350 people who were still active in the teaching profession when they started face-to-face training after the pandemic. The information on how to fill out the forms is stated in detail (see Appendix A & Appendix B & Appendix C) As a result, data was collected from 350 people.

3.6. Analysis of Data

Data analysis was done with IBM SPSS 26.0 package program. The data obtained from the questionnaire and scale applied within the scope of the study were processed in accordance with the analysis carried out through the ‘IBM SPSS 26.0 Package Statistics Program’ and the findings and results section was created. Number and percentage for categorical variables, mean $\pm$ standard deviation or median for continuous variables, and range of quartiles were used to define the data. Conformity of continuous variables to normal distribution was evaluated with Kolmogorov-Smirnov or Shapiro-Wilk test. The Mann Whitney U test was used to compare continuous variables between two groups. The Kruskal Wallis H test was used for multi-group comparisons of continuous variables. Bonferroni correction was used after Kruskal Wallis H. A $p < 0.05$ level was considered statistically significant. The recommendations are written in accordance with these results. ‘Descriptive Statistics’ were used for the findings. The demographic information of the participants in the study was calculated as f and $\%$ and also shown in the ‘universe and sample’ section. Non-parametric tests were used because the ‘Online Teacher Competencies’ scale scores data applied for the research topic did not show a normal distribution (Büyüköztürk, 2009). Mann Whitney U test and Kruskal Wallis test were used because the data were not homogeneously distributed. When Table 8 is examined, it is seen that the communicator role, technical role, social role, pedagogical role and total role scores do not show normal distribution according to the results of Kolmogorov-Smirnov test ($p < 0.05$). When the box plot part of the histogram graph was examined, it was seen that it did not show normal distribution. Skewness

coefficient values were -1.27 for communicative role, -.613 for technical role, -.717 for social role, -1.15 for pedagogical role and -.899 for total role. Since Skewness and Kurtosis values of our data were not $= |\text{statistic}| < (\text{std.error}) \times 2$, non parametric tests were applied. These skewness and kurtosis values are as follows: Skewness value for Total -.899 and standard error 0.30×2 and Kurtosis Skewness value 0.901 and standard error 0.260, Skewness value for pedagogical role -1.223 and standard error 0.130×2 and Kurtosis value 1.262 and standard error 0.262×2 , Skewness value for social role -0.717 and standard error 0.130×2 and Kurtosis value -0.189 and standard error 0.260×2 , Skewness value for technical role -0.605 and standard error 0.130×2 and Kurtosis value -1.196 and standard error 0.260×2 , Skewness value for communicator role -1.271 and standard error 0.260×2 .

4. RESULTS

In this section, the findings related to the sub-problems of the research are given. In this section, frequencies and percentages of the demographic information of the participants are shown in the table. It was interpreted with the determined frequencies and percentages. The seniority of the participants, the grade level taught, the difficulty of adaptation to the pandemic process after face-to-face education, time management skills, the situation of using resources efficiently in face-to-face education after the technological pandemic, the ability to use technological tools in face-to-face education after the pandemic is expected to change after pre-school, primary education 1st stage and primary education 2nd stage. The answers and percentages of the questions on the availability of face-to-face, hybrid, online distance education options for the upper and lower levels of secondary education, the flexibility to watch live course recordings in the pandemic are in Table 9 and Table 8 was made to look at the normality distribution.

Table 8

Test Of Normality for Online Teacher Competencies Scale

	Communicator	Technique	Social	Pedagogy	Total
	Role	Role	Role	Role	
N	350	350	350	350	350
X	29,99	21,07	11,83	17,04	79,94
S	4,72	6,99	2,84	3,3	14,4
Median	31,00	22,10	11,8	17,00	79,9
Minimum	12,00	6,00	3,00	4,00	33,00
Maximum	35,00	30,00	15,00	20,00	100,00
Kolmogorov-Smirnov	.145	.107	.166	.182	.088
p	.000	.000	.000	.000	.000
Distortion	-1,27	-.613	-.717	-1,15	-.899

**p<0.05

Table 8 is examined, it is seen that the communicator role, technical role, social role, pedagogical role and total role scores do not show normal distribution according to the results of Kolmogorov-Smirnov test ($p < 0.05$) and see analysis of data in page 34.

Table 9

Analysis of Demographic Variables and Analysis of Teacher Opinion Form on Pandemic

		F	%
Year of Seniority	1-5 Years	104	%29.7
	6-10 Years	123	%35.1
	11-15 Years	62	%17.7
	16 Years and Over	61	%17.4
Grade	Preschool	76	%21.7
	Primary	84	%24.0
	Secondary	97	%27.7
	High School	93	%26.6
Face to Face After the Pandemic Difficulty Adapting to Education	Those who have difficulty adapting	142	%40.6
	Undecided	29	%8.3
	Those who do not have	179	%51.1

difficulty
adapting

Pandemic Process Time Management Skill Change	Increments	118	%33.7
	Decreases	55	%15.7
	What Has Not Changed	177	%50.6
Ability to Use Technological Resources Efficiently in Face-to-Face Training After the Pandemic	Increments	246	%70.3
	Decreases	7	%2,0
	What Has Not Changed	97	%27,7
Ability to Use Technological Tools in Face-to-Face Training After the Pandemic	Better users than before the pandemic	248	%70,6
	Those who have not changed their technology use skills	82	%23.7
	Unstable	20	%5,7
A Positive Educational Model For the Preschool Level Within the	Online	2	%0.6
	Face to Face	333	%95.1
	Hybrid	15	%4.3

**Foresight of Changes
After the Pandemic**

Primary Education Within the Framework of Post-Pandemic Change Prediction 1. A Positive Educational Model For the Echelon	Online	4	%1.1
	Face to Face	327	%93.4
	Hybrid	19	%5.4
2. Primary Education Within the Framework of Foreseeing Changes After the Pandemic. A Positive Educational Model For the Echelon	Online	4	%1.1
	Face to Face	293	%83.7
	Hybrid	53	%15.1
A Positive Educational Model For the Secondary Education Level in Anticipation of Changes After the Pandemic	Online	18	%5.1
	Face to Face	230	%65.7
	Hybrid	102	%29.1
The View of the Flexibility of the Student Who Cannot Attend the Course in the Pandemic to Monitor the Course Record	Yes	221	%63.1
	No	61	%17.4
	Unstable	68	%19.4

Total	350	100.0
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The demographic characteristics form of the teachers who participated in the study and the form of teachers' views on the pandemic are as follows ; 29.7% (104 people) have Deciority in the profession of 1-5 years, 35.1% (123 people) have deciority in the profession of 6-10 years, 17.7% (62 people) have Deciority in the profession of 10-15 years and 17.4% (61 people) have seniority in the profession of 16 years and above. 21.7% (76 people) are in the 'Pre-school (3-4 years old , 4-5 years old , 5-6years old) grade level ' , 24.0% (84 people) are in the ' Primary School (1. class , 2nd. class , 3rd.class , 4th.grade level)' on grade level, 27.7% of the population (97 people) ' Secondary school (5.class , 6th. class , 7th. class , 8th.grade level)' 26.6% of the population (93 people) are on grade level' or higher Secondary school (9. class , 10th.class , 11th. class , 12th.class)" consists of teachers who teach at the grade level. 40.6% (142 people), after face-to-face education adapt to living pandemic , %51.1 percent (179 people) live and face-to-face education after a pandemic without difficulty adaptation in %8.3% (29 people) pandemic is experiencing difficulties participants face-to-face education after undecided about whether adaptation occurs. 33.7% (118 people) of the participants had increased time management skills during the pandemic process, 15.7% (55 people) had decreased time management skills during the pandemic process, 50.6% (177 people) had unchanged time management skills during the pandemic process. %70.3 percent (246 persons) pandemic is a post-technological ability to use resources efficiently, increasing%2.0% (7 people) as a pandemic, the post-technological ability to use resources efficiently, decreasing%27,7 percent (97 people) pandemic is a post-invariant consists of the teacher participants the ability to use technological resources efficiently. .%70.6 percent (248 people) pandemic is a post-pandemic ago compared to increasing the ability to use technological tools , %23.7 percent (82 people) pandemic is a post-pandemic ago without experience compared to changes in the ability to use technological tools, 5,7% (20 people) pandemic is a post-pandemic ago compared to the ability to use technological tools for the change in teacher consists of undecided participants. %0.6'si'i (2 people) after a change in our education system if the pandemic online distance education class levels from pre-school they see fit , %95.1 percent (333 people), after face-to-face training from class levels pandemic if a change in our education system pre-school they see fit , and 4.3% (15 people) after a change in our education system if the pandemic hybrid training class levels from pre-school consists

of 350 participants with the response they see fit. .1.1% (4 people) use online distance education after the pandemic, if a change is foreseen in our education system, primary education from grade levels will be 1.93.4% (327 people) of whom they consider appropriate at the level of face-to-face education, although a change in our education system is envisaged after the pandemic, primary education from grade levels 1. 5.4% (19 people) of whom they consider appropriate for their level of hybrid education, if a change is foreseen in our education system after the pandemic, primary education from grade levels 1.the participants consist of 350 teachers who provide answers that they consider appropriate for their level.

1.1% (4 people) use online distance education after the pandemic, if a change is foreseen in our education system, primary education from grade levels to 2.83.7% (293 people) of whom they consider appropriate at the level of face-to-face education, although a change in our education system is foreseen after the pandemic, primary education from grade levels 2. 15.1% (53 people) of whom they consider appropriate for their level of hybrid education, if a change is foreseen in our education system after the pandemic, primary education from grade levels 2. %5.1 (18 people) online distance education class if a change after the pandemic in our education system at the secondary level from the level they consider appropriate in %65.7 percent (230 people) face to face education after the primary stage of a pandemic in our education system at the secondary level they consider appropriate from the class if you change the %29.1 percent (102 people) after a change in our education system if the pandemic hybrid training at the secondary level consists of 350 participants with appropriate responses from the class level teacher. .%63.1 (221 people) pandemic in the process of distance education students who are unable to attend a course for that class to the student after registering for the course as it progresses flexibility to watch live was thinking say yes , %17.4 percent (61 people) pandemic in the process of distance education students who are unable to attend a course after registering for the course live for that class, as the track progresses, the students not to think of those who said no flexibility of 19.4 percent (68 people) in the process of distance education students who are unable to attend a course of the pandemic that class to the student after registering for the course as it progresses to watch live for flexibility relating to, composed of 350 participants from over the fence (Table 9).

4.1. Online Teacher Role and Proficiency Levels in the Covid-19 Pandemic (n=350)

In the calculations made for online teacher roles and competencies after the Covid-19 Pandemic; communication score median 31 (range of quarters=28-34), median value of technical role 22 (range of quarters=18-25), median value of social role 12 (range of quarters=10-15), median value of pedagogical role of 18 (range of quarters) =16-20) and the median value of the total scale score was 81.5 (range of quarters=72-90) (Table 9).

Table 10

Online Teacher Role and Proficiency Levels in the Covid-19 Pandemic(n=350)

Scale Sub- dimensions	Communicator Role	Technique Role	Social Role	Pedagogy Role	Total
Value Range (min- max)	7-35	6-30	3-15	4-20	20-100
Median of Value Range	21	18	9	12	60
X	30,00	21,10	11,8	17,00	79,9
S	4.72	5,99	2,84	3,3	14,4
Median	31,00	22,00	12,00	18,00	81,5
Minimum	12,00	6,00	3,00	4,00	33,00
Maximum	35,00	30,00	15,00	20,00	100,00
25% Quarterly	28	18	10	16	72
Quarterly	34	25	15	20	90

In the calculations made for online teacher roles and competencies after the Covid-19 Pandemic; communication score median 31 (range of quarters=28-34), median value of technical role 22 (range of quarters=18-25), median value of social role 12 (range of quarters=10-15), median value of pedagogical role of 18 (range of quarters) =16-20) and the median value of the total scale score was 81.5 (range of quarters=72-90) (Table 10).

4.2. Comparison of Online Teacher Roles and Competencies According to Survey Questions in Covid-19 Pandemic (n=350)

Table 11

actor			Communicative Role		Technique Role		Social Role		Pedagogical Role		Total	
		n	X± S	M*	X± S	M*	X± S	M*	X± S	M*	X± S	M*
Seniority	1-5 years	104	30.9±3.3	31 (28-34)	21.99±4.9	22 (19-25)	12.53±2.3	12 (12-25)	17.72±2.6	19 (16-20)	83.17±10.27	83.5(76-90.7)
	6-10 years	123	29.9±5.16	31 (28-34)	20.9±6.35	22 (18-25)	11.77±2.97	12 (10-15)	16.94±3.43	18 (16-20)	79.5±15.37	81 (72.7 -89.2)
	11-15 years	62	28.95±5.28	29 (25-34)	20.17±6.67	21 (14,93-25,1)	11.32±3.14	12 (9 -15)	16.7 ± 3.57	17.5 (14.7 - 20)	78.5 (63.25- 91.16)	77.1± 16.65
	16 and above	61	29.63±5.13	32 (26-34)	21.02±6.15	22,7 (18-25)	11.29±2.93	12 (9 -14)	16.26 ±	16 (15-20)	78.20 ±	80 (70-90)
Test Statistics			4.569		2.087		9.689		6.539		5.735	
p&			0.206		0.555		0.021 [§]		0.088		0.125	
Grade	Pre-scholl	76	30.02± 4.285	31 (28-33.1)	20.18 ±6.123	21.5 (17.25-24)	12.04 ±2.69	12 (11-14)	17.21 ± 3.2	18 (16-20)	79.46 ± 12.99	80.5 (73 -88.82)
	Primary School	84	29.91±5.84	31.57 (26.25-35)	21.86 ± 6.20	22.14 (19-27)	11.84±3.03	12 (9.25-15)	16.86 ± 3.6	18 (16-20)	80.47 ± 17.25	83 (73.99 – 96)
	Secondary School	97	30.63±4.28	32 (28-34)	21.33± 5.83	23 (17.35-25.5)	11.72±3.13	12 (9-15)	17.15 ± 3.29	18 (16-20)	80.83 ± 14.44	83 (71.47 ± 92.4)
	High Schhool	93	29.37±4.36	29 (26-33)	21±5.82	22 (18-24)	11.76±2.5	12 (10-14)	16.82 ± 3.04	16 (16-20)	78.94 ± 12.76	80 /72.5 -88)
Test Statistics			5.972		3.076		0.999		1.687		3.537	
p&			0.113		0.380		0.801		0.640		0.316	
After the Pandemic Harmony the Difficulty	Those Whi Have DifficultyAdapting	142	29.75±5	31 (27-34)	20.65±6.41	22 (16.75 – 24.25)	11.67 ± 2.89	12 (9-15)	17.05 ± 3.07	17 (16-20)	79.06 ± 15.11	80.5 (71.90)
	The Undecided	29	29.45±4.44	30 (27 – 33.45)	21.48 ±5.93	23 (18-26)	11.32 ± 2.88	12 (9.5-13.40)	16.38 ± 3.61	16 (14.5 - 20)	78.63 ± 13.20	79.92 (71.5 – 86.35)
	Those Whi Do Not Have Adjustment Difficulties	179	30.31±4.55	31 (28 – 34.12)	21.43 ±5.65	22 (18.68-25)	12.04±2.80	12 (10.8-15)	17.08 ± 3.39	18 (16-20)	80.86 ± 14.05	82.79 (74.12 -91.40)
Test Statistics			2.257		0.852		3.053		1.551		1.906	
p&			0.323		0.653		0.217		0.460		0.386	
Pandemic Process Time Management Skill Change	The Leftlovers	118	30.43 ± 5.175	32 (28-35)	22.39±5.75	23.14 (19.53-	12.39±2.66	12 (12-15)	17.32 ± 3.24	18 (16-20)	82.5 ±15.12	84.82 (76.18 – 95)
	The Diminituves	55	30.20 ± 4.35	31 (28-35)	21.6 ± 5.67	23 (18-26)	12.08 ±2.51	12 (11-15)	17.04 ±2.63	17.12 (16- 20)	80.92 ±12.66	81.26 (71-90)
	Those Who Have Not Changed	177	29.63 ± 4.52	30.14 (27-33)	20.11 ± 6.09	21 (17-24)	11.39 ± 3	12 (9-14)	16.79 ±3.48	17 (16-20)	77.91 ± 14.21	80 (69.98 -89)
Test Statistics			6.117		11.095		9.480		2.759		10.677	
p [§]			0.047 [€]		0.04 [€]		0.009 [§]		0.252		0.005 [§]	
Ability to Use Technological Resources Efficiently in Face-to-Face Education After a Pandemic	The Leftlovers	246	30.23 ± 4.84	31 (28-34.1)	21.51 ± 6.11	23 (18-26)	12 ±2.81	12 (10.85 – 15)	17.19 ± 3.19	18 (16-20)	80.94 ± 14.76	82 (75-91.15)
	The Diminituves	7	27.7 ±6.72	28 (21-35)	20 ± 8.43	20 (15-30)	11.26 ±3.81	12 (9-15)	16.71 ± 3.5	18 (12-20)	75.68 ± 21.74	78.80 (60-100)
	Those Who Have Not Changed	97	29.55 ± 4.54	29 (26-34)	20.1 ±5.4	20 (17.85-24)	11.44 ± 2.84	12 (9-14)	16.56 ± 3.46	16 (16-20)	77.73 ± 12.71	78 (69-87)
Test Statistics			4.617		6.776		3.919		3.256		7.522	
p [§]			0.099		0.034 [€]		0.141		0.196		0.023	

* M = Median (Quarters Span)

[§] Kruskal Wallis H Test

[€] Mann Whitney U Test

[§] 1-5 years and 16 and above

[€] Incremental and Unchanged

[§] Better Users and Undecided

^Ω Undecided and No Change

[£] Yes and Undecided

Ability to Use Technological Tools in Face-to-Face Education After the Pandemic	Those Who Use It Better Than Before The Pandemic	247	30.20 ± 4.74	31 (28-34)	21.53±5.87	22.74 (18-26)	11.99±2.80	12 (10.85-15)	17.28 ± 3.06	18 (16-20)	81 ± 14.34	83 (75-91)
	Unstable	20	26.95±5.5	28 (23.5-30)	20.17±6.33	21.5 (17.17-24)	11.08 ± 2.56	11.5 (9-12)	15.25 ± 3.77	16 (12.75 – 17.53)	73.45 ± 16.22	73.5 (64.60 -82.53)
	Those Who Do Not Have Changes In The Ability To Use Technology	83	30.09 ± 4.29	31 (27.95 -34.13)	20.12 ±6.17	20 (15-24)	11.5 ± 3.03	12 (9-15)	16.61 ± 3.62	16.11 (16.20)	78.36 ±13.79	79 (68-88)
Test Statistics			8.418		4.492		4.116		8.009		8.129	
p [®]			0.014 ¥, Ω		0.106		0.128		0.01 ¥		0.017 ¥	
The Education Model Found Positive For the Preschool Level After the Pandemic	Online Remote	2	24.5 ± 4.95	24.5 (21 -24.5)	18 ± 0	18 (18-18)	10.5 ± 2.12	10.5 (9- 10,5)	14 ± 2.83	14 (12-14)	67 ± 9.9	67 (60-67)
	Face to Face	333	29.99 ± 4.70	31 (28-34)	21.18 ±5.95	22 (18-25)	11.83 ±2.84	12 (10-15)	17 ± 3.3	18 (16-20)	80.01 ± 14.37	81.26 (72- 90.06)
	Hybrid	15	30.82 ±5.05	32 (28-35)	20.02 ±7.17	22 (15-25)	11.99±3.08	12 (10.8-15)	17.4 ± 2.75	18 (15-20)	80.22 ± 15.94	87 (69-88.86)
Test Statistics			2151.0		2290.5		2364.5		2425.5		2386.5	
p [®]			0.360		0.586		0.722		0.845		0.771	
Primary Education After the Pandemic 1. The Education Model Found Positive For the Echelon	Online Remote	4	27.31 ± 5.42	27.06 (22.28 – 32.6)	20.25 ± 8.96	21 (11.25 28.5)	11.25 ±2.88	10.5 (9-14.25)	16 ± 3.27	16 (13-19)	74.81 ± 18.74	70 (60 – 94.35)
	Face to Face	327	29.98 ± 4.64	31 (28-34)	21 ± 5.91	11 (18-25)	11.83 ±2.82	12 (10-15)	17 ± 3.29	18 (16-20)	79.84± 14.13	81 (72-90)
	Hybrid	19	30.97 ±5.98	32.26 (28 -35)	22.9 ± 6.63	24 (19-28)	12.05 ±3.44	12 (12-15)	17.10 ± 3.27	18 (16-20)	82.76 ±18.51	88 (76-98)
Test Statistics			2495.5		2399.0		2790.5		3072.5		2446.5	
p [®]			0.147		0.094		0.447		0.934		0.119	
Elementary Education After the Pandemic 2. The Education Model That Was Found Positive For the Echelon	Online Remote	4	28.78 ± 6.88	29.5 (22 -34.7)	21.60±5.90	19.7 (17.25 - 27.85)	12 ± 3.46	12 (9-15)	16.5 ± 4.12	17 (12.5 -20)	78.88 ± 19.29	78.2 (61.25 -97.2)
	Face to Face	293	29.99 ±4.6	31 (28-34)	21.13 ± 5.86	22 (18-25)	11.87 ± 2.75	12 (10-15)	17.08 ±3.23	18 (16-20)	80.06 ±13.90	81 (72.85-90)
	Hybrid	53	30 ±5.26	32 (27.5 -35)	21 ±6.70	22 (18-26.1)	11.58 ± 3.35	12 (9.3-15)	16.65 ±3.54	17 (15-20)	79.34 ± 16.98	84 (69-89.2)
Test Statistics			7337.0		7620.5		7677.5		7203.0		7518.5	
p [®]			0.521		0.830		0.895		0.387		0.713	
The Education Model Found Positive For the Secondary Education Level After the Pandemic	Online Remote	18	29.48 ±4.79	30 (26 -34.1)	20.63 ±7.12	22 (16-25.8)	11.77± 2.77	12 (9-14.25)	16.67 ± 2.96	16 (14-20)	78.5 ± 14	79 (68.7-88.2)
	Face to Face	230	30 ±4.69	31 (28-34)	20.9 ± 6.03	22 (18-25)	11.76 ±2.90	12 (9.60-15)	17.06 ±3.35	18 (16-20)	79.90 ± 14.54	81 (72-91)
	Hybrid	102	29.85 ±4.84	30 (27.75-34)	21.52 ± 5.69	22 (19-25)	12 ± 2.83	12 (11 -15)	16.94 ± 3.20	17 (16-20)	80.3 ± 14.34	82.35 (74.28-89.09)
Test Statistics			0.444		0.402		0.931		1.024		0.533	
p [®]			0.801		0.818		0.628		0.599		0.766	
The Opinion of the Flexibility of the Student who Cannot Attend the Lesson in the Pandemic to Be Able to Watch the Lesson Recording	Yes	221	30.44± 4.4	31 (28-34)	21.21±5.95	22 (18-25)	12.16 ± 2.65	12 (11-15)	17.24 ± 3.1	18 (16-20)	81.05 ± 13.61	82 (74.84 -90.56)
	Unstable	68	29.40±5.12	30 (26.25-35)	21.04 ±5.99	22(18-25)	11.24 ±2.96	12 (9- 13.85)	16.6 ± 3.4	17 (14.25 -20)	78.29 ± 15.37	80 (67.5 – 89)
	No	61	29.01 ±5.23	30 (26-33)	11.32±3.24	22.74 (17-24.5)	11.32±3.24	12 (9-15)	16.62 ± 3.72	16.25 (16-20)	77.79 ± 15.95	80 (68-90)
Test Statistics			4.499		0.087		6.688		1.833		2.855	
p [®]			0.105		0.957		0.035 [¢]		0.400		0.240	

* M = Median (Quarters Span)

[®] Kruskal Wallis H Test

[®] Mann Whitney U Test

[®] 1-5 years and 16 and above

[®] Incremental and Unchanged

[®] Better Users and Undecided

[®] Undecided and No Change

[®] Yes and

A statistically significant difference was found between the groups formed according to seniority (1-5 years, 6-10 years, 11-15 years, 16 and above) in terms of "social role" sub-dimension scores ($p=0.021$). In the advanced pairwise (post Hoc) analyzes, it was found that the difference was due to the comparison of the 1-5 years group and the 16 years and over groups. A statistically significant difference was found between the groups (increasing, decreasing, unchanging) formed according to the change in time management skill in the pandemic process in terms of "Communicator Role", "Technical Role", "Social Role" sub-dimensions and scale total score. ($p=0.047$, $p=0.04$, $p=0.009$ and $p=0.005$). In the post hoc analyzes performed, it was found that the difference was due to the comparison of the groups whose time management skills increased after the pandemic and those whose time management skills did not change. After the pandemic, a statistically significant difference was found between the groups formed according to the ability to use technological resources efficiently in face-to-face education (increasing, decreasing, unchanged) in terms of the "Technical Role" sub-dimension and the total score of the scale ($p=0.034$), (0.023). In advanced pairwise (post hoc) analyzes, it was found that the difference was due to the comparison of the group whose time management skills increased after the pandemic and the group that did not change. Among the groups formed according to the Ability to Use Technological Tools in Face-to-face Education after the Pandemic (those who use better than before the pandemic, those who are undecided, those who do not have a change in their technology use skills), "Communicator Role", "Pedagogical Role" sub-dimension and "Total Scale Score" A statistically significant difference was found in terms of " score ($p=0.014$, $p=0.01$, $p=0.017$). In the post hoc analyzes conducted for the "Communicator Role" sub-dimension, it was found that the difference resulted from the comparison of "better users and undecided" versus "undecided" and "unchanged" groups. In the post hoc comparisons made for the "Pedagogical Role" sub-dimension, it was found that the difference was due to the comparison of the "better users" and "undecided" groups. In advanced pairwise (Post Hoc) comparisons for "Total Scale Score", it was found that the difference was due to the comparison of "better users and undecided" groups. A statistically significant difference was found between the groups who gave the answer "Yes", "I am undecided" and "no" in terms of the scores in the "Social Role" sub-dimension ($p=0.035$). In advanced pairwise (post hoc) analyzes, it was found that the difference was due to the comparison of the groups that answered "yes" and "I am undecided" (Table 11).

5. DISCUSSION

In our evaluation of online teacher roles and competencies in the Covid-19 Pandemic, we found that the "communicator role" sub-dimension had the best score, and the most competent part of the participants was the "communicator role". Therefore, we can say that we found it in the "Communicator Role" sub-dimension in the study. In our study, we saw the evaluation of "social role" as the second best sub-dimension evaluation. However, we found that the values obtained in all sub-dimensions were above the median value of the sub-dimensions. We concluded that the evaluation was useful. The pandemic has changed teachers at the point of "communicator role". It was an expected situation that the "communication role" sub-dimension in online teacher role proficiency would have a high score. Due to the pandemic, teachers' communicator roles in online education were found to be the highest in points. As a result of the pandemic, a value above the expected median value (median) was reached in all sub-dimensions. While the expected value range for the "communicator role" of the pandemic was 21, it was found to be 31. While the median expected value for "technical role" was 18, it was 22 above 18. While the median expected value for "social role" was 9, it was found to be 12 above 9. While the median expected value for "pedagogical role" was 12, it was found 18 over 12. While the expected median value for the expected scale total score for all roles was 60, it was found to be 81.5 above 60. It can be said that the pandemic has developed online teacher roles and competencies and has forced teachers to develop their online roles and created an opportunity to improve their online roles and competencies in online education, which was carried out as an "emergency plan" as a result of this epidemic that affected the whole world. The fact that they are not physically in the same environment during the pandemic process may have caused them to strengthen their communicator roles even more in terms of not being able to use body language and in order to express themselves better. When we examine in terms of social role sub-dimension among the groups formed according to seniority (1-5, 6-10, 11-15 and 16 years and above), the scores of people with 1-5 years of seniority are higher than those of people with 16 years or more seniority. score is displayed. It was concluded that young people, that is, people with less seniority in the profession, are more prone to many things used online due to their age. As a result of the advanced pairwise comparisons we made, we found that the significant difference we found in terms of communication, technical, social sub-dimensions and total scale scores between the groups created according

to the time management skill change of the pandemic process (increasing - decreasing and unchanged) was due to the increasing and unchanged groups. In terms of this feature, we saw that the score belonging to the group formed by the increments had higher scores than the group belonging to the unchanging ones. We observed that the high scores in all sub-dimensions and the total scale score increased the time management skill change in the pandemic process. In advanced pairwise (post hoc) comparisons, it was found that the difference was due to the comparison of the groups of those whose time management skills increased after the pandemic and those who did not change (Table 11). As a result of the descriptive statistics, it is seen that the increase is 118 people. Among the participants participating in the research, it is seen that the time management skills of 118 people increased in online teacher competencies out of 350 people. Time management is expected to be better due to the excess of usage time during the pandemic period. According to Table 11, a statistically significant difference was found between the groups formed according to the Ability to Use Technological Resources Efficiently in Face-to-face Education after the Pandemic, in terms of the scores in the "Technical Role" sub-dimension and the total score of the sub-dimensions ($p=0.034$), (0.023). Those who increased their ability to use technological resources efficiently after the pandemic constitute 70.3% with 246 people (Table 9). The fact that schools were held face-to-face and online or hybrid until March 2020 and 2022, which is the "emergency education plan" process of online teacher qualification after the pandemic, made it possible to develop this skill. There was a statistically significant difference in terms of "Communicator Role" and "Pedagogical Role" and sub-dimension and "Total Scale Score" among the groups (increasing – decreasing and unchanged) formed according to the Ability to Use Technological Tools in Post-Pandemic Face-to-face Education. difference was found ($p=0.014$, $p=0.01$), ($p=0.017$) (table 11). The ability to use technological tools in face-to-face education after the pandemic is 70.6%, with the response of 247 people, who used it better than before the pandemic (Table 9). The reflection of the intensive use of technological tools used due to the epidemic in the pandemic to the post-pandemic period is that this skill has increased. It was an expected situation in terms of research results. A statistically significant difference was found between the groups who gave the answer "Yes", "I am undecided" and "No" in terms of the scores in the "Social Role" sub-dimension ($p=0.035$). Regarding the view that being able to watch the course recording is a flexibility, 221 people say "Yes" with a rate of 63.1%, and it is seen that the opportunity to watch the "Course Record" provides flexibility according to the teachers

(table 9). A high rate of "yes" answers was expected for the flexibility of watching the lecture recording. When the descriptive statistics results are examined, it is seen that the participants, namely the teachers, when they are ranked according to the secondary education level starting from the pre-school level, give a higher response that online education and hybrid education can be taken as a post-pandemic model as the class level taught (table 9). For this point of view, we can say the following; It has been observed that as the age group gets smaller, the number of answers for the appropriate education model increases as the age group where the appropriate education model is face-to-face increases. It can be said that the number of educators who find this descriptive statistic result suitable for "Hybrid Education" To summarize, the conclusion reached for our sub-problems is as follows. Which one has the highest score among the online teaching qualifications and roles of teachers providing 'Online Distance Education' during the Covid-19 epidemic? The Communicator Role has the highest score. Have teachers' skills in using technological tools increased after the COVID-19 pandemic? It was concluded that these skills increased with a rate of 70.6%. Which of the education models deemed appropriate for teachers' education levels after the pandemic is hybrid education suitable at what level? As the age group increased, the rate of finding hybrid education suitable increased. Face-to-face education has the highest percentage at all levels. Hybrid education and distance education are not considered suitable for the younger age group. In addition, according to the master's thesis study in 2020, which is the only research on the pandemic in the literature, physical education teachers' online remote teacher role and competence perceptions in education are high, and these roles and competences perceptions did not differ according to gender and length of teaching experience, but age between teachers' perceptions of their roles and competences, but it is suggested that future research should focus on whether teachers' perceptions of these roles and competences are reflected in practice (Özcan & Saraç , 2020). To summarise, according to the survey questions, based on the answer to the question of whether there is a significant relationship between online teacher roles and competencies in the Covid-19 pandemic, a value above the expected median value (median) was reached in all sub-dimensions as a result of the pandemic and it was above the average. It is thought that this thesis study can be a pioneering study for the studies to be investigated for teacher competences in the periods when distance education should be carried out.

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APPENDICES

APPENDIX A: DEMOGRAPHIC INFORMATION FORM FOR TEACHERS

1	Öğretmenlik mesleğindeki kıdem yılınız nedir? ☐ 1-5 Yıl ☐ 6-10 Yıl ☐ 11-15 Yıl ☐ 16 Yıl ve üzeri
2	Okuttuğunuz sınıf seviyesi nedir? ☐ Okul Öncesi (3-4 yaş , 4-5 yaş , 5-6 yaş) ☐ İlkokul (1. sınıf , 2. sınıf , 3.sınıf , 4. sınıf) ☐ Ortaokul (5.sınıf , 6. sınıf , 7. sınıf , 8. sınıf) ☐ Lise (9. sınıf , 10.sınıf , 11. sınıf , 12. sınıf)

APPENDIX B: TEACHER OPINION FORM ABOUT THE PANDEMIC

1	Pandemi sonrası yüz yüze eğitime geçince uyum güçlüğü yaşadınız mı? () Uyum güçlüğü yaşadım. () Kararsızım. () Uyum güçlüğü yaşamadım.
2	Pandemi süreci zaman yönetimi becerinizde bir değişikliğe neden oldu mu? () Zaman yönetimi becerim arttı. () Zaman yönetimi becerim azaldı. () Zaman yönetimi becerim değişmedi.
3	Pandemi sonrası yüz yüze eğitime geçtikten sonra teknolojik kaynakları (öğretim materyalleri, destek materyaller, web kaynakları vb.) verimli kullanabilme becerinizde değişim oldu mu? () Verimli kullanabilme becerim arttı. () Verimli kullanabilme becerim azaldı. () Verimli kullanabilme becerim değişmedi.
4	Çevrimiçi Uzaktan Eğitimden sonra yüz yüze eğitime geçildiğinde teknolojik araçları pandemi öncesine göre daha iyi kullanabildiğinizi düşünüyor musunuz? () Teknolojik araçları pandemi öncesine göre daha iyi kullanıyorum. () Teknoloji kullanım becerimde bir değişiklik olmadı. () Kararsızım
5	Pandemi sonrasında eğitim sistemimizde bir değişiklik öngörülse hangi kademe için hangi eğitim modelinin yürütülmesini olumlu bulursunuz? Okul Öncesi () Çevrimiçi Uzaktan Eğitim () Yüz Yüze Eğitim () Hibrit İlköğretim 1. Kademe () Çevrimiçi Uzaktan Eğitim () Yüz Yüze Eğitim () Hibrit İlköğretim 2. Kademe () Çevrimiçi Uzaktan Eğitim () Yüz Yüze Eğitim () Hibrit Ortaöğretim () Çevrimiçi Uzaktan Eğitim () Yüz Yüze Eğitim () Hibrit
6	Pandemi sürecinde derse katılmayan öğrencinin o derse yönelik canlı ders kaydını (herhangi bir yer veya zaman içerisinde) izleyebilmesini öğrenciye sağladığı bir esneklik olduğunu düşünüyor musunuz? () Evet () Hayır () Kararsızım

**APPENDIX C: ONLINE DISTANCE EDUCATION TEACHER ROLES AND
COMPETENCIES SCALE (Kavrat & Türel , 2013)**

Sıra	Aşağıdaki maddeleri okuyarak size en uygun gelen seçeneği işaretleyiniz. 1- Kesinlikle Katılmıyorum 2- Katılmıyorum 3- Kısmen Katılıyorum 4- Katılıyorum 5- Kesinlikle Katılıyorum					
1	E-postayı etkili kullanırım.	1	2	3	4	5
2	Uygun bilgilendirme (post) yaparım	1	2	3	4	5
3	Öğrencileri verimli bir şekilde dinlerim.	1	2	3	4	5
4	Öğrenci ilgisini çekerim.	1	2	3	4	5
5	Egzamanlı iletişim araçlarını (Skype, sohbet v.t.) etkili kullanırım.	1	2	3	4	5
6	Öğrencilere açık ve anlaşılır bir yol haritası sunarım.	1	2	3	4	5
7	Çevrimiçi uygun ve etkili diyalog kurarım.	1	2	3	4	5
8	ÖYS'deki "gruplar" modülünü (grup çalışmaları için) kullanırım.	1	2	3	4	5
9	ÖYS'deki takvim (çalışma) modülünü kullanırım.	1	2	3	4	5
10	Öğrenme yönetim sistemindeki (ÖYS) içeriği düzenlerim.	1	2	3	4	5
11	ÖYS'deki çeşitli etkinlik (AçıkYapı) araçlarını (Not tutma, çevrimiçi sohbet, Wiki, Blog gibi) kullanırım.	1	2	3	4	5
12	Sisteme gelişmiş dosya (grafik, ses, video v.t.) yükleme (upload) özelliğini kullanırım.	1	2	3	4	5
13	Web sayfaları oluşturabilir ve basit düzenlemeler yaparım.	1	2	3	4	5
14	Öğrencilerin; öğretmen ve diğer öğrencilerle çevrimiçi öğrenme ilişkileri kurabilmelerini sağlarım.	1	2	3	4	5
15	Öğrencilerin; bir öğrenme topluluğu geliştirme, sürdürme ve desteklemelerini sağlarım.	1	2	3	4	5
16	Öğrencilerin; çevrimiçi eğitime karşı olumlu bakış açısı geliştirmelerine katkıda bulunurum.	1	2	3	4	5
17	Ders sonrasında yapılması gereken işlemleri başarıyla tamamlarım.	1	2	3	4	5
18	Ders süresinde yapılması gereken işlemleri başarıyla tamamlarım.	1	2	3	4	5
19	Çevrimiçi sınıfta olumlu bir öğretmen profili oluştururum.	1	2	3	4	5
20	Çevrimiçi soru sorma tekniklerini etkili biçimde kullanırım.	1	2	3	4	5

APPENDIX D: ETHIC COMMITTEE REPORT



T.C.
YEDİTEPE ÜNİVERSİTESİ REKTÖRLÜĞÜ
Avrupa Çalışmaları Enstitüsü Müdürlüğü



Sayı : E.61350595-050.06-344
Konu : Özge Özkoç'un Etik Kurul Onayı Hk.

15.01.2024

İLGİLİ MAKAMA

Üniversitemiz Eğitim Bilimleri Enstitüsü Bilgi Teknolojileri ve Sosyal Medya Eğitimi Programı yüksek lisans öğrencilerinden Özge Özkoç'un Prof. Dr. Gonca Kızılkaya danışmanlığında gerçekleştireceği 'Çevrimiçi Öğretmen Rol ve Yeterliklerine Göre Pandeminin Öğretmenler Üzerindeki Etkilerinin İncelenmesi' başlıklı araştırmasının Beşeri Bilimler Etik standartlarına uygunluğuna ilişkin Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu onayı ekte sunulmuştur.

Gerekli iznin verilmesi hususunu bilgilerinize arz ve rica ederim.

Prof. Dr. Fatma Yeşim EKİNCİ
Rektör Yardımcısı

Ek: 26122023 Sosyal Bilimler Etik Kurul Kararları.pdf

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YEDİTEPE ÜNİVERSİTESİ BEŞERİ VE SOSYAL BİLİMLER

ETİK KURUL KOMİSYONU

26.12.2023 TARİHLİ

46/2023 No'lu TOPLANTI KARARLARI

7) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü Eğitim Yönetimi ve Denetimi Programı yüksek lisans öğrencilerinden Seval Arslan'ın *'İlkokul Öğretmenlerinin, Narsistik Eğilimleri ile Değer Tercihleri Arasındaki İlişkinin İncelenmesi'* başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu, Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.

8) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü Rehberlik ve Psikolojik Danışmanlık Programı yüksek lisans öğrencilerinden Elif Aktaş'ın *'Üniversite Öğrencilerinin Öz Şefkat ve Bilişsel Esneklik Düzeylerinin İlişki Doyum Düzeyleri Üzerindeki Yordayıcı Rollerinin İncelenmesi'* başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu, Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.

9) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü Rehberlik ve Psikolojik Danışmanlık Programı yüksek lisans öğrencilerinden Ayşe Çokyavaş'ın *'Üniversite Öğrencilerinin Toplumsal Cinsiyet Rollerine İlişkin Tutumlarının ve Psikolojik İyi Oluş Düzeylerinin Romantik İlişki Doyum Düzeyleri Üzerindeki Yordayıcı Rollerinin İncelenmesi'* başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu, Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.

10) Yeditepe Üniversitesi Eğitim Bilimleri Enstitüsü Bilgi Teknolojileri ve Sosyal Medya Eğitimi Programı yüksek lisans öğrencilerinden Özge Özkoç'un *'Çevrimiçi Öğretmen Rol ve Yeterliklerine Göre Pandeminin Öğretmenler Üzerindeki Etkilerinin İncelenmesi'* başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu, Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.

11) Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü İnsan Kaynakları Yönetimi Programı yüksek lisans öğrencilerinden Tuğba Aydın'ın *'The Impact of Talent Management Practices on Organizational Commitment'* başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu, Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.

12) Yeditepe Üniversitesi İletişim Fakültesi Radyo Televizyon ve Sinema Bölümü öğretim üyelerinden Arş. Görevlisi Dr. Elif Karakoç Keskin'in *'Algoritmik Medya İçeriği Farkındalık Ölçeğinin Türkçe Uyarlaması'* başlıklı araştırmasının Beşeri Bilimler etik standartlarına uygunluğu, Yeditepe Üniversitesi Beşeri ve Sosyal Bilimler Bilimsel Araştırma ve Yayın Etik Kurulu tarafından değerlendirilmiş ve onaylanmıştır.