

The Ministry of Education of Azerbaijan Republic

Khazar University

Faculty: Graduate School of Science, Art and Technology

Department: Education

Specialty: Educational Administration

Master Thesis

Theme: Perceptions of teachers of online teaching and learning during pandemic

Master Student : Masuda Namazova

Supervisor : Dr.Lala Ganiyeva

Baku-2022

ABSTRACT

It has been more than 1.5 years since the pandemic and quarantine process due to the Covid-19 virus began. With the increase in cases, one of the measures taken was the closure of schools and the transition to distant learning. One of the occupational groups that had to adapt the fastest in this process was teachers. In a process that they had almost never experienced before, they continued to both lead their own lives and work for the education of the students they were responsible for. It would not be wrong to say that they have experienced a very rapid adaptation under these difficult conditions.

Especially in these days when the use of online lessons has increased tremendously with the COVID-19 epidemic, the efforts of the instructors who encountered these systems for the first time to produce their own solutions, both technically and pedagogically, are admirable.

The main purpose of this study is to reveal metaphoric perceptions of teachers of distant learning during COVID-19 pandemic_. Generating the knowledge about this critical period has given us insight that can be useful. I hope it provides a useful information and way of thinking for readers as well.

CONTENTS

Abstract

List of tables

Abbreviation

CHAPTER 1. INTRODUCTION

CHAPTER 2. LITERATURE REVIEW

CHAPTER 3. METHODOLOGY

3.1. Research Model

3.2. Sample

3.3. Forms and Questionnaires

3.4. Validity and Reliability

3.5. Data analysis

CHAPTER 4. FINDINGS

Metaphors and Categories regarding the Concept of Distant learning

CHAPTER V. DISCUSSION AND CONCLUSIONS

ABBREVIATION

UNESCO - United Nations Educational, Scientific and Cultural Organization

ILO – International Labour Organization

EIA – Education Information Network

IBAP – Instituto da Biodiversidade e das Áreas Protegidas (Institute of Biodiversity and Protected Areas)

KMO – Kaiser – Meyer – Olkin

CHAPTER 1. INTRODUCTION

With the notification of the new type of coronavirus infection (Covid-19) to the World Health Organization in Wuhan, China on 31 December 2019, the existence of a virus threatening the whole world was recognized. This epidemic, which started in China, turned into a pandemic that affected the whole world after a while. The pandemic has made it mandatory for countries to take steps in many areas, especially educational institutions, in order to prevent the spread of the epidemic.

The coronavirus (Covid-19) pandemic has affected all areas, especially health, social life, education and economy in our country as well as all over the world. It is seen that the measures taken to protect human health appear as a new way of life and make it necessary to live in this way. Curfew restrictions, travel restrictions, diluting crowded environments, quarantine processes and closure of schools are the leading measures taken.

The coronavirus (Covid-19) pandemic has affected education as well as all fields and changed the way of perspective and interpretation of education (Bozkurt and Sharma, 2020). Most countries had to suspend face-to-face education activities.

Today, a global epidemic is being fought and as a result of this situation, which has spread rapidly to the world, some disruptions have been experienced in education and training activities. Countries had to take a break from face-to-face education and include all students in a system they already use. Students who received education on the one hand and teachers on the other hand were affected by the methods and practices known as distant learning and tried to keep up with the situation.

As a quick solution to the crisis caused by the COVID-19 epidemic, educational institutions structured according to face-to-face education started to work immediately in order to continue the courses and programs with web-based distant learning instead of face-to-face education, and quickly switched to distant learning (Gewin 2020; Lau, Yang, & Dasgupta, 2020). Since this transition was realized very

quickly, no evaluation could be made for teachers as well as for students to adapt to the requirements of distant learning (Iyer, Aziz, & Ojcius, 2020). With the developing information and communication technologies, both learner needs, curricula and teaching strategies, methods and techniques are in constant change and development. These developments create changes in the needs and expectations of students, the function of education, teaching methods and teacher roles. Therefore, what is expected from teachers today is to adapt to changes such as distant learning and to have the knowledge and skills to meet the needs of today's students (Orhan & Akkoyunlu, 1999). Although the internet and computer have been used later in our country compared to European countries, the use of the internet and computer has spread rapidly and has made great progress in distant learning (Altash, 2016). The young population we have is one of our most important advantages in terms of easy adaptation to distant learning in our country (Yamamoto & Altun, 2020). Perceptions and opinions of teachers about the distant learning process are considered to be one of the factors that affect the efficiency of distant learning (Bashar et al., 2019). Considering that teachers' self-development in online environments and their motivation will positively affect students' thoughts towards online learning (Machado, 2007), it is thought that the perceptions and opinions of teachers about this process, as well as for students, are a way to determine the course of distant learning activities and increase efficiency.

With the implementation of distant learning teachers, students and parents were faced with a system they were not accustomed to. With this process, much more work fell on teachers. While transforming their own knowledge and experience into distant learning, they also carried out orientation activities by guiding students and parents. Perceptions about distant learning are an important factor for distant learning activities to be efficient (Bashar et al., 2019).

Distant learning has taken its place in education with the opportunities provided by information and communication technologies. Clark (2020, 411), distant learning from past to present letters, radio, book, newspaper, etc. reminds that it is

carried out with tools. For this reason, distant learning is not a concept that has emerged in recent years. It is carried out without physical interaction by means of tools such as television, computer, tablet, mobile phone. Ushun (2006) defines distant learning as an educational technology application where the source and recipients are in distant environments, individuality, flexibility and independence, communication and interaction are provided by technical means. Distant learning is a method that has a different structure from traditional education and has its own promises, problems and opportunities (Valentine, 2002). Distance Learning is seen as advantageous compared to traditional methods in terms of bringing education services to wider audiences, providing equal opportunities and opportunities in education, being easily updated according to individual needs, reducing education costs, benefiting from experts in different places, and being learner-centered (Cavanaugh, 2001; Mupinga, 2005; Shen, Atasoy & Aydin, 2010). In its shortest definition, distant learning is an economic and interactive education model that is carried out by making use of information and communication technology tools and equipment, regardless of time and space (Gokche, 2008, 2). Distant learning, in general, can be expressed as bringing together teachers, students and teaching materials in different places by using appropriate information and communication technology tools.

Purpose of the Study. The purpose of this study is to examine metaphoric perceptions of teachers of distant learning during COVID-19 pandemic. Distant learning, which has a history of about two centuries, is an alternative method used to meet the educational needs of individuals today (Yenal, 2009). Studies show that distant learning actually emerges as a result of need. Inadequate physical and financial conditions have led countries to distant learning practices (Kirik, 2014). Distant learning methods have been preferred in order to eliminate the concept of time and space and to ensure continuation of education as obstacles to continuing school. When the benefits of distant learning began to be seen in the aforementioned situations, it started to be used for different purposes. One of these is improving the

quality of education. Especially due to the widespread use of the internet, distant learning offers individuals richer learning environments. In addition, it ensures that the principle of individuality of education is fully fulfilled by individualizing education according to interests and abilities, taking into account individual differences. For these purposes, distant learning is mostly preferred in higher education. The number and variety of undergraduate and graduate programs and certificate programs opened in recent years is the most important indicator of this. However, there was no serious distant learning activity in basic education and secondary education until the coronavirus (Covid-19) pandemic period.

The COVID-19 pandemic, which has negatively affected human life in many ways since the day it emerged, has also affected the educational life of 1.57 billion students, who make up 90% of the world's registered student population. In order to contain the spread of the pandemic, most governments around the world (143 countries) have had to close educational institutions, albeit temporarily (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2020a). Along with being a global health crisis, the COVID-19 pandemic has also changed the lives of many students, teachers and parents around the world, forcing them to be involved in distant learning activities. Since it is difficult to predict when educational institutions will resume their normal/face-to-face activities due to the constant change of the negative effects of the pandemic, the importance of maintaining the continuity of learning activities in this unknown process is emphasized in the literature (UNESCO, 2020b; 2020c).

Educational institutions all over the world have attempted to provide distant learning through various technologies in order to ensure the continuity of learning for students. In this context, what will be the content provided remotely, how students can access this content, etc. In addition to important questions (Organization for Economic Cooperation and Development [OECD, 2020]), what are the roles and competencies that teachers have or should have in this process were among the questions waiting to be answered (Kavrat & Turel, 2013). In the

literature, although the course contents equipped with appropriate and effective teaching designs for distant learning are prepared by field experts, it is stated that teachers with content knowledge and pedagogical competence have reservations about distant learning practices due to their lack of knowledge about technology (International Labor Organization (ILO, 2020a). and content knowledge, pedagogical and technological competence are inseparable parts of a whole for effective teaching. One of the two environments where this technological competence will be reflected is “distant learning”, where information is exchanged between the teacher and the learner, various teaching materials are used, and takes place at different times and places (Moore, Dickson-Deane, & Galyen, 2011); Another is “online learning”, which is defined as the gains obtained by interacting with the learning content and tools on the internet via any server or computer, and which is used synonymously with terms such as e-learning, digital learning, computer-assisted learning. learning” (Mayer, 2019; Panigrahi, Srivastava, & Sharma, 2018). The ILO (2020b) stated that countries are trying to adapt quickly to the COVID-19 pandemic, which emerged in mid-April and adversely affected the education process all over the world, and that schools and teachers were suddenly transitioned to the distant learning environment in order to ensure the uninterrupted continuation of education. He reported that there are inequalities in the efficiency of education depending on various factors (physical impossibilities, inadequacy of experts, lack of knowledge, etc.) among students, and that these inequalities have more repercussions especially for disadvantaged groups. In our country, face-to-face education was suspended on March 1, 2020. Since then, distant learning has been started. Distant learning, which was put into practice with the pandemic period, is the temporary transfer of face-to-face education to the digital environment in case of a crisis and is called emergency distant learning or emergency distant learning. In this process, 3 different television channels for primary, secondary and high schools started broadcasting. The Education Information Network (EIN) platform was technically supported, enabling teachers to create live classes and teach. Live

classes enable education to take place online via the internet. Mobile applications have been developed and made available to students and parents. Again, the prepared contents were made available to teachers and students online. While free data rights were defined by mobile phone operators regarding internet connection, tablet aid was provided to students in need from various institutions and organizations, especially the Ministry of National Education. Again, by establishing EİN support points in schools, the way for students to use the financial means of the school has been paved. With the distant learning that started with the pandemic process, the traditional understanding of education has undergone a major change and has been replaced by a new generation of teachers, students and documents (Harasim, 2000). Distant learning methods are used all over the world so that education is not interrupted. It is not yet possible to determine whether this situation is successful or not.

Research Questions. In the history of humanity, there have been major events that shook the whole world from time to time and affected countries significantly. These formations have caused and are causing great transformations in people's lives. Especially if these formations are related to health and survival of people, they lead to more serious transformations. The COVID-19 Pandemic we are facing today is a prevalence that has not historically been demonstrated by even globally effective epidemics such as Spanish Flu, Ebola, and Sars.

The following research questions are addressed in the study

1. What are the metaphors that university instructors use regarding distant learning during the pandemic?
2. Which conceptual categories for metaphors are used by instructors?

Significance of the Study. The present study fills the gap in the current literature and to examines the metaphors regarding distant learning process, which has become the most used education method all over the world and in our country due to the COVID-19 epidemic. This study is conducted in Azerbaijan in which few studies on the topic have been conducted. In the thesis, it is aimed that the data to

be collected about the teachers' perceptions will guide the distant learning applications to be carried out in the future.

CHAPTER II. LITERATURE REVIEW

With the transition to distance education in primary and secondary education as well as higher education within the scope of coronavirus measures, students, teachers and parents may encounter problems that they have not encountered before. However, these problems, which range from adapting the course content to the virtual environment, to the difficulties of focusing at home, are not unsolvable.

It is accepted that distance education applications have a long history and these applications started in ancient times. It is thought that the most important reason for this is that the correspondence between the teacher and the student for teaching purposes is seen as a formal education. The date of the first public announcement of distance education is controversial. However, in the Boston Newspaper dated March 20, 1728, there was an announcement that shorthand lessons would be given by letter. Later, in a Swedish newspaper in 1833, an advertisement was found stating that a written expression lesson would be given by letter. However, neither communication nor grading was mentioned in these two advertisements. Determining whether the courses planned to be given in these announcements were given, if these courses were given, whether there was a two-way communication between the student and the teacher, and if there was a grading if the courses were given, does not reveal conclusive evidence that distance education was practiced in those years.

It is accepted that the first distance education application in the world was started by Isaac Pitman in England in 1840. Pitman, a stenographer, began teaching shorthand by letter in Bath, England. He has given education to students with his distance education applications. In these educational practices, Pitman taught students to write small parts of the Bible in shorthand. In the aforementioned distance shorthand lessons, the achievements of the students were also evaluated with grades.

When it comes to 1856, it is seen that organized initiatives in the field of distance education have started. In this year, Charles Toussaint and Gustav

Langenscheid founded a language school in Berlin, Germany, which today publishes teaching materials under the name Langenscheid and implemented distance education in those years.

After the establishment of Langenscheid Language School, which is considered to be the first organized initiative in the field of distance education, Rustinches Distance Education School was opened in Berlin, Germany, in 1884, which prepared students for the university entrance exam.

In 1898, Hans Hermod founded the high school named after him in Sweden, which implements distance education. When Hermod founded the institution, which is now called Hermods- NKI Skolan, it started letter teaching practices and benefited from its own experience in realizing the practice.

It is accepted that the traces of distance education in the United States can be traced back to the Homework Support Association, founded in 1873 by Anna Eliot Ticknor, who is considered the mother of the American Letters Study. Organized distance education studies in this country started in 1874 at Illinois Wesleyan University, where both undergraduate and graduate degrees could be obtained. In the United States, the University of Letters Education was established in Ithaca, New York in 1883, but this institution also shared the same fate with Illinois Wesleyan University after a while. In 1891, a newspaper published in Pennsylvania began to teach mining methods and precautions to be taken against accidents in mines with a brochure it published. After these attempts, in 1891, the University of Wisconsin board of directors decided to expand distance education courses. In 1892, a distance education department was established at the University of Chicago.

The starting year of distance education in England can be accepted as 1840. Because Isaac Pitman, the first modern distance educator, started teaching shorthand by letter in Bath. This distance education practice in England was followed in 1894 by students who were preparing to receive a teaching certificate from abroad, exchanging information with each other in writing. This event, which was held for

students, made it possible for Oxford University to conduct external final exams in accordance with distance education.

The first distance education in Australia was initiated at the tertiary level in 1910. In this application, which was started at the University of Queensland, the standards applied to face-to-face students of the university were also applied to distance education students. In 1949, the Faculty of Non-University Education was established to deal with the curricula and administration of the distance education students enrolled in the university. After this organization, university centers were also established in big cities to enable students to study and receive face-to-face education. Another feature of Australia in terms of distance education is that it is the first country to implement distance education in primary and secondary education.

Distance education applications in New Zealand started in 1922. The first institution where distance education was implemented in this country is the New Zealand Letters Education School.

In Poland, experimental distance education studies were undertaken between 1966-1968 in order to provide learning opportunities via television for students attending night courses. These studies led to the preparation and implementation of programs suitable for technical university programs, thus, distance education began at the higher education level.

The National University of Distance Education was established in Spain in 1972. With the start of teaching in 1973, this university, headquartered in Madrid, started to implement distance education in Spain.

The first of the difficulties for teachers to continue their lessons remotely will be that they are unprepared for this situation. Although distance education design is similar to face-to-face course designs in various aspects, it has to be designed with a completely different mindset. The fact that both teachers and students are not accustomed to this system is a factor that forces the whole world to varying degrees.

We can list the points that teachers should pay attention to while making this preparation as follows:

- To determine which parts of a lesson they plan to teach under normal conditions can be delivered to their students without a live connection;
- To decide which method or methods can best transmit the parts they have determined (video recording, audio recording, reading texts, books, documentaries, etc.);
- To enable students to share their pre-lesson feedback after working on these materials;
- Readings, video etc. asking them to write at least one question about the materials;
- During the live connection, pre-plan what kind of discussion will be held on the materials shared before the lesson – but not neglecting to be flexible against the changes of plans;
- Taking into account the pre-class shares and questions of the students, planning in advance what kind of questions they can ask which students in the course and keeping them in an easily accessible place;
- Dedicate the last 3-5 minutes of the lesson to clearly articulate the student tasks to be given and expectations from them;

During the Covid-19 epidemic that started at the end of 2019, very important developments have been made in the field of education all over the world. While many countries are delayed in taking measures regarding education, it is seen that some countries have made some breakthroughs very quickly.

The concept of distance education in the literature is first mentioned in the education catalog published by the University of Wisconsin in 1892. It emerged in order to respond to the need to access education for people who do not have the opportunity to attend face-to-face classes (Harting & Erthal, 2005). With the rapid development of information technologies, distance learning has gained a new dimension with the ability of remote interaction to become more interactive, and it

has brought some changes in traditional education forms and innovations in learning processes. With the use of the computer as an educational tool, it became possible to distribute written and electronic media (Moore, 1990). Therefore, distance education; it is expressed as a discipline that provides a solution to the inequality of opportunity, provides lifelong education to everyone who wants, as well as contributes to the realization of a number of individual and social purposes of education, allowing the use of educational technologies and more self-learning. Distance education is a set of systems that enable the education given with the infrastructure and devices offered by the developing technological opportunities to reach students independent of time and place (Lehman and Russell, 2006). In another definition, it is stated that “distance education is an institutional education activity in which students, teachers and teaching materials in different places are brought together through communication technologies”.

Nipper (1989) divided the distance education process into three periods. The first semester refers to the learning style based on mutual correspondence, in which communication with students is established by mail. In terms of setting an example for education in this way in our country, the distance teacher training processes of the Trial Higher Teacher School, the first examples of which started in 1974, can be given as an example. In the second period, education was based on audio and video communication tools that came into our lives with the further development of digital technology. These trainings, which are made with television and radio broadcasts, offer more visual and auditory opportunities compared to the first period. Again, open education course models can be shown as an example to this process in our country. The main purpose of the first two periods can be said to be the production and distribution of educational materials. The third period differs from the first two periods. It differs from the learning styles of the first two generations in that there is a two-way communication and interaction between the teacher and the student. When the interaction obtained through computer-assisted communication and video

conferences is evaluated as a process, a communication-based structure comes to the fore (Jones, 1996:139).

The bond established between the teacher and the student with the third-term distance learning model has gained a new dimension and brought with it the opportunity of global education and communication. In this period when communication technologies are used intensively, the teacher and the student came together as if they were in a classroom environment, catching the atmosphere in the classroom environment, developing synchronous dialogue or having the opportunity to watch it over and over again in an asynchronous way brought distance education to a different point.

Within the framework of this information, it is of great importance for distance education students to be in harmony with the system they will use and to adopt the necessary technology. While the problems that arise at the point of adoption of new technology prevent the healthy functioning of the system, it causes the loss of the favorable environment for education. In this context, it is necessary to seriously investigate the student dimension of the distance education process and especially to examine the perceptions and reactions of students to distance education models in order to increase the success of these systems. In this context, many technology acceptance models have been put forward and the acceptance of the system has been investigated in order to investigate the reactions to technological developments, including distance education (King and He, 2006; Park, 2009).

In the field of information systems, the most curious subject of researchers in the 1980s was to understand the reasons for acceptance affecting the use of computers (Davis, Bagozzi, Warshaw, 1989:982). It has become an increasingly important issue to try to understand why users resist computer use, how they will respond to changes, and the relationship between them. For this reason, researchers should be able to define why a system is unacceptable and be aware of the need to offer a recommendation on corrective measures (Davis et al., 1989:985-986).

The technology acceptance model (TKM) has become a model that attracts attention in a short time and has been the subject of many studies, thanks to its relatively strong explanatory power with few variables. Perceived usefulness and perceived ease of use variables were used to explain user intention. TKM has been a powerful explanatory model that tries to predict user behavior and tends to the degree of acceptance by new users. TAM was adapted from the Causality Theory (PFT), which is an important socio-psychological theory, and many studies over time have revealed that the theory is a strong and predictive theory (Wang, 2002). Despite many academic studies and studies, it is not fully understood how the technology acceptance process works for the user. However, from the user's point of view, it is known that the adoption or disapproval of an application that has technology in its core is ultimately related to the acceptance and use of that application. Researchers have produced new models to understand user acceptance and tried to increase the explanatory power of the model. Many researchers have achieved integrated models by combining different theoretical models and have achieved better results in explaining behavior with these new models (Godoe & Johansen, 2012). Although TAM is seen as a very useful model in understanding and explaining the behavior of users in using information technology, the fact that TAM does not include human and social factors has been a subject that has been criticized many times (Lucas and Spitler, 2000; Legris et al., 2003; Sun and Zhang 2006). Therefore, the idea that TAM should be combined with other models to get better results has often been suggested (Park et al., 2015). It is possible to show many examples of combined models. TAM and Planned Behavior Theory (PDT) models were combined to measure the behavior of experienced and inexperienced users by Taylor and Todd (1995). Zaied (2012), on the other hand, obtained an integrated model by combining the TAM and IS Success Model variables and measured the tendency to use new technologies in the public sphere. Amaro and Duarte (2015) tried to explore the factor affecting online travel preferences by combining TAM, PDT and PFT models. s

DeLone and McLean Information Systems Success Model (BS Success Model) contributes to many integrated models with its variables that include system and human factors. It has been observed that the information quality, system quality, satisfaction and usage variables in information systems and their combination with TAM variables positively affect the level of explanation in the models as stated above.

In our world where change is constantly experienced, we can see that many applications that we are accustomed to leave their place to another application in a short time. Change takes place so quickly that most of the time, users are not given the right to choose whether to use the new technology or not, and they are confronted with the obligation to use the new technology. In this rapid change process, the adaptation of individuals to each new formation has become a priority issue and researchers have proposed different models to explore the factors that create resistance to this change. The education process has also taken this change in technology into its agenda gradually, and steps have been taken to adapt. However, the sudden change demand that came with the pandemic has caused difficult transition processes for many institutions. The fact that many educational institutions are not ready for this process has led to the evaluation of educational institutions' perspectives on distance education from the point of view of students and teachers, the efficiency of the web-based applications used and the obstacles in front of them.

Some studies in this area are given below. In the study conducted by Negus (2016), in which he investigated the attitudes of undergraduate students towards acceptance, it was concluded that the individual's attitudes towards technology and acceptance of existing technology are of critical importance in terms of the execution of the system. However, it has been determined that the quality of information does not have a significant effect on the satisfaction of users. In the study of Yiğit et al., (2010) investigating the perspectives of teachers and students on distance education, it was concluded that it was flexible, did not negatively affect

work and social life, and positively affected research and comprehension skills. In terms of instructors, it was concluded that distance education alone is not sufficient. In the study where Oranburg (2020) talks about fast and easy adaptation strategies to educators during the COVID-19 process, he talks about applications that will increase the quality of education if used in the distance education process. Telli Yamamoto and Altun (2020) investigated the unstoppable rise of online education, and its transformation into mainstream learning after the crisis was discussed. In the study of Keskin and Özer Kaya (2020), in which the feedbacks of web-based distance education activities were evaluated, 84.4% of the students stated that web-based distance education was not as effective as face-to-face education, and 45.7% stated that it was an alternative to face-to-face education.

Teachers and distant learning. Distant learning is an education model that, by its nature, gives most of the learning responsibility to the learner and is expected to have self-directed and self-directed learning skills (Knowles, 1975). Due to this feature, distant learning has been frequently applied at the higher education level, and applications for primary and secondary education have increased gradually in the early 21st century (Queen and Lewis, 2011, cited in Bozkurt, 2020b). However, distant learning is an environment where higher education students and even adults face different challenges and therefore high dropout rates. Although it is known that those who enroll in trainings for open and distance learning processes voluntarily enroll, the rate of dropping out of the education process is higher than in face-to-face education. When the education structure in our country and the characteristics of the students are examined, leaving the learning process in open and distance learning draws more attention. When the literature is examined, it is seen that the rate of leaving the teaching process in open and distance learning programs is between 25% and 40% (Frydeberg, 2007).

Achieving a targeted level of success in education and raising qualified students is possible with the provision of a qualified education. For a qualified education, setting certain quality standards and determining the characteristics that the

instructors should have in line with these standards play a key role. It is used to express the whole of the features or qualities that are predicted to have in terms of such aspects". Teacher competencies are generally defined as "the knowledge, skills and attitudes that must be possessed in order to fulfill the teaching profession effectively and efficiently". Expresses the characteristics that must be possessed in order to bring Competence is a concept that expresses the abilities, knowledge and skills needed to perform a task and fulfill the responsibilities required by the task". "Qualification in the teaching profession is to gain the necessary knowledge and skills related to the field of service that the teacher will fulfill". Competence refers to the state of being qualified to perform an activity, task or job function (cited from Spector and la Teja, 2001, Mustaro and Queiroz, 2003).

Teachers who take part in online distant learning are required to have different competence areas and the qualifications determined by the Ministry of Education. Special field competencies of the instructors who carry out e-learning applications are of great importance. Teacher competencies in e-learning applications, whose infrastructure is completely technology-based and different from the classical classroom environment, are defined as "Online Teacher Competencies" in the literature.

Online teacher qualifications have recently been classified in various ways. It is noteworthy that a limited number of studies have been conducted on this subject, especially in our country. In the study named "Roles of Students and Teachers in Distant learning", online teacher competencies;

- Students should be aware of their individual differences,
- Must have real and up-to-date information for permanent learning,
- Should be able to present a research environment to students under the sense of self-control,
- To be able to prepare the materials based on the individual differences of the students,
- Should be able to build new knowledge on prerequisite skills,

- Must have technological and communicative skills,
- To be able to apply the learning process in a student-centered manner,
- To be able to create an interactive environment in order to provide students with learning responsibility,
- To be able to help students develop themselves with the guidance of teachers,
- Must be able to form interactive groups for permanent learning,
- Must be able to provide a collaborative learning environment,
- Should be able to give appropriate feedback by guiding students.

Researchers and experts working in the field of distant learning, which has such a high dropout rate even at the higher education level, continue to conduct many studies on ensuring the continuity and dissemination of distant learning applications. These studies emphasize the importance of the design of the learning environment in the distant learning process. Means, Bakia, and Murphy (2014) mention nine dimensions, each of which has a large number of options, in their work on designing online learning environments. These; level of access to the online environment, pacing, student-teacher ratio, pedagogy, online instructor role, online learner role, online communication synchronization, role of online assessments, and source of feedback. A careful online course planning, preparation and development time that addresses all these dimensions can take anywhere from six to nine months. In his Delphi study, Rice (2009) conducted research on priority research areas for the development of distant learning at the K-12 level (1) evaluating the design and presentation of course content, (2) identifying best practices, (3) reliability, (4) access, (5) online learners stated that they are (6) professional/professional development, (7) accreditation and quality standards, (8) budget and financial resources, and (9) technology. Similarly, in another study conducted by Rice (2006), (1) learner characteristics, (2) learner support, and (3) affective learning areas were determined as the main areas to be focused on. In their study, Corry and Stella (2012) conducted nine research areas (1) learners, (2) teachers, (3) course materials,

(4) presentation of content, (5) method, (6) evaluation, (7) management, (8) internationalization and (9) historical context (Bozkurt, 2020b). It is known that until the pandemic period, distant learning is mostly preferred by disabled individuals, those who have to work and earn money, and young and adult individuals who want to complete their education from outside. Therefore, large-volume, long-term, comprehensive and planned distant learning applications in the field of distant learning exists for a kindergarten-12 level children in our country and in other countries, and a small number of scientific studies on these applications. In fact, the number of studies on the process of taking the education process completely from the screen (TV or online) without setting foot in school for this age group is quite low. As a matter of fact, which of the many communication tools (television, desktop/laptop computer, tablet, mobile phone, etc.) and distance learning environment (synchronous lesson environments, asynchronous lesson environments) that can be used in distant learning at A-12 level and serve different purposes, and in which situations. It is not known whether it is suitable for the characteristics of the students. The reason for this is that no country has been closed for such a long time in the digital age. Considering that today's conditions have to act quickly, it should be accepted that many of the online learning experiences that teachers can offer to their students are not fully planned and are likely to be insufficient in terms of quality. This difference between normally designed online courses and hastily implemented courses with minimal resources and insufficient time is significant (Hodges, Moore, Lockee, Trust, & Bond, 2020). As a matter of fact, it would be appropriate to express this new situation, which is rapidly passed in the process of COVID-19, as 'distance teaching' instead of distant learning. Distance teaching can be defined as the delivery of in-class instruction to learners using the means of information communication (Ferguson, K, 2020; Hodges, Moore, Lockee, Trust, & Bond, 2020).

EBA and similar platforms in other countries (South Korea, Australia, Argentina, etc.) are portals designed to support the face-to-face education process

and used for this purpose until the pandemic period. It should be noted that it is not possible to continue a teaching process entirely through EBA and similar remote portals. As a matter of fact, teachers, who have opportunities at their students' homes, used the opportunities to conduct live lessons with their students with various tools, and this situation was even encouraged by some district national education and school administrators.

Advantages and disadvantages of distant learning. Although online distant learning applications offer solutions such as openness, accessibility and flexibility in education, they require self-directed and self-management (Knowles, 1975, Akt; Bozkurt, 2020a) skills. It highlights the HyFlex (Hybrid Flexible) learning model. However, it should be underlined that the practices that require self-directed and self-directed learning skills are more appealing to adult learners, and that it is important to support and guide learners in practices at A-12 level in terms of providing meaningful learning experiences. In addition, it is thought that the flexible roles that traditional education institutions will undertake in the new pandemic process and the efforts of learners to access information from different environments will add more value in informal learning processes (Bozkurt, 2020a).

In this context, besides the usual variables of face-to-face education such as attending the course, doing homework, and studying in the distant learning process, which have never been experienced before, for students at A-12 level, as well as the perceptions, opinions and feelings of students about whether they has gained great importance can learn from the screen during the lesson. Negative influences on the emotions of individuals directly affect the learning process and cause a loss of motivation (Osguthorpe & Graham, 2003) and lead to a serious decrease in learning permanence (Rovai, Wighting, & Jing, 2005, cited in Bülbül, Tuğtekin, İlic, Kuzu, Odabashi, 2016).

In addition to the advantages offered by online learning environments, it is possible to talk about the existence of some disadvantages. While the interaction and communication between learners, teachers and other learners takes place face

to face in traditional learning environments; takes place in online environments -if provided- in electronic environments such as e-mail, forums, web-supported chat software. In a study, it was concluded that as a result of learners using only internet technologies for communication and interaction, feelings such as isolation, disconnection and isolation from the environment occur in individuals (Ouzts, 2006). This situation is considered as a disadvantageous situation for individuals in online learning environments. When the importance of interaction and communication in learning environments for individuals to access a common knowledge base is questioned, it is seen that a harmonious interaction and communication environment should be provided (Schweizer, Weidenmann, & Bernd, 2003).

Moore (1997) states that the distance between the learner and the instructor in distant learning is not only geographical but also educational and psychological. This concept, which he calls transactional distance, refers to the distance in the relationship between two participants and their partners in educational phenomena (Moore, 1997). There are three important factors that determine the transactional distance. These:

- 1) Interaction or dialogue between student and instructor
- 2) The state or structure of the distant learning program to meet the needs of the students
- 3) Students are autonomous or self-directed.

The main distance in the process designed with the distant learning approach is due to miscommunication and psychological factors that prevent learning (Moore, 1997). Transactional distance theory has two dimensions: distance (structure and dialogue) and autonomy. The distance dimension consists of the dialogue component of the program that allows two-way interaction, and the structure components that express the coexistence of components in responding to student needs. Autonomy, on the other hand, refers to the active participation of students in the determination of objectives, learning activities and assessment criteria. Moore

(1997) saw dialogue and structure as important variables in distance learning and presented them as dimensions of transactional distance. Communication and interaction between teacher and student, dialogue; The combination of elements necessary to meet individual needs in course components such as content, learning results and activities constitutes the structure. The increase in the dialogue in distant learning programs causes a decrease in the structure, and the increase in the structure causes a decrease in the dialogue (Horzum, 2011).

Saba and Shearer (1994) took Moore's theory together with systems dynamics models and defined two more variables in the theory, namely student and instructor control, in addition to transactional distance. Student control, which is defined as a dynamic variable that changes through dialogues between the teacher and the student, is handled in two sub-dimensions as active and passive. Activeness in student participation in instructional activities increases student control, while passivity decreases it. Teacher control, which is defined as a dynamic variable that changes through teacher-student interactions, is handled in two sub-dimensions as direct and indirect. The teacher's direct information in the instructional activities increases the instructor's control, while the directing and curiosity of the student with indirect information decreases the instructor's control. Student control, defined by Saba and Shearer (1994), corresponds to Moore's dialog variable, while instructor control corresponds to the structure variable. (Horzum, 2011).

Moore also formed the main lines of interaction theory in distant learning. Moore (1989) defined three types of interaction in distant learning. These are the interaction between the student and the content or subject of study, the interaction between the student and the experts who prepare the relevant materials or some other experts who can act as instructors, evaluated as the interaction between the student and other students, and the interaction between a real-time tutor or in the presence of a real-time tutor, either alone or in a group setting. Various studies have shown that giving importance to interaction in distant learning, solving students' problems in the fastest way and using a supportive language have a significant

impact on success in distant learning (Baker, 2004; Wheeler, 2002, Huff, 2000, cited by İbicioğlu, Antalyalı, 2005).

Distant learning environments offer a variety of technological and pedagogical opportunities. The benefits of these opportunities for instructors and learners are listed below.

- It is independent of time and space.
- Develops lifelong learning activities.
- Provides equal opportunity in education.
- It reduces the cost of training.
- It saves learners from travel expenses (road, accommodation, etc.).
- It provides the opportunity to watch it again with its recording feature.
- It allows learners to actively participate in the lesson as written, audio or audio-visual.
- It gives learners the opportunity to manage and organize their learning processes.

While the technological and instructional opportunities offered by online course environments provide advantages in certain situations, they also bring limitations in some situations. These limitations are stated below.

- Lack of visual and audio participation during the lesson can make communication inadequate.
- During the online lesson, technical problems (internet interruption, hardware or software problems, not using an updated browser, etc.) may occur.
- Online course platforms can prevent learners from participating in the learning process and taking a more active role in the process.
- The use and management of online course platforms can create an excessive workload for the instructors.
- The system may not be used efficiently when the instructors cannot fully fulfill their responsibilities (Bakker & Wagner 2020).

Benefits of Distant learning. With distant learning, all institutions, especially schools, have the opportunity to reduce the high cost of the education system, to provide education to a group independent of distance and the number of students, and to organize high quality courses in the virtual classroom environment where higher efficiency than the traditional education model is obtained. Students can benefit from a good technological infrastructure and the advantages of student-teacher interaction in classical education, and in addition, they have the opportunity to graduate from an effective and powerful education program enriched visually with various media tools. In addition, the fear of failure in traditional education systems generally disappears in the distant learning system. For this reason, some people prefer to participate in distant learning programs instead of attending courses or programs in classrooms where face-to-face education is provided.

Distant learning has significant benefits, especially in the field of Higher Education. These are listed below.

a) It is an important element to meet the lifelong learning needs of the contemporary student, who contributes to the developed and developing countries, in the face of changes and developments.

b) With the opportunity of life-long individual and independent learning, it gives individuals the opportunity to develop themselves in the field they want.

c) It offers flexibility and diversity in terms of age, environment and method in the learning and teaching process.

d) When the cost of the system is examined in terms of the benefits it offers, it is an educational application that is cheap.

e) It provides the opportunity for working individuals to continue their education at the same time without leaving their jobs, leaving their places and risking losing their salaries.

f) It ensures that the messages are sent to the recipients at first hand and that the recipients can benefit from the message in a great equal opportunity.

g) It is extremely useful in the education of individuals who need special education.

h) providing students with the opportunity to receive education from the highest quality universities is one of the opportunities that cannot be realized in the traditional education system.

i) It offers equal opportunities in education to people living in rural areas(Ushun, 2006:19).

The transition to distant learning during the COVID 19 pandemic. Trying to gain the necessary qualifications to individuals by taking advantage of the opportunities offered by the rapidly developing information and communication technologies has triggered the development of different learning-teaching environments. In addition to these developing technologies, changes in the living conditions and habits of individuals also necessitated new searches in the field of education. At this point, a contemporary understanding of education that offers equal education opportunities to everyone, provides education opportunities everywhere at all ages, aims to meet the educational needs of individuals and society, and supports individual learning by using technology in education is gaining importance.

In order to respond to the changing educational needs of the digitalized world, various authorities see distant learning, which is a form of education independent of time and space, as the solution to the understanding of contemporary education. Distant learning, whose starting point is to meet the learning needs of disadvantaged groups, to educate a large number of learners economically and to meet the workforce needs in a short time, has become an effective high-level learning environment with individual and social learning activities. Synchronous learning environments, where social learning activities are strongly felt in distant learning applications, carry almost all of the activities carried out in traditional face-to-face classroom environments to online environment with the support of new technology.

Today, the increase in communication speed, equipment and access opportunities, changing educational needs, and the widespread use of video conferencing in the daily lives of teachers and students have brought live lesson applications to the fore. Online course applications are widely used by all sectors, including primary and higher education, as well as corporate learning environments.

After the coronavirus COVID-19 pandemic, the whole world has started to use live lesson applications in order to continue their educational activities. Online lesson applications, which affect every unit of the education level, have started to be used rapidly, especially by institutions with sufficient technical infrastructure. Despite the widespread use of online lessons, discussions on their effective and functional use continue. The reason for this is that traditional education has a teacher-centered and lesson-based structure, while live lessons include group activities, paired discussions, applied learning activities and student-centered activities. It is of great importance that the instructors, who have an important role in the effective execution of the online lesson implementation process, plan this transition process very well and use technical and pedagogical models appropriately. Because unlike asynchronous learning environments, online lesson applications allow instant feedback, direct teacher-student interaction and engaging activities to increase motivation and active participation. Instant communication promotes a sense of community as well as building relationships within the group. Although online lessons, which are a learning environment that the majority of learners and instructors encounter for the first time, provide a learning experience as if they were in a physical classroom environment, effective and permanent teaching practices will be realized when they are designed considering technopedagogical approaches.

Distant learning and Traditional Education. With the advancement of technology, online education has made a rapid entry into our lives by getting ahead of traditional education. In recent years, this education system has started to be mentioned frequently. In the last 10 years, online education has come to the fore in

our lives, especially in the field of career education and vocational training. Many businesses have included online certification programs in their company training. A lot of research has been done in this field and the success of this type of education has been investigated. According to the results of the research, it has been observed that the success of online education has increased positively.

The solution to the fight against the coronavirus we are in was found in online education. Due to the Covid-19 epidemic, which affected the world, online education had to replace traditional education. In this way, during the pandemic that we closed to our homes, education started to be given online to primary education, secondary education and universities. However, the transition from the traditional education style that we have been accustomed to for years to the online education style has caused some questions in the minds. Is this training sufficient? Can it replace traditional education? All these questions are caused by the education habits we have received under the leadership of teachers in the school environment.

However, many changes and developments have come with digitalization in our lives. Teachers started to teach their lessons in front of the computer. Students tried to attend classes on the screen. Of course, this education style has some difficulties for both teachers and students. In traditional education, the teacher understands whether the student understands a subject, even by looking into their eyes. However, this is not possible in online education. From the student's point of view, there are difficulties such as concentrating on the lesson, focusing only on the lesson, and other factors in the home environment.

Traditional education is a form of practice in which methods such as question-answer and discussion are used with students in the presence of a teacher in a school environment. This education system is teacher-centered. The existing knowledge is transferred to the students through the teacher. In traditional education, not all students can grasp what the teacher tells at the same level. Students socialize at school as well as receive education. In this sense, when both education systems are evaluated, online education and traditional education systems should also be

developed. It seems that in the digitalized world, online education will greatly affect traditional education.

In our society, the traditional education structure is seen as a stereotyped system that is compulsory. With a continuous routine cycle, you go to school at a certain time, the class is entered, and you leave the school at the end of the lesson. In this cycle, the student's interest in the lesson decreases and loses its importance. Whether the lesson is understandable or not is between the teacher and the student.

With online education, the student listens to the course he wants whenever he wants. There is an opportunity to listen to the subject that he does not understand again. Unlimited access to any online resource he wants. In this way, they benefit from education unlimitedly and the quality of education increases.

On the other hand, we may think that online education negatively affects our lives and that education will not take place without going to school. We may think that it is not possible to receive education from a tablet, phone and computer without a physical teacher at the head of the student.

No matter what we think, we need to keep up with the changing and developing digital world quickly. Among the X, Y, Z generations, the Z generation, which is the most at peace with the digital world, will not have any difficulties in this situation. In other words, our children and grandchildren will easily adapt to online education. Education has no time or place. Anyone who has a desire to learn learns in any environment. As can be seen, in the world that is globalizing and technology is developing rapidly, although there are objections and differences of opinion, the interest in traditional education will decrease day by day.

Online training can be taken from wherever and whenever the person's time is available. All you need is computer, phone, tablet and internet.

While taking online training, you can quickly access many resources at any time with the possibility of searching on the web. In this way, information can be gathered from various sources.

In online education, the investment cost for the education environment and the trainer is low.

Students are independent.

Education can be given in small classes. In fact, lectures are made from a classroom where only the teacher is present.

A teacher is someone who facilitates teaching.

Education is flexible.

Short and accelerated training is given.

The teacher and the student are physically located in a separate place.

Training is done at the individual level.

The relationship between the student and the resources is high.

It creates isolation, alienation and individuality in the student.

In traditional education, it is necessary to go to a fixed education place. This requires travel, time, effort and money.

The content described in traditional education was determined according to the classroom layout. A certain book is told depending on the subject and content.

Investing in personnel who will provide training in traditional education is required.

Students depend on the teacher.

Education is given to large groups of students in large classes.

The teacher is the person who provides and conveys information.

Education is given with purpose.

Training is given over a long period of time.

Teacher and student share the same physical space.

Training is done on a group basis.

The student can only use the resource available in the environment.

It creates socialization, adaptation to the place and entrepreneurship in the student.

Stakeholders' perceptions of distant learning

When the literature on distance education is examined during the pandemic, it is possible to come across many studies. Accordingly, Ozdogan and Berkant (2020) examined stakeholder views on distance education during the pandemic period in their research. The data within the scope of the research were obtained from 137 stakeholders using semi-structured interview forms. The solution suggestions of the stakeholders are mostly in the form of measuring and evaluating the process, establishing equal opportunities, increasing participation and interaction in the course, strengthening the infrastructure, making lessons with their own teachers, and reducing the number of lessons.

Gencoglu and Ciftci (2020) examined the education system during the pandemic. The study examined the difficulties encountered in the world in terms of education during the COVID-19 pandemic process, the measures taken, and the solutions produced. It was found that the problem areas faced by countries commonly focus on access to distance education, determination of student achievement, compensatory education planning, psychosocial support services and (disadvantaged) students requiring special policies.

Chatterjee and Chakraborty (2020) investigated students' views on online education during the COVID-19 pandemic. They prepared a questionnaire with 20 statements related to online education during the COVID-19 pandemic. It was found that the students value the software and online study materials to support online education. In addition, the students felt that online education is stressful and is affecting their health and social life.

Bozkurt (2020) conducted a study that determines the metaphorical perceptions of primary school students towards distance education during the pandemic. In the positive metaphor group in the study, themes of lifelong learning, instructional presence, structured learning, sense of community, autonomy, time, space and independence, and accessibility emerged. In the negative metaphors group, themes of loneliness, artificiality, socialization, isolation, lack of

communication, psychological distance, quality, inequality, transience and affective closeness emerged.

Metaphors in distant learning

To succeed in distance learning, it is necessary to develop a positive perception about it. One of the ways to express thoughts about distant learning is through metaphors. Thoughts of instructors towards distance learning can be determined through metaphors. The metaphor theory of Lakoff and Johnson (1980; 1999) makes it possible to reveal patterns of both individual and common ideas and actions (Schmitt, 2005). Metaphors are concepts that naturally have multiple meanings and that can shed light on our mental world. Metaphor means perceiving/experiencing something by considering something else (Lakoff and Johnson, 2005). Metaphors are easily understandable because they produce semantic connotation (Ocak, 2020). Lakoff and Johnson (2003) states that the basic function of the metaphor is “understanding.” As the conceptual system of individuals is largely metaphorical, their ways of thinking, their experiences, and daily activities can be described through metaphors.

Metaphors reveal how we interpret our daily life, and also shape our thoughts and actions (Kılıç and Arakan, 2010). While metaphors make discovering a piece of knowledge easier, they are also a way to think and see (Morgan, 1998). It is expected that this aspect of metaphors will make teachers understand emergency remote teaching more clearly. It is important for teachers to understand emergency remote training better in order for this concept to develop further. In this regard, we think that the results of the analysis of metaphors that emerged from teachers' opinions may contribute to the research.

A few studies discussed measuring perceptions using metaphors. Martinez, Sauleda, & Huber (2001) analyzed metaphorical learning conceptions of 50 teachers and concluded that many teachers use traditional metaphors and describe teaching and learning as the transfer of knowledge, and some teachers use constructivist metaphors. Eren and Tekinarslan (2013) found a significant and positive

relationship between different concepts of teaching and learning using metaphor. Inbar (1996) discussed that the challenges in schooling using metaphors. Wegner & Nückles (2015) found that academicians' perceptions of teaching and learning were determined using metaphors.

Studies that discuss the perceptions of distant learning mostly focused on students (Howland & Moore, 2002; Kan & Fidan, 2016; Karal, Çebi, & Turgut, 2011; Ojo & Olakulehin, 2006; Sahin & Shelley, 2008). Few studies examined the perceptions of teachers for distant learning (Schulte, 2010; Tao & Yeh, 2008). It is important to examine the perceptions of the participants about distance education through metaphor. Meier et al. (2011) states that humans not only talk with metaphors but also think with metaphors. For this reason, the metaphor is used in this study to determine the perceptions of teachers towards distant learning.

Due to the worldwide epidemic, the importance of distance education has been realized once again. Teachers and students with or without distance education experience had to use this method. The high number of teachers who have never used distance education tools until now has led educational institutions to take new measures. In our country, there has been a search for how many educational institutions can conduct their courses through distance education and which web tools to use in this process. Within this, different web tools that offer the opportunity to do distance education are tried and researches are carried out to determine the most suitable one for distance education. For this, web tools; It has been started to pay attention to the qualifications such as enabling learning to be carried out in the desired quality, bringing together the teacher and the student and providing an environment of interaction between them, allowing the use of different teaching techniques, and having a wide variety of materials. Although the best web tools are determined in distance education, teachers and students who use these web tools and receive training with these tools have an important role. It is necessary to accept that the world will not be the same as before due to the epidemic, and to accept that many factors affecting learning and teaching in the field of distance education will

change and to determine the effect of these changes. In particular, it has become important to determine the effects of distance education on teachers and students who are practitioners. For this, studies have been started to determine the effects on distance education teachers and students. In the literature, there are studies for primary school students, teachers, higher education institutions and compilation studies for distance education due to the Covid-19 pandemic.

As a result of the examinations, it is seen that the majority of the studies reached are aimed at determining the thoughts of university students about distance education, and a few studies are aimed at determining the thoughts of primary school students about distance education. However, it has been determined that studies to determine teachers' thoughts on distance education are carried out with a limited number of teachers. It is not possible for the results obtained in studies conducted with a limited number of sample groups to reflect the thoughts of the teachers on distance education in general. In this respect, it is possible to get an idea about how to make arrangements for distance education applications by determining the thoughts of teachers with a large number of samples, different gender, age, branch, level and professional experience. It is seen that there is a limited number of studies of this nature in the related literature.

In this study conducted in this context; it is believed that it will contribute to eliminating this deficiency in the field in terms of being carried out on teachers with different demographic characteristics. In addition, it is thought that the study will make an important contribution to the field, since the scale used in the study was developed during the pandemic process and is intended to measure qualifications such as distance education limitations, benefits, problems and opportunities. In addition, this study is important in terms of considering distance education from a wider perspective and evaluating it as a holistic and providing information on increasing the quality of distance education.

Since the middle of the 20th century, with the focus on audience analysis in communication studies aiming to measure the effects of mass media, bringing the

audience into a subject position and the gaining of audience-centered research, it has been a matter of curiosity what audiences do, how and for what purpose they use mass media. Such an approach has led to the understanding of the importance of the audience and the acceptance of it as an active user, and the content producers to think in terms of audience and user. In a sense, this understanding, which started in the 20th century, gained more importance in the 21st century with the emergence of social media tools and their individual uses. Therefore, the Uses and Gratifications approach, which investigates the effect of mass media in meeting the needs of society and the satisfaction it provides, is important in terms of studies in this field.

The Uses and Gratifications Approach. Within the framework of Uses and Gratifications Approach, users of mass media are defined as active, unaffected individuals who determine their own preferences and act with their free will. Therefore, within the scope of the Uses and Gratifications Approach, the view is that the user is free and active, chooses the content himself, chooses the mass media that will provide the best satisfaction in line with his own needs, and meets his needs. Accordingly, users satisfy their needs by turning to certain uses within the scope of their needs. The communication tools used also ensure that the users get satisfaction while meeting these needs. Therefore, according to the Uses and Gratifications Approach, individuals consume mass media in line with their needs and provide satisfaction. The Uses and Gratifications Approach also reveals the satisfaction obtained by drawing attention to how individuals use mass media and what they do. The main defense of this approach is that the users choose, buy and use the tools that are suitable for themselves and corresponding to their needs among the freely available mass media. Thus, each of the users turn to different tools for different content in line with their different needs, and the Uses and Gratifications Approach aims to investigate which content and tools are preferred for which needs. Research on the choice of content and tools requires analysis on the user, as well as

providing findings on the processes of meeting these needs. Thus, the Uses and Gratifications Approach allows to obtain qualitative information about the user.

As stated, valuable research has been conducted on the use of social media and the use of digital tools in education within the framework of the Uses and Gratifications Approach. However, there is no research on the satisfaction provided by the distance education tools used in the field of education regarding the pandemic process we live in, since the process is very new. This research is important in terms of determining the satisfaction obtained by the students from the tools they use in the distance education process due to the quarantine experienced during the pandemic process, evaluating the process in general and shedding light on the future researches.

CHAPTER III. METHODOLOGY

3.1. Research Model

This study uses qualitative research methods design. Qualitative research is one of the means of creating knowledge that people develop in order to discover the secrets of its identity and the depths of social systems that it shaped through its own efforts (Özdemir, 2010). Studies that use the qualitative method attempt to have a deep understanding about the subject matter of the study.

In this study, phenomenology, one of the qualitative research designs, was used.

Phenomenology focuses on phenomena that we are aware of but do not have an in-depth and detailed understanding of. Phenomena can appear in various forms such as events, experiences, perceptions, orientations, concepts and situations in the world we live in. The phenomenology design creates a suitable research ground for studies that aim to investigate the phenomena that we are not completely unfamiliar with, but that we cannot fully comprehend. For this reason, it was deemed appropriate to carry out the research in a phenomenological design and it was aimed to examine the perceptions of the participants about the phenomenon of 'distant learning in higher education'. In this study, perceptions of instructors concerning the distance learning during the pandemic in Azerbaijan were analysed through metaphors and interpreted

3.2. Sample

The study group of this research consisted of 250 people from 7 public and private universities in Azerbaijan teaching in the 2020-2021 academic year. 50 peoples' answers were skipped as they did not fit the metaphorical categories. As expressions not fitting metaphoric expressions were removed, the metaphors developed by 200 participants remained. 200 participants produced 125 metaphors in total.

Participation in the research was on a voluntary basis, and the selection criteria for instructors are stated below:

- To have a Bachelor of Education degree or above,
- Being actively working (Employees as administrators will not be accepted),
- Being interested in current technological developments in education and keeping up with these developments.

The sample selection of this study was carried out with 'Criteria Sampling', one of the 'Purposeful Sampling' methods. Criterion sampling is based on the understanding of the study of all cases that meet a predetermined set of criteria. The criteria for choosing the sample of this study are stated above.

Demographic information about participating instructors is given in Table 1.

Table 1

Demographic Information about participating instructors

Variable	Category	f	%	Total
Gender	Male	80	40	200
	Female	120	60	
Specialization	Social Sciences	100	50	200
	Humanities	40	20	
	Science	60	30	

3.3. Forms and Questionnaires

The data of this research were obtained between May and June 2020. Since the Covid-19 epidemic, which affected the whole world at the time of data collection, was still in progress, online semi-structured interviews were held with all participants and the interviews were recorded with the permission and knowledge of the participants.

3.4. Validity and Reliability

The following measures were taken to increase the validity and reliability of this study:

Expert Opinion: The first version of the interview form, which is the data collection tool of the research, was sent to 6 faculty members at the participating universities; Feedback was received from 5. After examining the consistency between the views of the faculty members, necessary corrections were made in the interview form and the interview form was given its final form.

Pilot Study: In order to reflect the main group of the research, a pilot study was conducted through semi-structured interviews conducted online with 20 teachers, Thanks to this application; Preliminary information about technical problems that may occur, the average duration of the interviews, the intelligibility of the questions and the clarity of the answers were obtained.

3.5. Data analysis

Interviews were collected and transcribed, and codes were developed. Themes and categories were developed based on a literature review. The themes, categories were interpreted. Data were analyzed using content analysis, a data analysis method frequently used in social sciences. Content analysis is a method that differentiates, compares, systematizes the data through an in-depth process and to interpret the results in a comprehensible manner. Content analysis combines similar statements in textual data through certain classification processes to interpret them in a comprehensible and meaningful way. The fundamental logic of this analysis method is to consider common aspects of similar data for categorization, and to interpret them by assigning quantitative meanings to qualitative data.

CHAPTER IV. FINDINGS

Metaphors and Categories regarding the Concept of Distant learning

Metaphors used by instructors about distant learning were investigated. Metaphors expressing participants' perceptions of distance education and the categories in which they are grouped according to their common characteristics are given in Table 2.

Table 2. Metaphors about the Concept of Distant learning

Category	Metaphor	N	%
Effectiveness	Walking in the darkness (4), Uncertainty (4), Ineffective (4), Distant learning (3), Difficulty, Empty classroom, Exist but absent, Filling in an empty container, Flower watering, Irresponsibility, Lecture with presentation, Network, No school	24	19.2
Education mode	Traditional education (12), Classroom (2), classroom learning, Blended education, Teacher, Web-based education, Internet	19	15.2
Opportunity	Life (6), Technologies (5), A continuous education, A parent away from a child, Equal opportunity, Distance,	20	16

	Information age, Mobile learning, Remote control, Science, Window opening to the horizon		
Virtuality	Artificial flower, Image, Isolation, Presence behind glass, Dream, Shadow, Media, Social media, Sun, Virtual life, Virtual meeting, Virtual, Watching from outside, Watching behind the glass	14	11.2
Uniqueness	Open learning (9), Drawing a path to yourself, Freedom, Home based education, Individual learning, Notebook, Team work, Telling a lesson to yourself, Working from home, home-based study	18	14.4
Irreplaceable	Car without a wheel, Entertainment, Fun, Football match without audience, Free time, Missing step, Play, Remote control, Spare time	9	7.2
Requirement	Emergency exit (2), Efforts for continuing education, Compensation of what is lost, First aid, Mandatory effort, Sitting at the desk, Teacher who does his job	8	6.4
Use	Apple tree, Book, Flower, Look into the future, Windows, comfort	5	4

Independence	Sun (4), Internet, Mobile, Phone call, distant	8	6.4
Total		125	100

Some of the metaphors are stated below:

T100: “*Distant learning is like a **classroom learning**; helping to make collaborative lessons in the classroom environment.*”

T205: “*Distance education is like **parent who is away from a child**; parents who are way from children still care for their education and knowledge, and teachers feel the same during distant learning.*”

T141: “*Distant learning is like **a flower**; as a flower it grows and flourishes*

T080: “*Distant learning is a **presence behind the glass**. You cannot touch, feel it”*

T002: “*Distance education is like the **sun**; no matter how far the student is from education, it reaches the student like the sun.*”

T144: “*Distance education is similar to **traditional education**; it provides equal opportunities in education, it helps people who cannot receive face-to-face education to attend classes.*”

CHAPTER V. DISCUSSION AND CONCLUSION

In this study, perceptions of instructors towards distant learning were determined through metaphors. Metaphor analysis as a very effective research method is used as an effective qualitative research method in distance learning research (Güneş & Fırat, 2016). As a result of the study, a total of 125 metaphors classified under 9 categories were obtained. Metaphors of the participants towards distant learning were gathered in the categories of “effectiveness”, “education mode”, “opportunity”, “virtuality”, “irreplaceable”, “requirement”, “use”, and “independence”. Instructors mostly used metaphors of “traditional education”, “uncertainty”, “and life”.

In the category of **effectiveness**, it is found that there is an opinion that distant education is not as effective as traditional education. Teachers characterized distant learning as the “uncertainty” and “walking in the darkness”. Participants described both negative aspects of distant learning as well as their positive aspects. The negative perceptions of the participants are related to the fact that the distant learning was not well planned or organized. Participants who have a negative perception of distant learning may be less prepared for the distant learning implemented at all educational levels as a result of the Covid-19 pandemic. Those who did not have any experience felt lost and tried to keep up with new system.

With the category of **education mode**, the participants stated that distance education is an alternative to face-to-face education. Among the metaphors formed under this category, “traditional education” was mostly mentioned by its role. The participants consider distant learning as an alternative to traditional education. Participants perceive distant learning as “internet-based education”. Distant learning is related to metaphor such as “classroom”.

In the category of **opportunity**, the opportunities offered by distant learning are mentioned. Among the metaphors under this category, “technology and “life” are frequently mentioned. Among the other metaphors, “distance”, “remote control”, “equal opportunity” and “continuous education” are used. Participants stated that

distant learning is an alternative educational approach that offers people equal opportunities and continuity in education. Considering the opportunities offered by distant learning, during Covid-19 pandemic people who need to be educated can meet educational needs with the opportunities offered by distant learning.

In the category of **virtuality**, the artificial character of distant learning is emphasized. Participants related distant learning to “artificial flower”, and “dream”. Distant learning was metaphorized as “watching behind the glass” as they could not link it to traditional education. Although technology has managed to virtualize many things, the fact that education is virtual is not widely adopted by people. Karal, Çebi, and Turgut (2011) attributed negative perceptions towards distant learning to technical problems.

In the **category** of **uniqueness**, the participants touched on the feature of distant learning to be suitable for individual learning. “Open learning” metaphors were frequently used in this category. They explained the unique character of distant learning by using metaphors such as “drawing a path to yourself”, “individual learning” etc. The education during the Covid-19 pandemic has emphasized individual learning. The reason why distance education is perceived as appropriate for individual is because individuals think that it is a beneficial solution by being influenced by pragmatism.

In the category of **irreplaceable**, the distant learning was perceived as never replacing face-to-face education although it is an alternative to traditional education. Distant learning was related to “missing step”, “spare time”, and “football match without an audience”. The development of these perceptions of distant learning result from the transformation of traditional education into distant learning during the pandemic period. It is known that no form of teaching alone is sufficient and successful. In particular, the lack of knowledge and awareness of students about distance education will prevent them from developing a quality learning experience (White, 2005).

In the category of **requirement**, it has been stated that distant learning should be used only when the need arises. Participants who were dissatisfied with the compulsory distance education applied at all educational levels due to the Covid-19 pandemic expressed metaphors such as “emergency exit”, “compensation of what is lost” and “mandatory effort” The common metaphor was an “emergency exit”. The reason for the dissatisfaction may be due to the habit of traditional education. Some teachers expressed positive perception towards distant learning as they felt ready for it.

With the category of **use**, success in distant learning is perceived as dependent on using it properly. Distant learning requires the necessary infrastructure such as the internet and computer, and success in distant learning is achieved only by spending the necessary time and effort. Efficiency of distant learning vary depending on the infrastructure and the service provided, the goals of the person, and the quality of the time spent in this process. Forrester and Parkinson (2004) argue that student satisfaction with distant learning depends on their perception of the program, their work and demands and effectiveness of preparation for learning. Therefore, it is necessary to meet the expectations of the students to eliminate the student dissatisfaction (Forrester & Parkinson, 2004). To develop a positive perception of distance education, the technical infrastructure that will meet the expectations of teachers, students, and parents must be developed. Tao & Yeh (2008), examining teachers' perceptions about distance education, argue that to be successful in distance education, it is necessary to provide opportunities for teachers with negative perceptions to remove their doubts. Schulte (2010) argued that teachers with experience in distance education have a positive perception.

With the category of **independence**, it has been stated that distant learning eliminates the need for teachers and students to be in the same environment. Under this category, distant learning was mostly likened to the “sun”. It is perceived that distance education is equally distant to everyone. It was concluded that, with synchronous distant learning, students have minimized the distance between them

and that they developed positive perceptions towards distance education (Yıldız, 2011).

As a result of the study, the metaphors towards distant learning were gathered in the categories of “effectiveness”, “education mode”, “opportunity”, “virtuality”, “individuality”, “irreplaceable”, “requirement”, “use”, and “independence”.

Participants mostly perceived distant learning for metaphors as “traditional education”, “sun”, and “open learning”.

It was observed that teachers' metaphors are mostly collected in categories of “effectiveness” (19.2%), opportunity (16%), “mode” (15.2%), and “uniqueness” (14.4%). It can be said that some teachers have negative perceptions of distance education.

It can be concluded, that distant learning, which can be accessed from anywhere, day and night, 365 days a year, is developing by reaching the masses in our country as well as all over the world. Both individual and institutional demands are increasing in distant learning and lifelong learning. It is not possible for distant learning systems to replace traditional education. There are many advantages in traditional education. Combining traditional education and distant learning systems provides a more effective education. However, distant learning is extremely necessary for those who do not have traditional education opportunities, such as employees, students who are widely distributed, people with physical disabilities, people who want to improve themselves. In this respect, communication technologies must be in working condition. The most important element in distant learning is the communication infrastructure. Problems in communication infrastructure affect education. For this reason, the technological infrastructure should be constantly improved, the interruptions in the connection should be eliminated, and the internet speed should be increased. Wireless connection areas should be increased and their scope should be expanded. Universities should evaluate learning activities. Programs must be of high quality and meet the needs of

a diverse student population. Increasing competition in distant learning should increase the success of universities and programs.

A virus that started in the city of Wuhan, China, and then spread all over the world, destroyed the balance, interrupting the activities of all institutions serving people, especially due to human contact and respiratory infection. Education and training activities have also taken their share from this global epidemic and face-to-face education has left its place to the distant learning process. Phones, tablets, laptops have been an integral part of the process, and education has been carried out through technology. Although distant learning activities are common in our country, school administrators, teachers and students experienced some confusion at the beginning of the process. Thanks to the measures taken by the authorities and the distant learning materials produced, there was a rapid recovery and everyone adapted to the process. Undoubtedly, it is the teachers who facilitate the adaptation of this process and take an active role in the process. As stated by the authorities, teachers played a great role in the successful completion of this process by showing great effort. Undoubtedly, their views on this process are important in terms of shedding light on the future.

In order to better prepare for distant learning courses, institutions need to make the necessary preparations and ensure readiness. Institutional structure is very important. Distant learning activities carried out before the completion of the institutional structuring will distract the students from the education processes rather than providing benefits to the students. Connection problems cause loss of motivation in students. Even if the students do not have a connection problem at home, at least half of them have problems in distant learning due to the connection problem experienced by the teacher at the entrance to the lesson.

Working teachers should receive training on distant learning during in-service training. One of the most important problems encountered in distant learning is that the visual and auditory materials are not presented in a remarkable way. In the content presentation, instead of text-based content, videos, animations, etc. that can

attract the attention of students visually and audibly. content presentations should be preferred and enhanced.

In order to increase the quality of distant learning, it is necessary to improve the competencies of teachers with in-service trainings on topics such as web 2.0 tools, preparing distant learning activities, student-teacher relations in distant learning, the Internet infrastructure should be provided in such a way that all students and teachers do not have connection problems. It has been determined that new studies should be carried out on the effectiveness of the courses and the quality of their content, and the EBA education portal should be further enriched in terms of content.

The readiness of teachers and institutions that will conduct distant learning should be determined and increased. Preparation for content and technical infrastructure should be made. In addition, feedback should be received and necessary adjustments should be made. Pilot applications related to distant learning should be carried out, legal regulations and laws regarding distant learning should be prepared in a way that does not leave any gaps.

As a result, although there are many elements of education and training activities, the two most basic elements are the teacher and the student. Their opinions give the most effective results about the efficiency of the process. Teachers think that the distant learning given during the pandemic process is not efficient at the desired level.

Considering the results obtained from the research, it can be said that the participants generally do not have positive perceptions of distant learning at the desired level. To achieve success in distance education, teachers should have a positive perception of distant learning. It is necessary to make teachers provide quality education.

According to the teachers, distant learning is not very useful, and cannot replace face-to-face education. Techniques that will provide success in distance education should be taught to the teachers who use virtual class activities with the

method they apply in face-to-face education. It is recommended to give system usage seminars to teachers who will teach for the first time with distant learning and to provide uninterrupted technical service whenever they need it.

It may be important to systematically provide measurement and evaluation activities in distant learning in a result-oriented manner. Instead of giving out difficult and intense assignments to students, giving them critical responsibilities may ensure that they are more engaged in the learning process.

Since 2020 distant learning is applied at all education levels in Azerbaijan. Studies in which perceptions of distance education are determined to have information about the progress can be repeated.

In this study, metaphors were used to determine teachers' perceptions of distant learning during the coronavirus pandemic. Different data collection tools and methods can be used in future studies. In addition, this study includes the evaluation of the process from the perspective of teachers. Similar studies can be carried out in which students' opinions are consulted. As a result of the research, it was understood that teachers complained about technical infrastructure problems. For this reason, it can be suggested that steps should be taken to solve technical problems and eliminate the students' lack of technological equipment.

REFERENCES

1. Addington, L. A. (2009). Cops and cameras: Public school security as a policy response to Columbine. *American Behavioral Scientist*, 52(10), 1426–1446.
2. Adelman, H.S. and Taylor, L. (1998). Reframing mental health in schools and expanding school reform. *Educational Psychology*, 33, 135–152.
3. Agnoletto, R., and Queiroz, V.C. (2020). Covid-19 and the challenges in education. *The Centro de Estudos Sociedade e Tecnologia (CEST)*, 5, 2
4. ALLY, M. (2019). “Competency profile of the digital and online teacher in future education”, In *International Review of Research in Open and Distributed Learning*, 20(2).
5. ALMANTHARI, A., Maulina, S. and Bruce, S. (2020). “Secondary school mathematics teachers’ views on e-learning implementation barriers during the COVID-19 pandemic: The case of Indonesia”. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7), em1860
6. Alanezi & AlAzwani (2020). Future of Mobile Learning During and After Global (Covid-19) Pandemic: College of Basic Education as Case. *Journal of Education and Practice*, 11,.17, 2020
7. Anderson, C. S. (1982). The Search for School Climate: A Review of the Literature. *Review of Educational Research* 52(3), 368-420.
8. Arënliu, A., & Bërxulli, D. (2020). Rapid assessment: Psychological distress among students in Kosovo during the COVID-19 Pandemic. Access adress: [researchgate.net/publication/340262171_Rapid_assessment_Psychological_distress_among_students_in_Kosovo_during_the_COVID_19_pandemic](https://www.researchgate.net/publication/340262171_Rapid_assessment_Psychological_distress_among_students_in_Kosovo_during_the_COVID_19_pandemic). Accessed on: 28 April 2020
9. Astor, R. A., Benbenishty, R., & Estrada, J. N. (2009). School Violence and Theoretically Atypical Schools: The Principal’s Centrality in Orchestrating Safe Schools. *American Educational Research Journal*, 46(2), 423–461. DOI: 10.3102/0002831208329598

10. Baeva, I. A., Volkova, E. N., & Laktionova, E. B. (2011). *Psihologicheskaja bezopasnost' obrazovatel'noj sredy: Razvitie lichnosti* [The psychological safety of the educational environment: The development of personality. Moscow, St. Petersburg: Nestor-Istoriya. (in Russian).
11. Bataineh, K. B., Atoum, M. S., Alsmadi, L. A., & Shikhali, M. (2020). A Silver Lining of Coronavirus: Jordanian Universities Turn to Distance Education. *International Journal of Information and Communication Technology Education (IJICTE)*, 17(2), 1-11.
12. Bauer, G., Kenneth Davies, J., Pelinkan, J. on behalf of the EUPHID Theory Working Group and the EUHPID Consortium (2006) The EUHPID health development model for the classification of public health indicators. *Health Promotion International*, 21, 153–159.
13. Basilaia, G., and Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 Coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4), em0060. <https://doi.org/10.29333/pr/7937>
14. BAWANE, J. and Spector, J. (2009). “Prioritization of online instructor roles: Implications for competency-based teacher education programs”, *Distance Education*, 30(3), 383-397.
15. Bellamy, G. T., Crawford, L., Marshall, L. H., & Coulter, G. A. (2005). The Fail-Safe Schools Challenge: Leadership Possibilities From High Reliability Organizations. *Educational Administration Quarterly*, 41(3), 383–412. DOI: 10.1177/0013161x04269862
16. Bentley, K. Hybrid Learning Goes Mainstream amid Response to COVID-19. Available online: <https://www.govtech.com/education/k-12/hybrid-learning-goes-mainstream-amid-response-to-covid-19.html> (accessed on 12 July 2020).
17. Bender, L. Key Messages and Actions for COVID-19 Prevention and Control in Schools. Available online: <https://www.who.int/docs/default-source/coronaviruse/key-messages-and-actions-for-covid-19-prevention-and-control-inschools-march->

2020.pdf?sfvrsn=baf81d52_4&gclid=Cj0KCQjw6uT4BRD5ARIsADwJQ197uVW8uB1-D26t0LB9t-P3ENYMnm_Cbyk6fMh9mf2yZ1s-0Dxlt4aAikNEALw_wcB (accessed on 12 July 2020).

18. Bozkurt A (2020). Images and perceptions of primary school students towards distance education during coronavirus (COVID-19) pandemic: a metaphor analysis. *Usak University Journal of Educational Research* 6(2):1-23.

19. BRYMAN, Alan (2006). "Integrating quantitative and qualitative research: How is it done?" *Qualitative Research*. S6 (1), ss. 97-113

20. Byun, S. & Slavin, R. E. (2020). Educational Responses to the COVID-19 Outbreak in South Korea. *Best Evid Chin Edu*, 5(2), 665-680.

21. CLARK, John R. (2020). Distance education. *Clinical Engineering Handbook*, Ed: Ernesto Iadanza. Academic Press, Floransa-İtalya.

22. COHEN, Jacob (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.).

23. CHIEMEKE, S. and Imafidor, O. M. (2020). "Web-based learning in periods of crisis: Reflections on the impact of COVID-19", *International Journal of Computer Science & Information Technology (IJCSIT)*, 12(3), 33-46

24. Chatterjee I, Chakraborty P (2020). Use of information and communication technology by medical educators amid COVID-19 pandemic and beyond. *Journal of Educational Technology Systems* 49(3):310-324.

25. Eren, A., & Tekinarslan, E. (2013). Metaphors regarding teacher, teaching, learning, instructional material and evaluation: A structural analysis. *Gaziantep University Journal of Social Sciences*, 12(3), 443-467.

26. FARMER, H. M. and Ramsdale, J. (2016). "Teaching competencies for the online environment", *Canadian Journal of Learning and Technology*, 42(3), 1-17

27. Ferguson, K. (2020). Online Education vs. Remote Teaching (Part 1 of 4). Erişim adresi: <https://iace.education/blog/online-education-vs-remote-teaching-part-1-of-4>

28. Frydenberg, L. (2007). Persistence in University Continuing Education Online Classes. *International Review of Research in Open and Distance Learning* Volume 8, Number 3.
29. García-Alberti M, Suárez F, Chiyón I, Mosquera Feijoo JC (2021) Challenges and Experiences of Online Evaluation in Courses of Civil Engineering during the Lockdown Learning Due to the COVID-19 Pandemic. *Education Sciences* 11: 59.
30. GEWIN, Virginia (2020). “Five tips for moving teaching online as COVID-19 takes hold”, *Nature*, S 580(7802), ss. 295-296
31. Gencoglu C, Ciftci M (2020). Education during COVID-19 outbreak: analysis from Turkey. *Journal of the School of History* 46(46):1648-1673.
32. Goldschmidt, K. (2020). The COVID-19 pandemic: Technology use to support the wellbeing of children, *Journal of Pediatric Nursing*. DOI: <https://doi.org/10.1016/j.pedn.2020.04.013>
33. Giannini, S. and Lewis, S. G. (2020). Three ways to plan for equity during the coronavirus school closures. <https://gemreportunesco.wordpress.com/2020/03/25/three-ways-to-plan-for-equity-during-the-coronavirus-school-closures>
34. Harasim, L. (2000). Shift happens: Online education as a new paradigm in learning. *The Internet And Higher Education*, 3(1-2), 41-61.
35. Hillsdale, Erlbaum Press, New Jersey. CRESWELL, John W. (2007). *Qualitative inquiry and research design*. Sage, Thousand Oaks.
36. Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. Published: Friday, March 27, 2020. Access address: <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning> Access date: 27 April 2020
37. Howland, J., & Moore, J. (2002). Student perceptions as distance learners in internet-based courses. *Distance Education*, 23(2), 183-195.

38. Inbar, D. (1996). The free educational prison: metaphors and images. *Educational Research*, 38(1), 77-92.
doi:<https://doi.org/10.1080/0013188960380106>
39. İVARİ, N., Sharma, S. and Ventä-Olkkonen, L. (2020). Digital transformation of everyday life—How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care?. *International Journal of Information Management*, 55(102183), 1-6.
40. IYER, Parvati, AZIZ, Kalid, OJCIUS, David M. (2020). “Impact of COVID-19 on dental education in the United States”, *Journal of Dental Education*, S 84(6), ss. 718-722.
41. Kan, A. Ü., & Fidan, E. K. (2016). Student perceptions of distance education on Turkish language courses. *Turkish Journal of Educational Studies*, 3(2), 23-45
42. Karal, H., Çebi, A., & Turgut, Y. E. (2011). Perceptions of students who take synchronous courses through video conferencing about distance education. *The Turkish Online Journal of Educational Technology-TOJET*, 10(4), 276-293.
43. Kuhfeld M, Soland J, Tarasawa B, Johnson A, Ruzek E, et al. (2020) Projecting the potential impact of COVID-19 school closures on academic achievement. *Educational Researcher* 49: 549–565.
44. Kaffenberger M (2021) Modelling the long-run learning impact of the Covid-19 learning shock: Actions to (more than) mitigate loss. *International Journal of Educational Development* 81: 102326. pmid:33716394
45. Lakoff, G. & Johnson, M. (2005). *Metaphor We Live By*. London.
46. Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
47. Li, C.; Lalani, F. The COVID-19 Pandemic Has Changed Education Forever. This Is How. Available online: <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/> (accessed on 12 July 2020).

48. Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of Covid-19 on higher education around the world. IAU Global Survey Report.
- Martinez, M. A., Sauleda, N., & Huber, G. L. (2001). Metaphors as blueprints of thinking about teaching and learning. *Teaching and Teacher Education*, 17, 965–977. doi:[https://doi.org/10.1016/S0742-051X\(01\)00043-9](https://doi.org/10.1016/S0742-051X(01)00043-9)
49. Mastour H, Ghalibaf AM, Niroumand S (2021) Remote Online Exams Anxiety during the COVID-19 Crisis: A Cross-Sectional Study among Medical Students.
50. MAYER, R. E. (2019). “Thirty years of research on online learning, *Applied Cognitive Psychology*, 33(2), 152-159.
51. Meier, B., Moller, A., Chen, J., & Riemer-Peltz, M. (2011). Spatial metaphor and real estate: North–South location biases housing preference. *Social Psychological and Personality Science*, 2(5), 547-553
52. Mishra, P. & Koehler, M.J. (2006). Technological Pedagogical Content Knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), s.1017-1054
53. Miles, M.B., and Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, California: Sage.
54. Mishra, L., Gupta, T. and Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 1(2020), Article: 100012.
55. Moore, M.G. and Kearsley, G. (2011). *Distance education: A systems view of online learning*. (3rd ed.). Belmont, CA: Wadsworth Cengage Learning.
56. Mulenga, E. M., and Marbán, J.M. (2020). Is COVID-19 the gateway for digital learning in mathematics education? *Contemporary Educational Technology*, 12(2), 269. <https://doi.org/10.30935/cedtech/7949>
57. Ojo, D. O., & Olakulehin, F. K. (2006). Attitudes and perceptions of students to open and distance learning in Nigeria. *International Review of Research in Open and Distance Learning*, 7(1), 1-10.

58. Ocak, M What We Learned about Distance Education during Covid-19? EPALE–Electronic Platform for Adult Learning in Europe. 2020. Available online: <https://epale.ec.europa.eu/en/blog/what-we-learned-about-distance-education-during-covid-19> (accessed on 12 July 2020).
59. Pellegrini, M., Uskov, V., & Casalino, N. (2020). Reimagining and Re-Designing the PostCOVID-19 Higher Education Organizations to Address New Challenges and Responses for Safenand Effective Teaching Activities. *Law and Economics Yearly Review Journal*, 219-248. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3659062
60. Queiroz, V. & Mustaro, P.N. (2003). Roles and Competencies of Online Teachers. <http://iteslj.org/Articles/Queiroz-OnlineTeachers.html> Retrieved 20 February 2012 from the Internet address.
61. RACHMADTULLAH, R., Aliyyah, R. R., Samsudin, A., Syaodih, E., Nurtanto, M. and Tambunan, A. R. S. (2020). “The perceptions of primary school teachers of online learning during the COVID-19 pandemic period: A case study in Indonesia”, *Journal of Ethnic and Cultural Studies*, 7(2), 90-109.
62. Rajab, M. H., Gazal, A. M., & Alkattan, K. (2020). Challenges to Online Medical Education During the COVID-19 Pandemic. *Cureus*, 12(7), e8966. DOI:10.7759/cureus.8966
63. Sahin, I., & Shelley, M. (2008). Considering students’ perceptions: The distance education student satisfaction model. *Educational Technology & Society*, 11(3), 216–223.
64. Schmitt, R. (2005). Systematic metaphor analysis as a method of qualitative research. *The Qualitative Report*, 10(2), 358-394.
65. Saw GK, Chang C, Lomelí U, Zhi M (June 2020) Fall Enrollment and Delayed Graduation Among STEM Students during the COVID-19 Pandemic. <https://nreeducation.wordpress.com> Network for Research and Evaluation in Education (NREED) Data brief. pp. 1–5 p.

66. Saw GK, Chang C, Lomelí U, Zhi M (August 2020) Gender Disparities in Remote Learning during the COVID-19 Pandemic: A National Survey of STEM Faculty and Students. <https://nreeducation.wordpress.com> Network for Research and Evaluation in Education (NREED) Data brief. 1–5 p.
67. Simonson, M., Smaldino, S., Albright, M., ve Zvacek, S. (2012). *Teaching and Learning at A Distance: Foundations of Distance Education*. (5th Edition). Boston: Allyn & Bacon.
68. Tao, Y.-H., & Yeh, C.-C. (2008). Typology of teacher perception toward distance education issues-A study of college information department teachers in Taiwan. *Computers & Education*, 50(1), 2336.
69. Tilak P, Deshmukh M, Phadake S (2020) A survey on online examination during COVID 19 pandemic: Perception of Management Students. *Mukt Shabd Journal* 9: 284–290.
70. Wegner, E., & Nückles, M. (2015). Knowledge acquisition or participation in communities of practice? Academics’ metaphors of teaching and learning at the university. *Studies in Higher Education*, 40(4), 624-643. doi:<https://doi.org/10.1080/03075079.2013.842213>
71. WOODS, M. L., Karp, G. G., Hui, M. and Perlman, D. (2008). “Physical educators’ technology competencies and usage”, *Physical Educator*, 65(2), 82-99.
72. YAMAN, M. (2009). “Perceptions of students on the application of distance education in physical education lessons”, *The Turkish Online Journal of Educational Technology*, 8, 1-10.
73. Yamamoto, G. T., Altun, D. (2020). The Coronavirus and the Unstoppable Rise of Online Education. *Journal of University Studies*, April 2020, Volume 3, Issue 1, Pages: 25-34
74. Yuan, J., Li, M. and Lu, Z.K. (2020). Monitoring transmissibility and mortality of KOVID-19 in Europe. *International Journal of Infectious Diseases*, 95, 311–315.
75. Zhou, L., Li, F., Wu, S. and Zhou, M. (2020). “School’s out, but class’s on”, the largest online education in the world today: Taking China’s practical exploration

during the COVID-19 epidemic prevention and control as an example. Best Evidence of Chinese Education, 4 (2), 501-519.