


Distance Education Experiences of Social Studies Teachers: Current Situation, Problems and Solution Suggestions in Gaziantep Province

Özlem Muraz Budak

Gaziantep University, Turkey,  <https://orcid.org/0000-0001-7882-9087>

Muhammet Seçkin

Ministry of Justice, Turkey,  <https://orcid.org/0000-0002-9279-0972>

Abstract: In this study, it is aimed to examine the experiences of Social Studies Teacher Candidates in the Distance Education process. In this study, which is qualitative research, the phenomenology design was used. The study group of the research consists of Social Studies Teacher Candidates studying at Gaziantep Province Nizip Education Faculty. The data of the study were collected by semi-structured interview technique according to 14 open-ended questions created by the researcher and the expert. During the data collection process, some face-to-face interviews were conducted. Due to the COVID (19) pandemic, which has affected the world and our country, some of the data has been collected via mail and forms. The obtained data were analyzed by content analysis technique. The findings obtained from the analysis of the data are presented in tables. The results obtained within the framework of the experiences of the pre-service teachers gave direction to the research. According to the results obtained in the research, it was stated that the interest of the pre-service teachers who took lessons with distance education decreased and that the distance education lessons had advantages and disadvantages, that distance education lessons were important in continuing education, but they could not replace face-to-face education. The lack of any preparations for distance education and the inability to get used to distance education and the inability to overcome the psychological difficulties in the pandemic process were effective in shaping the views of pre-service teachers. It has been concluded that due to the poor infrastructure of the country due to its geographical regions, the lack of full participation in the classes and the fact that students do not have sufficient equipment and devices economically, they have negative opinions about distance education.

Keywords: Distance Education, Social Studies

Citation: Budak, Ö.M., & Seçkin, M. (2022). Distance Education Experiences of Social Studies Teachers: Current Situation, Problems and Solution Suggestions in Gaziantep Province. In A. Ben Attou, M. L. Ciddi, & M. Unal (Eds.), *Proceedings of ICSES 2022-- International Conference on Studies in Education and Social Sciences* (pp.348-369), Antalya, Türkiye. ISTES Organization.

Introduction

The importance of education and training in the progress of the world and societies is very great. Since the day it has existed, people have understood the importance of passing on their knowledge to new generations. Until the discovery of the manuscript, people have always transmitted orally. Past human communities have passed on the information they want to pass on to new generations with epics and fairy tales. These fairy tales and sayings that people pass on to future generations are also considered part of education. The discovery of writing by the Sumerians has been a turning point in human history, and every community that has come over the years has contributed to the development of education by bringing a new perspective to education. (Tuncer & Taşpınar, 2008; Güneş, 2016; Özmen & October, 2013).

Education has undergone very important evolutions from the past to the present. This change is a long process, from fairy tales and oral expressions to educational programs. These knowledge accumulations in the process have prepared the ground for the formation of today's technology. The importance that people attach to education and training has also been the policy of the world's states. In order to ensure their future, the states have used education as a tool and invested in the most important ore in the world, namely human beings (Tuncer & Taşpınar, 2007).

With the increasing population, people's expectations and desires are also changing and changing. The resources and tools available in the world are not enough for these wants and needs of people. Depending on this situation, it is insufficient at some points in education and training. Since the opportunities available to countries are limited, they have had to lean towards different orientations in education and training (Ergüney, 2015). Educational and technological developments follow each other. Advances in technology have given rise to important alternatives in the education world, which is experiencing difficulties in terms of population, time and opportunity equality (Bilgiç & Tüzün, 2015).

With technological developments, a lot of electronic tools and equipment have entered our lives. It has been an important issue to make these technological tools a part of education and various alternatives have been developed. One of these alternatives is distance education, which has recently started to take a lot of place in our lives (Tuncer & Taşpınar, 2007). The importance of educational institutions in traditional education and training from the past to the present is an undeniable fact. The increasing population and the lack of educational institutions, as well as the idea of saving people's time, are among the most important reasons that led to the introduction of the concept of distance education into our lives. Educators who are looking for alternative systems to eliminate inequality of opportunity have made significant improvements in distance education (Aka, Bayram, Peker & Vural, 2019; Duman, Horzum & Gökmen, 2016). Distance education, which emerged and developed by mail in 1728, has progressed with today's technology (Ak, Oral & Topuz, 2018). Although distance education has emerged as an alternative to traditional education, it is beginning to cease to be an alternative depending on the evolving conditions of the world. Distance education activities are increasing day by day

depending on the new conditions brought about by the world order (Ecil, Sözen & Şahin, 2014).

The inadequacy of the traditional understanding of education in reaching the student once again emphasizes the necessity of distance education. Throughout the history of the world, humanity has had to face too many disasters and epidemics. These disasters and epidemics in the history of humanity have affected the education and training life and caused traditional education to be unable to be done. Distance education has been a very important vision to eliminate this problematic situation in education and training (Kurnaz & Serçemeli, 2020). It is aimed to reintroduce individuals who have to fulfill their daily responsibilities and are therefore deprived of the educational process to education (Kırık, 2014). Distance education has an important place in the lifelong learning approach with the opportunities it offers (Mercan, 2018). Distance education also provides an important benefit to the educational budgets of countries by providing the opportunity to meet the educational needs of individuals whose age, interests, abilities, working principles are different and who have educational disabilities for various reasons. In addition, distance education aims to reach all segments of society, meet the educational needs of individuals and reveal the entrepreneurial spirit of individuals, significantly helping the personal development of individuals (Ekici, 2003). In this process, the student and the teacher continue the educational process by communicating with each other, albeit in different environments. Individuals who cannot come to educational institutions for various reasons and stay away from education can attend classes from their homes, outside the city or even abroad, regardless of time and place, without a school environment (Şahin, 2021).

21. with the development and change brought by the century, the use of computers in education and training is increasing day by day. It is observed that the use of computers in industrialized countries began in the 1970s in Turkey with the development of computer-aided programs in education and training since 1984. The use of computers in education and training in Turkey was effectively initiated with a project by the Ministry of National Education (MEB) in 1984-1988. (Akpınar, 2006). Universities should aim to provide qualified education to their students by increasing their support for distance education over time. It is observed that 83,103 students out of 7,541,890 registered students studying in higher education institutions (YÖK, 2020) are studying from distance education (YÖK, 2020).

The fact that the distance education system is spreading day by day in higher education institutions and the world is dealing with an epidemic increases the need for distance education. The world has had to Decelerate education due to many events since the past. As in many areas due to the impact of the pandemic, it has experienced difficulties in the field of education and, as mentioned above, it has prepared the ground for the widespread use of distance education (Altıparmak, Kapıdere & Kurt, 2011).

The Purpose and Importance of the Research

In previous research on distance education, studies have been conducted to help traditional education and reach many audiences. The COVID-19 pandemic, which occurred today and caused many casualties, has affected the educational life of millions of students, as well as preventing people from social life. If we look at the history of

the world, many epidemics have occurred in the past and are likely to occur in the future. The world has Decoupled education in such epidemic processes and preferred the distance education path (Aksoy, Bozkurt, & Kurşun, 2021).

By having to participate in the distance education process in our country, traditional education has been Decommissioned and the distance education process has started. In this process, students have encountered many problems and experienced difficulties in the educational process. The aim of this study is to investigate the problems experienced by students who have Decoupled from the traditional education process and participated in distance education during the COVID-19 pandemic, as well as the solutions to these problems, and to indicate them with the findings (Akbal & Akbal, 2020).

With the work we have done, suggestions for solving the problems that occur in the distance education process are aimed. The problems experienced by the students in the distance education process will be revealed with this study and solution suggestions will be produced. Unlike other studies, this study is student-centered and will be conducted on in-depth examination of the problems experienced by students. With this study, Turkey and the world may have to give up traditional education in a possible epidemic, in which case, studies on this issue will help to provide the most qualified distance education with the least problems. With this research, it is desired to contribute to the related field by minimizing the problems encountered in the distance education process.

The point in conducting this research is to create a qualified education system in order to prevent individuals from being deprived of the education and training process if face-to-face education cannot be done, and to organize this system in such a way that it is student-centered, and to emphasize the importance of students' opinions.

It will be seen in the study to what extent distance education activities are carried out within the framework of the opinions of teacher candidates, and what kind of problems distance education causes, and what is the current state of education and training. What distance education activities will add to education and training life and to what extent they will make a difference from the usual order of face-to-face education, will these differences reflect positively or negatively on the education and training life of teacher candidates will be one of the important questions that the research is looking for answers to.

With this study, the opinions of the students who are in the distance education process about the process will be included. During this process, answers to the following questions will be sought.

1. What are the advantages and disadvantages of distance education?
2. Does the student participate fully in distance education courses?
3. Is communication between students provided Decisively in distance education courses?
4. Is it possible to socialize and interact between individuals Decisively in distance education courses?
5. Is it done with the full meaning of measurement and evaluation in distance education?
6. What are the technical difficulties experienced in distance education?

7. How is the suitability of the courses for distance education?
8. What is the biggest or most important problem you have encountered in the distance education process?

In today's education system, where distance education is very important, this work will be carried out with the aim of student-centered evaluation of the program by taking the opinions and ideas of the students in the system about the program. The findings and results to be obtained from this study will reveal the problems encountered in the implementation of distance education and show the need for effective integration of distance education into education, not as an alternative (Asandaş & Hacicaferoğlu, 2021).

Method

The Pattern (Model) of the Research

This study, which aims at Distance Education Experiences of Social Studies Teacher Candidates, was conducted with semi-structured interview technique based on qualitative research approach. Semi-structured interview; It is a type of interview that allows the research to go beyond the planned and provides the flexibility of the researcher to make changes to the questions. In a semi-structured interview, the researcher can simultaneously use both single-choice answers and an in-depth examination of the work done in the relevant field (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2012).

In this study, the phenomenology (phenomenology) pattern, which is a qualitative research method, was used in order to keep the perception and ideas of the students in the foreground. The reason for using this method is that it is a study to be done with an interview form and that phenomenology is an important pattern consisting of experiences. In addition, this pattern was preferred in terms of suitability for the purpose, since the experiences will be discussed in interviews with students participating in distance education courses.

The Participants of the Research

The research was conducted in the spring semester of the 2020-2021 academic year with the participation of teacher candidates from each class studying at the Department of Social Studies Teaching Program of the Nizip Faculty of Education of Gaziantep University. The problems encountered by teacher candidates in the distance education process and the solution suggestions against them will be discussed as the main criteria. The criterion sampling method, one of the sampling methods, was used in the research.

Social studies teacher candidates who are studying at Nizip Faculty of Education have been identified. In the determination of teacher candidates, students from each class were determined on the basis of volunteering. 4 Due to the fact that they see more course content in the research and the possibility of more qualifications in their opinions. The weight is given to the teacher candidates who are studying in the classroom.

By obtaining the necessary permissions from the faculty where the social studies teacher candidates who make up the working group are studying, the collection of opinions has been started. In this direction, the necessary planning has been made for the interview with the teacher candidates. Social studies teacher candidates were informed about the purpose of the interview, the problem situation and sub-problems, and the interview process. During the interview process, our participants were informed that we can terminate the interview at any time and leave questions unanswered. The interviews have been arranged to be held at the appropriate time so that the social studies teacher candidates can give the most appropriate answers to the research. Information about the gender, class information and age of the teacher candidates who participate in the semi-structured interview form are given below.

Table1. Distribution of the Gender Characteristics of the Participants in The Semi-Structured Interview Study

Gender of the Participants	Frequency	Percent (%)
Female	29	%64,44
Male	16	%35,56
Total	45	%100

Data Collection Tools

Due to the pandemic that affected the whole world during the data collection phase of the research, the interviews were rearranged depending on the availability of teacher candidates. Due to the difficulties caused by the pandemic period and the health problems that have arisen, some of the interviews were conducted face-to-face and some of them were conducted with an online interview. Of the study, research problem and sub-problems, and the problems they face from these experiences and experiences of our participants in distance education solution proposals for these problems created by the researcher in order to determine whether the similarities and differences between the open-ended questions, semi-structured interview form was used. In our research, 14 open-ended questions were asked to obtain the distance education experiences of social studies teacher candidates and their opinions within the framework of these experiences. Care has been taken to create these questions, which constitute the draft semi-structured interview form, in such a way as to allow in-depth analysis of teacher candidates' views on distance education. In the preparation of the research questions, the literature was examined and a semi-structured interview form prepared with 14 open-ended question techniques was created in order to determine the opinions of social studies teacher candidates on the subject. The semi-structured interview form was presented to five experts in the field of social studies education in the preparation of the draft.

Analysis of the Data

In order to apply the semi-structured interview form, some of the interviews were conducted face-to-face and some of the interviews were conducted online. Due to the pandemic, interviews could not be conducted face-to-face, so some of the interviews were conducted by online forms via e-mail. On the other hand, the participants

were given the necessary information and the necessity of giving sincere and sincere answers to the questions was emphasized. On the other hand, the names of the teacher candidates participating in our research are not used, and the code names are Ö1, It was used in the form of Ö45 and the necessary information was given to the teacher candidates. The data collected in the direction of interviews with social studies teacher candidates were evaluated through content analysis. Direct citations were made to the study and an attempt was made to clarify the analyses.

Results

Findings for the First Subproblem

The answers of the participants to the question about the advantages and disadvantages of distance education were analyzed and given in Table 2.

Table 2. Findings on the Advantages and Disadvantages of Distance Education.

Codes	Participants	Frequency (f)	Percent (%)
Economy	Ö1, Ö2, Ö3, Ö6, Ö10, Ö11, Ö12, Ö13, Ö14, Ö15, Ö18, Ö19, Ö20, Ö34, Ö35, Ö42, Ö43,	21	% 46,67
Technical Failures (Technological equipment deficiencies)	Ö2, Ö4, Ö6, Ö9, Ö11, Ö14, Ö15, Ö16, Ö21, Ö23, Ö24, Ö25, Ö28, Ö33, Ö37, Ö38, Ö39, Ö42,	18	% 40
Flexibility of Access to Education	Ö1, Ö2, Ö3, Ö4, Ö5, Ö7, Ö8, Ö9, Ö10, Ö11, Ö13, Ö14, Ö15, Ö16, Ö19, Ö20, Ö21, Ö26, Ö27, Ö31, Ö32, Ö42, Ö45	24	% 53,33
Lack Of Interaction	Ö1, Ö2, Ö5, Ö6, Ö7, Ö8, Ö9, Ö12, Ö13, Ö14, Ö17, Ö21, Ö22, Ö24, Ö25, Ö27, Ö31, Ö36, Ö38,	19	% 42,22
The Insecurity of Measurement and Evaluation	Ö4, Ö15, Ö37, Ö41,	4	% 8,89
Web Access Problems	Ö11, Ö12, Ö19, Ö33, Ö40,	5	% 11,11
Lack Of Experience	Ö26, Ö29, Ö30,	3	% 6,67

Table 2. when examined, it is seen that distance education answers the most about the flexibility of access to education (53.33%) and the least about the lack of experience (6.67%).

When the table regarding the advantages and disadvantages of distance education of our participants is examined, it is seen that the participants touch on the advantages and disadvantages of distance education activities. The participating teacher candidates stated in their opinions that it is advantageous to enter distance education classes regardless of the location. Again, according to the opinions of the teacher candidates, they see the Decency feature among the advantages of distance education due to the lack of physical environments and the fact that there are expenses such as eating and drinking to go to these environments and that these environments are not in distance education. The participating teacher candidates agreed in their views that there are disadvantages of distance education and that the most important of them is the inability to interact. Since the lack of interaction and technological Decisiveness cause negative consequences in terms of interaction between students and participation in classes, it is observed that teacher candidates express negative opinions about distance education. Following this, 6.67% of our participants stated that the distance education policies applied in our country have come up with a result that can be called unsuccessful due to the lack of a similar or substitute activity and the lack of compliance of the people who study with the distance education conditions in the history of the education system in our country, according to the opinions of some of them, which were formed by 6.67% of our participants.

"In my opinion, distance education has more disadvantages than advantages. The advantages are savings in time, transportation and some expenses, while the disadvantages are that students' rights to learn by living by doing are taken away from their hands, which leads to difficulties in collecting important competencies that students should have during the lesson, such as focus, willingness and paying attention to the subject." (Ö,12 Interview Date: 02.05.2021, 15.45).

"Recording the lesson is an advantage for me. Because when we don't fully understand the subject, we can open it again and follow up. It can be a problem for people who take lessons from the top. It is not possible to attend two classes at the same time. Even if it is, it is impossible to understand the other lesson while listening to one." (Ö,10 Interview Date: 02.05.2021, 13.30).

"As an advantage of distance education, students can continue their education where they left off during the current coronavirus days. In addition, they can follow the lesson they missed or the lessons they need to repeat. October. As a disadvantage, students are faced with an education system that they have never seen before and are not used to. Problems such as interrupting exams due to any disconnection during exam times, such as midterm and final courses, can be sorted out." (O4, Interview Date: 08.05.2021 13.30).

Findings for the Second Subproblem

The answers of the participants to the question about their participation in distance education (mentally and psychologically) were analyzed and given in Table 3.

Table 3. Findings Regarding the Student's Full Participation (Mental and Psychological) in Distance Education Courses

Codes	Participants	Frequency (f)	Percent (%)
Lack of Environment	Ö1, Ö2, Ö7, Ö10, Ö11, Ö12, Ö13, Ö18, Ö21, Ö24, Ö25, Ö27, Ö28, Ö29, Ö31, Ö33, Ö35, Ö37, Ö38, Ö44,	20	% 44,44
Student Awareness	Ö3, Ö5, Ö9, Ö32, Ö34, Ö41,	6	% 13,33
Lack Of Experience	Ö4, Ö19, Ö21, Ö25, Ö30, Ö40, Ö42, Ö43, Ö45,	9	% 20,00
The Problem of Focusing	Ö6, Ö7, Ö8, Ö11,	4	% 8,89
Lack Of Supervision	Ö5, Ö6, Ö7, Ö8, Ö11, Ö14, Ö15, Ö16, Ö19, Ö20, Ö22, Ö26, Ö28, Ö43,	14	% 31,11
Student Frivolity	Ö1, Ö2, Ö4, Ö6, Ö7, Ö8, Ö11, Ö13, Ö15, Ö16, Ö18, Ö20, Ö22, Ö23, Ö26, Ö36, Ö39, Ö45,	14	% 31,11

Table 3. when examined, it is seen that they gave answers most about the lack of environment characteristic of distance education (44.44%) and least about the focusing problem characteristic (8.89%).

According to Table 3, the answers of teacher candidates to the question that is the subject of our research are that most of the teacher candidates participating in distance education have problems attending distance education classes and cannot fully participate in the lessons (mental and psychological). Teacher candidates state that the distance education process affects students psychologically and causes frivolity in students. Prospective teachers come to the consensus that distance education is far from them because distance education is a new system and they are used to the classroom environment. Teacher candidates have similar views on distance education, and at the most important point of these views, they complain that distance education is far from the classroom environment and that not every student can have an equal environment.

It has been stated that teacher candidates encounter multiple problems in their participation in the lessons and that their attitudes to the lesson have changed while dealing with this problem. When the answers given by the teacher candidates in terms of full participation in distance education are examined, it is seen that the teacher candidates have a negative opinion on the subject. It was seen in the statements of the teacher candidates that 44.44% of the students had problems caused by the environment and that they had a lot of problems in this regard. Ö1 supports this with his statements;

“No, I don't think so, because we are in a home environment, the physical environment of each student is different at school, while everyone is studying in the same environment, everyone is studying in

different environments in distance education. I don't have a room at home, I attend classes in the room where I stay with my family, and of course, there may be events that will create a distraction, so I can't fully participate in the lesson. Apart from these, we can attend classes in distance education and take care of different jobs, for example, my mother can call me during the lesson, and the lesson is interrupted, and we literally cannot concentrate on the lesson because it is convenient to be at home” (Ö1, Interview Date: 06.05.2021 14.30).

The answers given by different teacher candidates were also interviewed for similarity.

“I don't think that in distance education classes the student literally did my killer. Because no matter how much we try to give ourselves in the lessons, many sounds can come from around because we are at home. Both mentally and psychologically, we are very comfortable at home listening to lectures in our pajamas. Because the environment and the situation we are in pushes us to this. In addition, while listening to the lesson, any family member can enter the room and distract you. In addition, the student has the right to enter the course he wants when he wants. Therefore, when a student does not enter a live lesson, he does not consider himself left behind from the lesson. In addition, the teacher does not know who is listening to the lesson and how, so he focuses only on the topic he needs to tell. This makes the student realize that there is no obligation to listen in face-to-face education, and the student cannot fully participate in the lesson” (Ö28, Interview Date: 03.05.2021 13.30).

The result revealed in the analysis of the opinions of teacher candidates is that the lack of classroom environment is noticeable in terms of ensuring full participation of students in distance education courses. Students are considering the low interest in distance education due to the habits brought about by face-to-face education. Students come to the consensus that distance education causes a gradual decrease in the interest and seriousness of the lessons due to these negativities and report negative opinions about distance education.

Findings for the Third Subproblem

The answers given by the participants to the question about the communication between the students of distance education were analyzed and given in Table 4. The answers given by the participants to the question about the communication between the students of distance education were Deciphered.

Table 4. when examined, it is seen that distance education gives the most answers about the feature of confusion in communication (35.56%) and the least about the feature of weakening in togetherness (6.67%). 35.56% of the social studies teacher candidates who participated in our semi-structured interview form emphasized that there were problems in providing communication in distance education courses and that distance education did not work efficiently enough in terms of communication and that communication was not provided as needed. In the answers given by teacher candidates to the research question, it is stated that distance education is insufficient for communication and this inability causes confusion during communication with students.

Table 4. Deci-sions Related to Communication between Students of Distance Education

Codes	Participants	Frequency (f)	Percent (%)
Confusion in Communication	Ö1, Ö2, Ö6, Ö7, Ö9, Ö16, Ö22, Ö25, Ö32, Ö33, Ö34, Ö35, Ö37, Ö38, Ö43, Ö45,	16	% 35,56
Decreased Interest in the Lesson	Ö2, Ö5, Ö8, Ö11, Ö12, Ö14, Ö15, Ö27, Ö28, Ö41,	10	% 22,22
Inability to Socialize	Ö3, Ö9, Ö14, Ö32,	4	% 8,89
By application	Ö1, Ö4, Ö10, Ö17, Ö18, Ö20, Ö21, Ö33, Ö42,	9	% 20
Weakening the Union	Ö19, Ö30, Ö39,	3	% 6,67
Inability to Share Information	Ö27, Ö29, Ö30, Ö31,	4	% 8,89
Insincerity	Ö33, Ö35, Ö38, Ö40, Ö44,	5	% 11,11

They suggest that teacher candidates see communication as one of the most important shortcomings in the distance education process and that students' interest in the lessons decreases due to the inability to provide this communication. The opinions of the teacher candidates that the students will have problems in their social lives due to the fact that there are such problems in communication are also interesting.

The opinions of teacher candidates that communication can only be done with practice and that this cannot be enough also come to the fore. Also, if there was a consensus with regard to remedying this lack of communication, lack of Fixed of failure that students get to socialize with dishonesty among themselves, and unity has a negative impact on academic achievement of students in these accept the view that weakening.

"I think there is no communication between students because I don't think there is enough information exchange by writing. Dec. Because not enough communication is provided, Decouples and communication difficulties arise between students. As a result, the student's interest in the lesson may gradually decrease. For an active learning environment, it can be said that distance education, in which students should have good relationships with each other, has many negative features at this stage" (Ö2, Interview Date: 07.05.2021 11.30).

"Unfortunately, communication between students is Decoupled. We could work together on topics we didn't know in the classroom and generate ideas, but we can't do this in a virtual environment. Everyone has work to do after the distance education lesson is over (housework, or similar work) we can't talk about that lesson for a long time, or we go through cursory with short conversations" (Ö8, Interview Date: 10.05.2021 15.45).

According to the opinions of 22.22% of the other prospective teachers in our study group, they state that there are serious problems with communication in distance education courses. They are very uncomfortable to this problem of teacher candidates and teacher of these restrictions and restrictions among themselves in communication with the teachers ' interest in lessons, and reduces highlights in normal life becoming more passive.

“The time limit given in online courses and therefore the instructors are in a hurry to raise the course topics. Therefore, the interaction of the students neither among themselves nor with the instructor can be ensured Decisively. One of the problems caused by this is that students cannot socialize with their friends, and therefore the bond they have established with their friends weakens and causes the student's enthusiasm and desire for classes to decrease” (Ö14, Interview Date: 13.05.2021 15.30).

Findings for the Fourth Subproblem

Participants in distance education courses socialization and their answers to the question about the interaction between individuals were analyzed and are presented in Table 5.

Table 5. Findings on Decommunization and Inter-individual Interaction in Distance Education Courses.

Codes	Participants	Frequency (f)	Percent (%)
The System Is New	Ö3, Ö18, Ö22, Ö27, Ö32,	5	% 11,11
Face-To-Face Environment	Ö1, Ö2, Ö6, Ö7, Ö10, Ö12, Ö14, Ö17, Ö23, Ö26, Ö29, Ö34, Ö35, Ö37, Ö38, Ö41,	16	% 35,56
One-Sided Interaction	Ö4, Ö5, Ö8, Ö11, Ö16, Ö19, Ö20, Ö24, Ö25, Ö30, Ö33, Ö36, Ö40, Ö43,	14	% 31,11
Insufficient Time	Ö15, Ö28, Ö44, Ö45,	4	% 8,89
Student Effort	Ö21, Ö39,	2	% 4,44

Table 5. when examined, it is seen that they gave the most answers about the face-to-face environment feature (35.56%) and the least answers about the student effort feature (4.44%) in distance education courses.

According to Table 5; The opinion that the intended socialization and interaction cannot be fully realized in distance education courses comes to the fore. It is revealed that students and teachers should be in constant communication for the purpose of socialization in distance education courses, but since this situation is not very possible in distance education courses, interaction between each other and teachers cannot be made at the desired level for students to socialize Decently. As stated by the participant candidate of social studies teacher Ö37, it was stated that there were problems with socialization and interaction in distance education courses and that socialization could not be done much. The importance of sharing the same environment and making eye contact

for effective communication and socialization of teacher candidates was emphasized, and in order for effective communication and intended socialization to occur, it was emphasized that the virtual classroom environment should be eliminated.

“No, I don't think it was done. For effective communication, students need to share the same environment and make eye contact. The rest of the communication is far from sincerity and not effective. For effective communication, it is necessary to have a physical environment and to eliminate the virtual environment” (Ö37, Interview Date: 23.05.2021 13.00).

“We are having problems with socializing because for us, socializing means spending time together face to face Decently. In other words, the intended socialization is not experienced, only thanks to our distance education lessons, we are not completely isolated from each other. As for the interaction between individuals, I think that the messaging in class groups is positive. Dec. Everyone can answer everyone, everyone can talk to everyone. I think the interaction between individuals takes place in a positive way because we miss the school, the classroom and our friends” (Dec 26, Interview Date: 18.05.2021 11.00).

Findings for the Fifth Subproblem

The answers of the participants to the question about the feasibility of measurement and evaluation in distance education have been analyzed and given in Table 6.

Table 6. Findings on the Full Implementation of Measurement and Evaluation in Distance Education.

Codes	Participants	Frequency (f)	Percent (%)
Copy	Ö2, Ö7, Ö8, Ö15, Ö18, Ö23, Ö24, Ö27, Ö28, Ö31, Ö32, Ö33, Ö36, Ö37, Ö39, Ö41, Ö45,	17	% 37,78
The Time Problem	Ö4, Ö6, Ö26, Ö40,	4	% 8,89
Inequality of Opportunity	Ö11, Ö16, Ö28, Ö29, Ö42,	5	% 11,11
Inefficiency of Lessons	Ö9, Ö13, Ö17, Ö22,	4	% 8,89
Face-to-Face Assessment	Ö1, Ö5, Ö12, Ö14, Ö19, Ö20, Ö21, Ö25, Ö34, Ö38, Ö43,	11	% 24,44
Diversity of Questions	Ö10, Ö30, Ö35, Ö44, Ö45,	5	% 11,11
Student Awareness	Ö30,	1	% 2,22

When Table 6 is examined, it is seen that they gave the most answers about the copy feature (37.78%) and the least answers about the student awareness feature (2.22%) in distance education measurement and evaluation.

According to Table 6 of our participants, make up a large part of their answer for the research problem, and %37,78 distance education students in research as a percentage of the most discussed point is very low and the reliability of assessments and evaluations made by the trainees in the exams learning refers to the opinion that public opinion is in the nature of participation in illegal ways. It is a common opinion that there are problems in the measurement and evaluation of distance education and that measurement and evaluation will not be healthy in terms of not being able to provide complete control over students.

“I don't think you do a good enough assessment and evaluation in the distance education program. For example, how fair the exams are is a relative situation. Some students can take others to the exam instead of themselves or do it via the Internet. No matter how smooth the evaluations are, they can lead to injustice among the students” (Dec 2, Interview Date: 07.05.2021 11.30).

“In the measurement and evaluation phase, I believe that distance education is not useful at all. Others can take the exams, it is very easy to copy, and teachers make it easier by asking multiple-choice questions, which makes the student lazy” (Ö37, Interview Date: 23.05.2021 13.00).

Another opinion that our participants touched upon and underlined with importance was the opinion that measurement and evaluation in distance education courses should be evaluated face-to-face, not by distance education. Participants believe that measurement and evaluation will be carried out in a healthy way only under the supervision of the teacher and by sharing the same environment.

“I do not think that measurement and evaluation in distance education can be done in full sense, because for the reliability of measurement and evaluation, face-to-face interviews with students and tests in which the teacher and student are in the same environment should be applied. This is important in terms of its reliability and validity. While systematic mistakes can be made even in face-to-face assessments, there are more likely to be mistakes in distance education” (Ö12, Interview Date: 02.05.2021 15.45).

Based on their expression of our participants to the research problem of assessment and evaluation in distance education courses and literally could not have done one of the reasons why the teacher as inefficient in terms of time and go easy on the question of multiple-choice questions to ask a lot of teachers has a negative impact on the measurement and evaluation of the opinion that between the candidates is an important point.

“I don't think that measurement and evaluation are done literally, our teachers, who usually ask classical questions in face-to-face education, usually ask multiple-choice questions when distance education starts, in this case, it causes the student to memorize more. The most important factor in making the measurement and evaluation literally is diversity, because there is no diversity in distance education, it cannot be done literally” (Ö10, Interview Date: 02.05.2021 11.30).

Findings for the Sixth Subproblem

The answers of the participants to the question about the technical difficulties experienced in distance education courses and their overcoming were analyzed and given in Table 7.

Table 7. Technical Difficulties Experienced in Distance Education Courses and the Table of Findings on Overcoming Them

Codes	Participants	Frequency (f)	Percent (%)
Network Problem	Ö1, Ö2, Ö8, Ö9, Ö10, Ö14, Ö15, Ö16, Ö18, Ö24, Ö29, Ö30, Ö34, Ö38, Ö40, Ö44, Ö45,	17	% 37,78
System Crash	Ö1, Ö2, Ö5, Ö7, Ö11, Ö12, Ö14, Ö17, Ö18, Ö20, Ö21, Ö25, Ö27, Ö28, Ö31, Ö35, Ö37, Ö39, Ö43,	19	% 42,22
Development of Infrastructure	Ö3, Ö4, Ö13, Ö20, Ö23, Ö25, Ö28, Ö29, Ö40,	9	% 20
Course program	Ö4, Ö11, Ö41,	3	% 6,67
Economic Support	Ö6, Ö20, Ö32, Ö33, Ö34, Ö36, Ö42, Ö45,	8	% 17,78
Power Outage	Ö7, Ö8,	2	% 4,44
Expert Help	Ö19, Ö22, Ö26,	3	% 6,67

Table 7. when examined, it is seen that they gave the most answers about the system crash feature (42.22%) and the least answers about the power failure feature (4.44%) in distance education courses.

According to Table 7, the intensity of the answers given by teacher candidates to the research problem is based on the statement that the system has become unusable due to too much intensity and distance education courses have been interrupted. 42.22% of our participants frequently say that the system freezes and the screen becomes unusable due to the simultaneous use of students in distance education courses.

“Due to the fact that too many people enter the system used for distance education at the same time, the access to the system is disrupted or there is a disconnection in the connection during the lesson. The problem of some students' lack or insufficient internet access, disruption of access to the System and disconnections during the lesson can be solved by strengthening the infrastructure of the system. For students who do not have Internet access or are inadequate, telecom companies have provided free internet to their users, especially for use in distance education courses during this process we are experiencing” (Ö20, Interview date: 27.05.2021 13.00).

“There are many technical difficulties experienced in distance education. These are: The system crashes, getting kicked out of the lesson when disconnected, problems due to clutter at the entrance to

the lesson, the recorded lesson is sometimes deleted, the teachers sometimes forget to record the lesson because a student who watches the lesson later misses the beginning of the lesson, some of our teachers have difficulties such as getting the lesson done at another time due to the difficulties, they have in entering the lessons. In order to overcome these difficulties, first of all, the distance education infrastructure needs to be good and new. Students and teachers who are weak in distance education should be informed about this issue” (Ö28, Interview Date: 03.05.2021 13.30).

Based on the statements of our participants; statements aimed at solving the problems experienced in distance education courses, statements about improving the infrastructure of the country and providing material and moral support to students receiving education have an important share.

“The most important of the technical difficulties are the Internet problems and system login errors. The university that provides distance education courses should meet the internet needs of all students and correct the system errors experienced. They can make the complex structure of the system even simpler, and the system should be accessed from all devices, and students should be provided with material and moral support. The system becomes more efficient when errors are corrected” (Ö29, Interview Date: 20.05.2021 13.30).

Participants' answers, although the technical difficulties experienced as a percentage of the share has the common feature of the expression for the solution of the system of distance education to students and an expert guide that will help you minimize the application and a detailed time course and intensity of systemic problems that you can take appropriate curriculum. The participants concentrate on these statements and think that the solution is in this direction.

“The lack of computer or webcam or internet facilities for some students in distance education constitutes a barrier to access in distance education. In addition, the lack of experienced, technologically knowledgeable specialists can cause many problems, especially technical ones” (Ö19, Interview Date: 12.05.2021 13.00)002E

“During school hours and in the lower structure of the system can be strengthened exam time connection problem, or are not on the course or exam at the same time as much as possible to ensure that school instead of a university curriculum and examination program editable” (O4, Interview Date: 08.05.2021 13.30).

Findings for the Seventh Subproblem

The answers given by the participants to the question about the suitability of the courses for distance education were analyzed and given in Table 8. When Table 8 is examined, it is seen that they gave answers most about the compensatory education feature of distance education (42.22%) and least about the mixed education feature (2.22%).

Table 8. Table of Findings on Whether the Courses are Suitable for Distance Education

Codes	Participants	Frequency (f)	Percent (%)
Teaching Practice	Ö1, Ö3, Ö4, Ö10, Ö14, Ö15, Ö16, Ö19, Ö20, Ö22, Ö33, Ö37, Ö44, Ö45,	14	% 31,11
Compensatory Training	Ö2, Ö7, Ö9, Ö11, Ö12, Ö13, Ö14, Ö17, Ö24, Ö25, Ö26, Ö29, Ö30, Ö32, Ö35, Ö36, Ö38, Ö41, Ö43,	19	% 42,22
Homework	Ö5, Ö6, Ö8, Ö18, Ö23, Ö28, Ö34, Ö39, Ö40,	9	% 20
Equipping the System	Ö21, Ö27, Ö31,	3	% 6,67
Coeducational	Ö42,	1	% 2,22

According to Table 8, based on the statements given by teacher candidates in terms of the suitability of courses for distance education, distance education focuses on the opinion that the suitability of courses for distance education varies depending on the content of the courses. It is emphasized that it is impossible for teacher candidates to teach the teaching practice (internship) course by distance education and that this course should be given face-to-face.

“Due to the fact that I study in a verbal section, many of my courses are suitable for distance education. For example, our teachers who enter history classes can easily create the atmosphere and lecture narrations they create in face-to-face education in distance education. The only problem is that when we ask our teachers a question in face-to-face education, our teachers, who can answer a long question for a long time, have greatly reduced their response time due to the limited time in distance education. I also have classes that are not suitable for distance education. The teaching practice lesson can be given as an example of this topic. It is impossible for us to carry out this course, which we go to secondary schools in our area on a certain day of the week, with distance education. Applications such as homework or exams are not enough to gain the skills that are intended to be given to us students in this course” (Ö20, Interview Date: 27.05.2021 11.00).

Our teacher candidates are similar on the view that distance education is not suitable for some courses and that these courses cannot be processed efficiently with distance education. As a solution for teacher candidates, they have prioritized the necessity of face-to-face compensatory education by taking the necessary precautions for courses that are not suitable for distance education.

“Now there is a situation that not every stone sits in every gap, we had some lessons that were suitable for distance education, and some were not, for example, in the Ottoman language lesson, personally, I had a lot of trouble, because the articles were in Ottoman, I literally could not read. In terms of the nature of the training for such courses, it was necessary to give it to everyone again the next year.

Unless there is a systemic problem, of course, another alternative should be offered to those studying in the last grade” (Ö17, Interview Date: 12.05.2021 13.30).

Our participants emphasize that the suitability of the courses they take for distance education has changed and they focus October on the necessity of minimizing the limitations of distance education by giving assignments in addition to these courses. Participants emphasize that some courses are insufficient with distance education, and teachers should eliminate this inadequacy with assignments.

“Courses that are not suitable for distance education can be done face-to-face. Although my lesson is about me, I don't have a lesson to force. It is also important to support the lessons by giving assignments so that the lessons will be more efficient by reinforcing them” (Ö39, Interview Date: 27.05.2021 13.45).

The most striking expression of the statements given by our participants about the research problem is the view that distance education and face-to-face education should be given together. Dec. In the period when there are limitations of distance education and these limitations, the necessity of face-to-face education is kept in the foreground.

“In the context of the suitability of distance education courses, we can say that while some courses can be taken by distance education, some courses cannot be taken by distance education. For example, there are no practical courses among the courses that can be taken by distance education. Dec. Range The solution to this is that the courses are both official and offline, that is, the existence of a mixed Education system will keep this process more balanced” (Ö42, Interview Date: 25.05.2021 15.45).

Findings for the Eighth Subproblem

The answers of the participants to the question about the biggest problem encountered in the distance education process were analyzed and given in Table 9. When the table is examined, it is seen that they gave answers most about the inability to get used to the process of distance education (15.56%), and least about the lesson time and teacher awareness (4.44%).

According to Table 9, in the light of the data we received for the research problem, the participants suffer technical failures due to the lack of infrastructure, and these technical failures significantly impede the continuity of distance education. It is important to emphasize that the most important problem in distance education courses is the technical glitches that are not in the hands of the *students*.

“The biggest problem I faced was that I could not enter the system and I could not attend classes because I could not enter the system. My second problem is that I had problems sending assignments to teachers because of the system. Another problem is the inability to return to the previous question

during the exam and the problems such as the fact that our teachers gave too short time” (Ö21, Interview Date: 25.05.2021 13.30).

Table 9. Findings Related to the Biggest Problem Encountered in the Distance Education Process.

Codes	Participants	Frequency (f)	Percent (%)
Period	Ö4, Ö14	2	% 4,44
Not Getting Used to The Process	Ö5, Ö9, Ö16, Ö22, Ö29, Ö36, Ö42	7	% 15,56
External Factors	Ö8, Ö11, Ö12, Ö31	4	% 8,89
Technical glitches	Ö1, Ö2, Ö7, Ö8, Ö10, Ö11, Ö12, Ö14, Ö15, Ö16, Ö19, Ö21, Ö23, Ö24, Ö25, Ö30, Ö31, Ö33, Ö34, Ö37, Ö38, Ö39, Ö40, Ö44, Ö45	25	% 55,56
Impossibility	Ö17, Ö32	2	% 4,44
Virtual Environment	Ö18, Ö20, Ö28, Ö35, Ö43	5	% 11,11
Knowledgeable Guide	Ö22, Ö23, Ö27	3	% 6,67
Teacher Awareness	Ö26, Ö41	2	% 4,44

Regarding the sustainability of distance education courses, it is important for our participants to emphasize that teachers should prioritize distance education while increasing awareness of distance education and approaching students. The most important point that our participants touch on about distance education is that it is important to continue education under equal conditions, with equal opportunities and aware of the process.

“I didn't have a big problem, just something that made me nervous. When our teachers give homework, they read hundreds of assignments at the control stage after they have delivered them. And that's for me, 'I wonder if they read the entire assignment without skipping any lines?' the question is why. Of course, we would like to read the entire assignment that we have prepared with effort and care, but there are so many students that I don't know if our teachers can keep up with this, and this is an important problem for me” (O26, Interview Date: 18.05.2021 11.00).

“The biggest problem was that we didn't have internet in the early days of the pandemic and I didn't have a computer, I took care of them, but teachers are taking on too much responsibility because it is distance education” (O32, Interview Date: 19.05.2021 11.00).

Discussion and Conclusion

In this study, it is aimed to examine the situation of distance education in our educational life and solution proposals in line with the opinions of teacher candidates. In this direction, the opinions of 45 social studies

teacher candidates were taken. As a result of the examination of the opinions of social studies teacher candidates, it is understood that distance education has ceased to be an alternative education during the pandemic period and has become the center of our education and training life. The fact that distance education has started to be used excessively throughout the world also leads to an increase in studies on distance education. In this study, which developed within the framework of the opinions of social studies teacher candidates, we can say that we have concluded that distance education is different from face-to-face education and cannot replace face-to-face education.

It is seen in the opinions of teacher candidates that there are advantages and disadvantages of distance education. During the negotiations, especially the lack of infrastructure and technical failures come to the fore. The fact that there is a communication problem in distance education, which is often emphasized in the opinions of teacher candidates, and the lack of interaction at the desired level also leads to the fact that students look at distance education negatively.

It is an undeniable fact that the school has an important vision in our education and training life. The high participation rate of students in face-to-face educational environments also affects their academic achievements and social skills. On the other hand, the low participation rate of distance education compared to face-to-face education causes negativities in terms of student development. According to the opinions of the teacher candidates, it turns out that the desired progress in the social development of the students cannot be shown in the courses taken by distance education. The results of the evaluations of social studies teacher candidates in terms of distance education and face-to-face education are reflected in their statements. It turns out that distance education of teacher candidates is less efficient than face-to-face education. The fact that distance education is not suitable for the content of the courses in particular has caused the perspectives of teacher candidates to be negatively affected. Considering that distance education and face-to-face education will always exist in our education and training life, the conclusion prevails that distance education cannot replace face-to-face education and will remain in the form of an alternative education system.

As a result of this study, the current state of distance education has been shaped in line with the opinions of teacher candidates, and it is concluded that distance education courses will be less efficient and the quality of education will decrease even more. On the other hand, it is undeniable that distance education will be a good alternative education, and even integrating face-to-face education and distance education will bring a new vision to our education and training life. The high probability of providing both distance education and face-to-face education together in the coming years due to the impact of today's world conditions and technological developments suggests that there will be significant changes in the educational policies of countries.

Recommendations

As a result of the research process and the results, some suggestions were presented. The recommendations in

question are listed below:

- It is necessary to eliminate the lack of infrastructure and network problems, which are the most frequently mentioned issues in the opinions of teacher candidates.
- There are a lot of technical problems encountered in distance education courses and it is necessary to have a technical expert to deal with these encountered problems.
- The distance education system should be further developed and the interaction of students and teachers should be increased.
- In order to eliminate the doubts of teacher candidates about measurement and evaluation in the distance education system and to make the measurement and evaluation more reliable, it is necessary to eliminate the deficits of the system by carrying out the necessary studies.
- Due to the flexibility of the distance education system, it is proposed to investigate in depth the psychological effects of teacher candidates and individuals participating in distance education activities in terms of learning and teaching.

Acknowledgements

This study is produced from Muhammet Seçkin's master's thesis.

References

- Ak, A., Oral, B., & Topuz, V. (2018). Marmara Üniversitesi teknik bilimler meslek yüksekokulu uzaktan öğretim sürecinin değerlendirilmesi. *Bilim, Eğitim, Sanat ve Teknoloji Dergisi*, 2(1) 74-75.
- Akbal, H., & Akbal, H. İ. (2020). COVID-19 pandemisi sürecinde uzaktan eğitim ile ilgili yaşanan sorunların öğrenci bakış açısına göre AHP yöntemi ile incelenmesi. *Bartın Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 11(22), 534-535. <https://doi.org/10.47129/bartiniibf.795863>.
- Akpınar, E. (2006). *Fen Öğretiminde Soyut Kavramların Yapılandırılmasında Bilgisayar Desteği: Yaşamımızı Yönlendiren Elektrik Ünitesi*. Dokuz Eylül Üniversitesi, (Yayımlanmamış yüksek lisans tezi). İzmir.
- Aksoy, D. A., Bozkurt, A., & Kurşun, E. (2021). Yükseköğretim öğrencilerinin koronavirüs (COVID-19) pandemi sürecinde uzaktan eğitime yönelik algıları. *Anadolu Üniversitesi Eğitim Fakültesi Dergisi*, 5(3) 287-288. <https://doi.org/10.34056/aujef.900375>.
- Altıparmak, M., Kurt, İ. D., & Kapıdere, M. (2011). E-öğrenme ve uzaktan eğitimde açık kaynak kodlu öğrenme yönetim sistemleri. *XI. Akademik Bilişim Kongresi*, 4(5), 320-321.
- Asandaş, N., & Hacıcaferoğlu, S. (2021). Koronavirüs (COVID-19) döneminde uzaktan eğitim süreci. *Mustafa Kemal Üniversitesi Eğitim Fakültesi Dergisi*, 5(7), 216-217.
- Bayram, M., Peker, A. T., Aka, S. T., & Vural, M. (2019). Üniversite öğrencilerinin uzaktan eğitim dersine karşı tutumlarının incelenmesi. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 4(3), 231-232. <https://doi.org/10.31680/gaunjss.586113>.

- Bilgiç, H. G., & Tüzün, H. (2015). Yükseköğretim kurumları web tabanlı uzaktan eğitim programlarında yaşanan sorunlar. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 1(3), 27-28.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö.E., Karadeniz, Ş. ve Demirel, F. (2012). *Bilimsel araştırma yöntemleri*. 12. Baskı, Pegem Akademi Yayıncılık.
- Ekici, G. (2003). Uzaktan eğitim ortamlarının seçiminde öğrencilerin öğrenme stillerinin önemi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 24(24), 48-49.
- Ergüney, M. (2015). Uzaktan eğitimin geleceği: Mooc (massive open online course). *Eğitim ve Öğretim Araştırmaları Dergisi*, 4(4), 15-16.
- Gökmen, Ö. F., Duman, İ., & Horzum, M. B. (2016). Uzaktan eğitimde kuramlar, değişimler ve yeni yönelimler. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 2(3), 30-31.
- Güneş, F. (2016). Bilgiden beceriye sınırsız eğitim. *Sınırsız Eğitim ve Araştırma Dergisi*, 1(1), 2-3. <https://doi.org/10.29250/sead.285463>.
- Kırık, A. M. (2014). Uzaktan eğitimin tarihsel gelişimi ve Türkiye'deki durumu. *Marmara İletişim Dergisi*, (21), 74-75. <https://doi.org/10.17829/midr.20142110299>.
- Mercan, A. (2018). *Üniversite öğrencilerinin uzaktan eğitim ile ilgili görüşleri ve hazırbulunuşlukları: afyon kocatepe üniversitesi fen edebiyat fakültesi örneği*. Afyon Kocatepe Üniversitesi, (Yayınlanmamış yüksek lisans tezi). Afyonkarahisar.
- Özmen, H., & Ekiz, D. (2013). *Eğitim Bilimine Giriş*. 6.Baskı, Pegem akademi, 2-3.
- Serçemeli, M., & Kurnaz , E. (2020). COVID-19 pandemi döneminde öğrencilerin uzaktan eğitim ve uzaktan muhasebe eğitimine yönelik bakış açıları üzerine bir araştırma. *Uluslararası Sosyal Bilimler Akademik Araştırmalar Dergisi*, 4(1), 41-42.
- Sözen Şahiner, D., & Ecil, Ş. (2014). Uzaktan eğitimde iletişimsel engeller. *Sosyal ve Beşeri Bilimler Dergisi*, 6(1), 23-24.
- Şahin, M. (2021). Dünyada ve Türkiye'de yükseköğretimde uzaktan eğitimin tarihi ve gelişim süreci. *Mustafa Kemal Üniversitesi Eğitim Fakültesi Dergisi*, 5(7), 92-93.
- Tuncer, M., & Taşpınar, M. (2007). Sanal eğitim-öğretim ve geleceği. *Elektronik Sosyal Bilimler Dergisi*, 6(20), 113-114.
- Tuncer, M., & Taşpınar, M. (2008). Sanal ortamda eğitim ve öğretimin geleceği ve olası sorunlar. *Sosyal Bilimler Dergisi*, 10(1), 126-127.
- Yüksek Öğretim Kurumu (2020, 12 24). <https://istatistik.yok.gov.tr/>. 12 24, 2020 tarihinde <https://istatistik.yok.gov.tr/>: <https://istatistik.yok.gov.tr/> adresinden alındı.