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Pre-Service Preschool Teachers' Views and Metaphorical Perceptions Towards Distance Education in The Covid-19 Pandemic Process

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Abstract: The Covid-19 pandemic process, in which some courses are given online, and some courses are given remotely, have undoubtedly deeply affected pre-service preschool teachers as well as other students. In this sense, the findings of studies that determine the views and perceptions of all stakeholders affected by the distance education system are still of great importance in terms of taking measures to change these perceptions. The focus of this study is on pre-service preschool teachers. The main difference that distinguishes the current study from other studies is that it aims to comprehensively understand the perspectives of pre-service preschool teachers by addressing their metaphorical perceptions and views on distance education. In this study, phenomenology design was used. The study group of the research consisted of 150 pre-service teachers studying at Afyon Kocatepe University-Türkiye, Department of Early Childhood Education in the fall semester of the 2020-2021 academic year. Content analysis technique was used to analyze the views and metaphorical perceptions of pre-service preschool teachers towards distance education in the Covid-19 pandemic process. As a result, while most of the pre-service teachers used negative metaphors to describe the compulsory distance education process due to the pandemic, fewer pre-service teachers used positive metaphors. Considering the results of the findings obtained in the study, it is recommended to increase the efficiency of education by including practices that increase intrinsic motivation in order to prevent the loss of motivation of faculty members and students in order to increase the efficiency in the distance education process.

Keywords: Covid-19, distance education, preservice preschool teachers, metaphors.

Highlights

What is already known about this topic:

- during the pandemic period, pre-service teachers were away from communication and interaction with peers and academics and could not socialize easily because of compulsory distance education.
- it has been found that students were generally satisfied with distance education in terms of saving time and money, but they mentioned problems such as the quality of online courses, technical problems, and lack of social interaction.

What this paper contributes:

- It aims to explore the perspectives of pre-service preschool teachers by addressing their metaphorical perceptions
- As a result while most of the pre-service teachers used negative metaphores to describe the compulsory distance education process due to the pandemic, fewer pre-service teachers used positive metaphores.

Implications for theory, practice and/or policy:

- It is recommended to increase intrinsic motivation of the stakeholders in order to prevent the loss of motivation of faculty members and students in order to increase the efficiency in the distance education process.
- Distance guidance and psychological support can be provided to pre-service teachers in order to prevent the isolation of the individuals.



Introduction

The Covid-19 virus outbreak, which emerged in 2019 and deeply affected the whole world and was called a pandemic, has also closely affected the education community. Affecting more than 1.5 billion students, the pandemic has caused a major disruption in education systems (Barrot et al., 2021). In order to control the spread of the virus, measures such as part-time or full-time curfews, flexible working hours at workplaces, working from home or rotating shifts have been taken worldwide. In educational institutions, practices such as interrupting face-to-face education and continuing education through distance education have been implemented (Doghonadze et al., 2020; Gupta & Goplani, 2020; Atilas et al. 2021). These events have forced education to respond quickly with the ignition of digital transformation in higher education. All educational institutions have created new teaching protocols, and prepared the staff and teaching resources, systems, and infrastructure by adopting the required technologies. In this process, especially in developing countries with limited infrastructure, the transition to distance education systems has been difficult while the developed countries have experienced a slightly smoother transition (Simbulan, 2020; Pham & Nguyen, 2020; Barrot et al., 2021). In Türkiye, with the announcement of the Turkish Higher Education Council (in Turkish abbreviated as YÖK) in March 2020, it was decided that universities would initially take a short-term school vacation and then continue education and training through distance education by preparing distance education systems (YÖK, 2020).

Literature

Distance education systems offered in a crisis or disaster situation, such as during a pandemic, differ significantly from well-planned distance education systems (Hodges et al., 2020). Distance education is a system that addresses specific learning cultures in a systematic and planned way with strong theoretical foundations (Rumble, 2019; Sezgin, 2021). The distance education used during the pandemic is called emergency or temporary distance education because it refers to the effort to continue education and training activities with the available facilities in times of crisis (Bond, 2020; Bozkurt & Sharma, 2020; Bergdahl & Nouri, 2020). While the main purpose of emergency distance education is to provide temporary access to education, the purpose of distance education is to provide students with educational content and interaction for a certain period of time (Hodges et al., 2020). In addition, distance education requires planning, designing, and preparing for teaching long before it starts, while emergency distance education requires an unplanned and rapid transition as an alternative delivery (Smith & Schlaack, 2021) and is a model implemented out of necessity (Taskaya, 2021). In distance education, courses can be delivered synchronously and asynchronously (Baytekin, 2011). While mutual interaction is possible in synchronous, asynchronous is a system that allows flexibility in accessing video lessons and resources, and there is no interaction (Taskaya, 2021).

Distance education has various advantages (Cavanaugh et al., 2009; Kebritchi et al., 2017) and disadvantages (Boelens et al., 2017; Rasheed et al., 2020) that it provides to education systems and learning environments. For example, being easily accessible from home for individuals, offering the opportunity for students to participate at any time, being economical, and allowing students to learn by both seeing and listening can be counted among its advantages (Franklin et al., 1996). However, it is noteworthy that social interaction is lacking in distance education despite all the opportunities it offers. Because, although distance education systems are developed and used effectively, it is very difficult to provide the interpersonal communication and socialization that can be provided in face-to-face education in distance education. In addition to all these, various problems such as personal time management planning, motivation for learning, difficulties in measurement and evaluation may arise in distance education (Cook, 2007). In this context, a study conducted by the Human Development Foundation (*in Turkish* İNGEV) that only 23% of the society reported that the distance education system alone was sufficient in education and only 39% responded that distance education systems were quite striking (İNGEV, 2021). On the other hand, the "digital divide" that emerges with the different degrees of participation of students who come from different cultural backgrounds, have different socioeconomic

levels, have inadequate access to technological devices at home, fast and reliable internet access and digital skills is a disadvantage that needs to be brought to the agenda clearly (Bikos et al., 2018; Baticulon et al., 2020; Tzifopoulos, 2020). In addition, mental health problems such as anxiety, stress and depression caused by the sudden change in the lifestyle of individuals during the pandemic process and the uncertainty of the future have also affected students' distance education experiences (Rajkumar, 2020; Rossi et al., 2020; Tandon, 2020; Xiong et al., 2020). Research shows that the quality of distance education significantly affects the perceptions towards distance education (Demirli, 2002), and these perceptions significantly affect the success and outcomes of learning processes (Zhang & Fulford, 1994; Offir et al., 2003). Mseleku (2020), investigated e-learning and teaching processes in the era of Covid-19 pandemic, revealed that both students and academics were not ready for the online learning experience in the pandemic period. Today, many of the impacts of pandemic-era distance education are still being understood and it is clear that it has resulted in major disruption (Crawford et al, 2020; Mseleku, 2020; Bryson & Andres, 2020). It is important to understand the experiences and perceptions of all stakeholders affected by this education system, including government officials, academic staff, parents, and students, so that solutions to these impacts can be developed and measures can be taken to improve quality in the event of a future emergency.

When the relevant literature is examined, it is seen that in the studies determining the opinions of university students regarding distance education processes during the pandemic period, the participants were found to be away from communication and interaction and could not socialize (Mountz, 2020; Altuntaş et al., 2020), they were uncomfortable with constantly looking at the screen (Mountz, 2020), but they were satisfied with the fact that distance education courses could be watched repeatedly (Duygun, 2020), they found distance education useful because it improved their technical skills (Altuntaş et al., 2020), they did not find distance education as effective as face-to-face education, but a considerable number of students considered distance education as an alternative solution method (Keskin et al., 2020). In the study of Barrot et al. (2021), it was revealed that the Covid-19 pandemic had a great impact on the mental health of university students and the quality of their learning experiences. In addition, regarding higher education students' perceptions of distance education, it was stated that the variables of gender, having a personal computer and having an internet connection did not create a significant difference in the perception of distance education, while the perception differs according to the department and class variables (Aksoy et al., 2021).

Another stakeholder affected by distance education is pre-service teachers who study at universities to educate children in formal education settings. Similarly, in the studies on the distance education experiences of pre-service teachers during the pandemic period, it was found that students were generally satisfied with distance education in terms of saving time and space and being a solution during the pandemic period (Güven & Uçar, 2021), but they experienced various problems such as not getting enough efficiency from the courses due to technical problems and lack of social interaction (Altun Ekiz, 2020; González-Calvo et al. , 2020) and preferred face-to-face education to distance education (Karatepe et al, 2020) was determined. Öztürk et al. (2021), on the other hand, found that a great majority of the participants used negative metaphors in their study to determine the metaphorical perceptions of pre-service teachers towards distance education. In addition, there are also findings in the studies that pre-service teachers feel inadequate because they cannot practice in the "teaching practice" course, which is especially necessary for their professional competencies during the pandemic process (Eti & Karaduman, 2020; Yıldız & Kalkan, 2022). Atkins and Danley (2020) emphasized the importance of preparing in advance for what kind of measures will be taken in emergency situations such as pandemic, based on the fact that practice practices based on teacher-student interaction are very important for pre-service teachers in teacher training programs. As a result of the study conducted by Göloğlu Demir and Çetin (2022) during the pandemic process, it was concluded that more than half (58%) of the metaphors put forward by pre-service teachers about the virtual classroom contained negative judgments (waste of time, inefficient, restriction, boring, limited communication), while one third (34%) were positive (information source, comfort, effectiveness). In the related study, positive and negative metaphors created by pre-service teachers did not show significant differences in terms of

gender and departments. On the other hand, Güler et al. (2022) concluded that pre-service teachers had difficulty in adopting distance education, male pre-service teachers were more interested and moderate in distance education, and pre-service mathematics teachers had more positive views than other departments.

Studies have been conducted to reveal the opinions of pre-service teachers from different departments about emergency distance education in the Covid-19 process. For example, Önal (2022) reported that pre-service teachers generally had a negative opinion as a result of his study on 242 pre-service teachers studying in the field of mathematics and science teaching. Looking at the studies conducted with pre-service teachers in the field of special education in this process, Bozkuş Genç (2022) conducted a study with 185 participants and found that the participants produced 137 positive and 142 negative metaphors. While the students thought that the resources offered for acquiring new knowledge in distance education were very diverse and comprehensive. They criticized the teaching process as artificial and non-interactive. In another study conducted in the field of special education, Terzioğlu and Yıkmiş (2022) found that the distance education received during the pandemic process was not effective compared to face-to-face education, students' interaction with their classmates and instructors was low in this process, and their absenteeism increased. On the other hand, in the study conducted by Dereli İman and Deli (2022), which examined the views of pre-service preschool teachers on the distance education process, it was concluded that pre-service preschool teachers generally had difficulties in the distance education process, especially they evaluated the distance delivery of applied courses negatively, but they provided economic benefits in this process. , Furthermore, it was found that pre-service preschool teachers experienced deficiencies in practice-based courses such as music education and teaching practice due to distance education during the pandemic (Akinci, 2021; Yılmaz et al., 2021; Yıldız & Kalkan, 2022).

Given the uncertainties about the future, it is vital to gain a detailed perspective on all students' learning experiences with distance education systems throughout the pandemic (Barrot et al., 2021). In this sense, the findings of studies that identify the views and perceptions of all stakeholders affected by the distance education system are still of great importance in terms of taking measures to change these perceptions. In order to take measures in this context, studies revealing the distance education experiences of pre-service teachers (Türkan et al., 2020; Bahadır, 2021; Altinpulluk, 201; Taskaya, 2021) should be taken into consideration. The focus of this study is on pre-service preschool teachers. Although studies have been conducted to determine the opinions or metaphorical perceptions of pre-service teachers from different departments to evaluate the distance education processes implemented during the pandemic process, it is seen that there is no study that reveals the views and metaphorical perceptions of pre-service preschool teachers towards distance education. Therefore, the aim of this study is to examine the views of pre-service preschool teachers who received distance education during the pandemic process towards distance education and to reveal their metaphorical perceptions about their experiences. In line with this purpose, answers to the following research questions were sought.

1. What are the opinions of pre-service preschool teachers about distance education during the pandemic process?
2. What are the metaphors produced by pre-service preschool teachers for the concept of distance education in the pandemic process?

Methodology

Research Model/Design

In this study, phenomenology design, one of the qualitative research models, was used. Phenomenology design is a kind of research in which we focus on phenomena that we are aware of but do not have an in-depth understanding of the phenomena that we encounter in various forms such as lived experiences,

events from the world, orientations, concepts, perceptions, and situations. Phenomenology focuses on describing the basic structure and elements of a lived experience (Yıldırım & Şimşek, 2016; Merriam, 2015). The purpose of using the phenomenological design in educational research is to reveal and make sense of experiences in the process of educational activities and to contribute to the development of the process (Saban & Ersoy, 2016). A metaphor, which means a word that is used in a sense other than its literal meaning as a result of relevance or analogy, helps to express ideas that can be conveyed more precisely using fewer words (Zheng & Song, 2010). In this study, the phenomenology design was preferred since it was aimed to determine the views and metaphorical perceptions of pre-service preschool teachers towards distance education in the Covid-19 pandemic process. Because metaphor analysis in the field of open and distance learning; metaphor analysis is more applicable than traditional observation and interview qualitative research methods due to its mass nature, metaphor analysis is more efficient than other qualitative research methods because the learner and the teacher are not in the same environment, and metaphor analysis is a more effective method in explaining new and complex topics (Güneş and Fırat, 2016), this study was designed as a phenomenology study and metaphor analysis was used in the process of collecting and interpreting the data in the study (Bozkus Genç, 2022). In addition, the phenomenology design was chosen because the effects of the COVID-19 pandemic as a phenomenon are being investigated in different disciplines all over the world and there is a need to examine new situations and different practices that emerged during the pandemic process educationally. The interview technique, which is basically preferred in phenomenology studies, was preferred and used in the form of semi-structured interviews in this study.

Data Collecting Tools

In the study, in order to examine the views and metaphorical perceptions of pre-service preschool teachers towards distance education in the Covid-19 pandemic process; "General Information Form", "Semi-structured Interview Form" and "Semi-structured Metaphor Perception Form" were used to determine the demographic characteristics of pre-service teachers.

General Information Form

There are questions about the gender and which year of pre-service preschool teachers were in.

Semi-structured Interview Form

In the study, an open-ended questionnaire form consisting of three open-ended questions was used to determine the views of pre-service preschool teachers about the distance education they experienced during the Covid-19 process. In order to obtain expert opinions about the questions prepared in the context of the review of the relevant literature and the purpose of the research, two experts, one of whom is an expert in the field of measurement and evaluation and the other in the field of preschool education, were presented. In line with the feedback from the experts, the questions were edited and finalized. Since universities were closed during the Covid-19 pandemic, the data collection tool was prepared through "Google Forms". In the introduction part of the form, information about the purpose of the research and confidentiality was given.

Semi-structured Metaphor Perception Form

In the study, a semi-structured question pattern was used to determine the metaphor perceptions of pre-service preschool teachers about the distance education they experienced during the Covid-19 process. "(The source of the problem) is like Because..." pattern; "...is like..." part is used to express the structure that gives information about the subject of the metaphor and evokes the structure that is connected with the source of the problem; "Because..." part is used to explain the reason or logical basis of the source of the problem (Atik, 2020). Since universities were closed during the Covid-19 pandemic process, the data collection tool was created by the researcher through "Google Forms". The form created was asked to a researcher who is an expert in qualitative research and her opinions were taken.

According to the opinion received, in order to determine the metaphorical perceptions and justifications of pre-service teachers towards the concept of distance education in the Covid-19 pandemic process, firstly, in the introduction part of the form, brief information was given about the voluntary participation in the research, the purpose of the research and what metaphors mean. Then, an example of how to fill in the metaphor form was given. In the next section, in order to obtain the demographic information of the participants, their gender, department and grade level were asked. Finally, the semi-structured question "Distance education during the Covid-19 Pandemic is like Because" and asked them to complete the semi-structured sentence.

Study Group

The population of the study consists of pre-service teachers studying in the Department of Early Childhood Education at Afyon Kocatepe University-Türkiye, Faculty of Education. The sample of the study was determined by using convenient sampling method, which is one of the random/non-random sampling methods. Convenient sampling method aims to reach the group that is closest, convenient and easily accessible in order to prevent factors such as loss of time and money and to reach the group of the size required for a research (Robson, 2015). When using this sampling, possible participants are asked whether they are suitable to participate in the study or a group of participants who are easy to participate in the study is created (Christensen, Johnson, & Turner, 2015). In particular, the study was conducted with pre-service teachers who were continuing distance education at Afyon Kocatepe University Faculty of Education, pre-school education in the 2020-2021 academic year, and who could be reached due to the ongoing effects of the pandemic and the closure of schools. After obtaining the approval of the ethics committee for this research, the researchers were the pre-service preschool teachers at different grade levels studying in the department of preschool education and studying in this department.

The study group of the research consists of 50 pre-service teachers for their views on distance education in the Covid-19 pandemic process, and 100 pre-service teachers for their metaphorical perceptions in the fall semester of the 2020-2021 academic year at Afyon Kocatepe University-Türkiye, Faculty of Education, Department of Early Childhood Education.

Demographic information of 50 pre-service teachers were as follows: 92% were female, 8% were male, 36% were in the 1st year, 20% were in the 2nd year, 18% were in the 3rd year, and 26% were in the 4th year. On the other hand, constituting the other data set, the demographic characteristics of 100 pre-service teachers were determined as 86% female, 14% male, 49% were freshmen, 26% were seniors, 14% were juniors, and 11% were sophomores.

Table 1. Demographic information of the study group whose opinions on distance education were taken

Variable	Option	f	%
Gender	Female	46	92
	Male	4	8
Year	1st	18	36
	2nd	10	20
	3rd	9	18
	4th	13	26

Table 2. Demographic information of the study group whose metaphorical perceptions about distance education were taken

Variable	Option	f	%
Gender	Female	86	86
	Male	14	14
Year	1st	49	49
	2nd	26	26
	3rd	14	14
	4th	11	11

Data Analysis

In the study, data triangulation was used to examine pre-service preschool teachers' views and metaphorical perceptions of distance education during the Covid-19 pandemic. Data triangulation is defined as collecting data from different groups, different environments or at different times (Patton, 2002; Grix, 2001). In this study, a semi-structured interview form and a metaphor perception form were applied to pre-service teachers studying at Afyon Kocatepe University Faculty of Education, Early Childhood Education undergraduate program.

In this direction, content analysis technique was used to analyze the views and metaphorical perceptions of pre-service preschool teachers towards distance education in the Covid-19 pandemic process. Content analysis is an analysis technique in which some words of a text are systematically summarized into smaller content categories by coding based on certain rules in order to determine human nature and behavior. In content analysis, the researcher makes inferences by determining the existence, meanings and relationships of words and concepts in the text (Büyüköztürk et al., 2012). In summary, the basic operations performed in content analysis are to systematically bring together the codes that are similar to each other from the codes generated from the text within the framework of certain theme and category concepts and to interpret the relationships between them by organizing them at a level that the reader can understand (Yıldırım & Şimşek, 2016). In interpretative phenomenological research, content analysis is mainly applied as one of the data reduction techniques to produce codes and categories (Margolis & Zunjarwad, 2018). In this type of content analysis, it is necessary to see beyond the data, in other words, to read between the lines while interpreting the available data containing the experiences of the participants (Baş & Akturan, 2017).

In order to determine the views and metaphorical perceptions of pre-service preschool teachers towards distance education in the Covid-19 pandemic process, the application was initiated after obtaining ethics committee approval from Afyon Kocatepe University Ethics Committee. In the evaluation of the data obtained through Google forms, content analysis was carried out in stages. First of all, the raw data collected voluntarily from pre-service preschool teachers via Google Forms were printed out. The collected data were analyzed in accordance with the stages of (a) sorting and numbering, (b) coding, (c) categorization, and (d) data interpretation (Creswell & Poth, 2016).

In the first stage, the opinions of 54 participants and the metaphor perceptions of 110 participants were read and the answers of 4 participants from the interview form and 10 participants from the metaphor perception form were eliminated because they did not respond appropriately to the purpose of the answers given. In the second stage, the interview forms of the remaining 50 participants and the metaphor perceptions of 100 participants were numbered as P1, P2, P3... from 1 to 50 and 100. In the third stage, the answers given by the participants separately for each question were categorized and coded. The coded data were grouped into categories and themes according to their similarities and relationships. To ensure the reliability of the study, the data were evaluated by two field experts for consistency. For confirmability, all raw data and their coding were digitally recorded. The categorization

efforts of the two authors were then compared. The themes and categories were reorganized. Miles and Huberman's (1994) formula for determining reliability based on consensus, "Reliability= Consensus / (Consensus + Disagreement) x 100" was applied on the reorganized categories and themes. In the part of the research aimed at determining opinions $(46 / (46 + 4) \times 100 = 92)$, the reliability value was 92%; in the part aimed at determining perceptions with metaphors $(96 / (96 + 4) \times 100 = 96)$, the reliability value was 96%. According to Miles and Huberman (1994), the condition for ensuring the qualitative reliability of the research is that the degree of agreement between the coders should be at least 80%. According to this condition, the reliability of the research was ensured. At the last stage, in the presentation of the findings of the research, the data were presented and interpreted by organizing the categories and themes in tables according to frequency values in a way that the reader can understand. Direct quotations from the participants' statements were included in the presentation of the findings.

Findings and Discussion

In this section, the findings including pre-service preschool teachers' views and metaphorical perceptions of distance education in the Covid-19 pandemic process are presented. First of all, the findings obtained from pre-service preschool teachers' views on distance education in the Covid-19 pandemic process are presented below in categories and codes. The thoughts of pre-service preschool teachers about distance education during the pandemic process are given in Table 1.

Table 1. Preschool Teacher Candidates' Thoughts on Distance Education During the Pandemic

Categories	Codes	f
Views on educational processes	Inefficient	23
	Lack of educational interaction	12
	Inadequate	3
	Efficient	3
	Declining academic achievement	2
	Inadequate in terms of applied courses	1
	Useless	1
	Adequate	1
	<i>Category Total</i>	46
Views on the pandemic process	The only remedy in the current situation	8
	The process is challenging	6
	Being the right decision in terms of health	5
	The process creates inequality of opportunity in education	5
	<i>Category Total</i>	24
Views on personal factors	Failure to take education at home seriously	4
	Problems with focusing	4
	Social deficiency	4
	Loss of motivation	1
	<i>Category Total</i>	13
Opinions on distance education system	Systemic failures	3
	Flexibility in terms of time	3
	Providing flexibility in terms of space	2
	Providing the advantage of watching the lessons again	2
	Providing comfort	2
	<i>Category Total</i>	12
Technical aspects	Internet access disruptions	6
	Lack of technological tools	3
	Lack of opportunity	2
	<i>Category Total</i>	11
TOTAL		96

When Table 1 is examined, it is seen that pre-service teachers' opinions on distance education during the pandemic process are discussed under 5 categories. It is seen that pre-service teachers mostly expressed opinions about the educational processes of distance education and in these opinions, they mostly stated that distance education was inefficient and that they experienced a lack of social interaction because they could not interact one-on-one with the instructor. These findings give an idea that the reason why the study group pre-service teachers could not get the efficiency of face-to-face education may be due to insufficient one-to-one interaction with the instructors. These thoughts were followed by the thoughts that the pre-service teachers saw distance education as inadequate, that it caused a decrease in their academic achievement and that, on the contrary, they found the education productive. Some examples of pre-service teachers' thoughts about the educational processes of distance education are as follows:

P5: *"I think it has affected the training very badly, everything we learn now is so-called learning, never really the efficiency of face-to-face training. The reason I think like this is that I cannot feel that I am learning."*

P50: *"It is not productive, how productive can it be in front of the screen? There is no benefit without eye contact and active participation. "*

P32: *"It is not efficient. I realized how valuable face-to-face education is. I think it is more efficient face-to-face. When we don't understand something, we ask immediately. In distance education, they talk about another subject until they write the question."*

P21: *"Since I cannot be in close contact with my professors in distance education, I have difficulty in understanding and grasping the lessons. I cannot get efficiency and I think that my academic success decreases."*

P29: *"I think it is insufficient and we are forced by teachers."*

In the opinions of pre-service teachers in terms of their views on the pandemic process, it is seen that they mostly see distance education as the only solution in the pandemic process. This is followed by the opinions that although the pandemic process is challenging, it is the only solution to protect health in this process and that the closure of educational institutions and the transition to distance education due to this pandemic process leads to inequality of opportunity for students. Some examples of pre-service teachers' opinions on the pandemic process affecting distance education are as follows:

P2: *"We had to go through the online education process. Even though we had no other choice, I didn't like this kind of education. I want to go back to school as soon as possible, I don't think we could get full efficiency from online education."*

P11: *"Distance education is actually the most logical way in the pandemic process, but as a country, there is an infrastructural deficiency and it is not as effective as face-to-face education, this has been scientifically proven."*

P12: *"Distance education is the right decision. In order not to spread Covid -19."*

P35: *"It is a difficult process. We are trying to get used to distance education because it is not as efficient as formal education."*

When Table 1 is examined, pre-service teachers' thoughts on education during the pandemic process are followed by opinions that include personal factors such as not being able to take distance education seriously at home, not being able to focus on education in front of the screen or feeling incomplete because they miss their social environment. In another category, it is seen that they talked about the advantages and disadvantages of the systems used to provide distance education. While they consider

the problems experienced in the system as a disadvantage in distance education, especially in exams, there are opinions that they see the time and spatial flexibility provided by the system and the flexibility of re-watching as an advantage. In the last category, it is seen that there are opinions about the lack of tools such as internet, computer, telephone, which are the technical structures necessary for the use of distance education, and the lack of access to these tools. Some examples of opinions on personal factors, distance education system and technical aspects are as follows:

P6: *"Distance education is inefficient, how much learning can be done in 1 hour, there is no access, on the one hand, sometimes families do not take us as students, it is as if we do not have a lesson there, no matter how we hold it, distance education is not full education, exams are anxiety-provoking, anxiety that it can go clear at any moment, etc."*

P14: *"It is unproductive because I live in the village and I participate on my phone, I often have internet problems or there are problems in the system. Half of the lesson is wasted while I try to attend the lesson."*

P19: *"The distance education process is not productive for both educators and students. The reasons that make me think so are that the distance education system is inadequate, the course hours are not enough, and we have internet and computer problems."*

P23: *"I don't think it is useful because I can't focus on the phone or computer, and I can't take the lessons seriously."*

P38: *"It can be better. I think so because sometimes there are problems caused by the system in the live lesson while studying distance education and there are problems during the exam hours during the exam week."*

P42: *"It became difficult to focus on the lessons during the distance education process. Because we could not talk to our lecturers in detail about the subject. The fact that the course documents and live lectures were installed in the distance education system made it easier for us to prepare for the exams. Because we could access the necessary information completely."*

The categories and codes created from the opinions of pre-service teachers about how they felt about distance education during the Covid-19 pandemic process are given in Table 2.

Table 2. Pre-service Preschool Teachers' Views on How They Feel During the Pandemic Process

Categories	Codes	f
Negative feelings	Inadequate	11
	Bad	10
	Longing for sociality	5
	Not feeling like a student	5
	Sad	3
	Tired	3
	Bored	2
	Disgruntled	1
	Worn out	1
	Desire to return to normal	1
	Unexcited	1
	Stressed	1
	Alone	1
	Unlucky	1
	Hopeless	1
		<i>Category Total</i>
Positive emotions	Good	6

	Happy	2
	Hopeful	2
	Enjoyable	1
	Safe	1
	<i>Category Total</i>	12
Neutral sensations	Neutral	1
	Feel empty	1
	Used to	1
	<i>Category Total</i>	3
	TOTAL	62

As can be seen in Table 2, how pre-service teachers feel about the distance education process is categorized under 3 different categories. It is seen that the category with the highest number of opinions is the opinions that they feel negatively. These opinions are followed by positive feelings and neutral feelings of pre-service teachers. In the negative feelings category, pre-service teachers mostly reported that they felt inadequate in terms of education and that they felt bad. These negative feelings are followed by opinions such as the feeling of longing for social friendships in the face-to-face education period, not feeling like a student, feeling unhappy, tired, and bored with the process. Some examples of the opinions of pre-service teachers about their feelings about the distance education process and the reasons for their feelings are as follows:

P21: *"I don't think that I feel equipped with knowledge or that it contributes to my department. As a future educator candidate, I feel uninformed and incompletely trained right now. Because the lessons don't fully merge in my head. I cannot understand them face to face. I cannot get efficiency when I work from slides."*

P37: *"I feel that my education is incomplete. University is a place where not only education but also social environment difference, self-control, self-awareness, cultural understanding are gained, and I feel very, very unlucky to be away from such issues."*

P5: *"I feel bad in general, the only thing I feel good about is that I can improve my grades, otherwise the education is insufficient, we cannot ask questions properly, so I feel bad"*

P27: *"I feel lonely, really lonely. I miss going to school with my friends and studying together. When my friends are in different cities, we have a hard time doing our group assignments. It always falls on one person. As you know, remote communication is not very effective."*

P35: *"It is bad. I miss my school and my environment. The problems in the lessons make me sad."*

P40: *"I feel like I never went to university, sometimes I remind myself that I went to university, even the people around me don't believe that I am almost a university student..."*

In Table 1, in the category of positive feelings about how pre-service teachers feel about the distance education process, they mostly stated that they feel good, happy, and hopeful. In the neutral feelings category, it is seen that there are few opinions that they feel neutral, empty, and accustomed. Some examples of pre-service teachers' opinions within the scope of negative and neutral feelings are as follows:

P38: *"I feel good because no matter how many problems we have, the lecturers find solutions to the problems we face and do their best to make sure we are not in trouble."*

P45: "I scan a lot of sources; I do extensive research. Since I am always at home, I can also spend time studying for the KPSS (a proficiency exam in Türkiye to be appointed as a public-school teacher), so I feel good."

P47: "I feel very good, I think it is very productive. There is more time for everything. I think it is more efficient to take all the other courses, except for the applied courses, remotely. There is no loss of time going back and forth, everything is at our fingertips with a single click, the only thing left is to motivate yourself, read and study."

P10: "I am always hopeful even though I am a little unhappy because I know that these days will pass."

P11: "I started to find time for classes and more things, which makes me happy."

P15: "I feel neutral. I am in favor of adapting quickly to events and facts."

Table 3 presents the categories and codes for the opinions of pre-service teachers on how they would conduct the courses if they were faculty members in the distance education process, their suggestions and expectations on this issue.

Table 3. Preservice Preschool Teachers' Opinions and Suggestions on How They Expect Distance Education to be Continued

Categories	Codes	f
Opinions and suggestions for the course process	Providing students with the opportunity to actively participate in the lesson	15
	Sharing course materials with students	4
	Creating a discussion environment	3
	Live tutoring during forum hours	3
	Using visual elements in the lesson	3
	Recognizing flexibility in the lesson	2
	More explanatory lecturing	2
	Conducting live extracurricular educational activities	2
	More lively and fluent lecturing	1
	Repetition until students understand	1
	Making the lesson fun with activities	1
	Breaks in lessons	1
	Making lectures with video and audio from zoom	1
	<i>Category Total</i>	39
Opinions and suggestions for the measurement and evaluation process	Giving research assignments	4
	Allowing flexibility in assignments	3
	Assigning homework	2
	Making exams in the form of projects or homework	1
	Test making that makes cheating unlikely	1
	Assigning thinking-based homework	1
	Less homework	1
	Not giving group assignments	1
	<i>Category Total</i>	14
No suggestion	The best that can be done in the current circumstances is already being done	10
	No opinion	4
	<i>Category Total</i>	14
	Providing extra-curricular trainings	2

Extracurricular opinions and suggestions	Extracurricular meeting planning from Zoom	1
	Getting to know the student	1
	<i>Category Total</i>	<i>4</i>
TOTAL		71

The pre-service teachers made suggestions by expressing their opinions on how they would conduct the courses if they were faculty members in the distance education process. When Table 3 is examined, it is seen that these opinions and suggestions are gathered under 4 categories: course process, measurement, and evaluation process, those who have no suggestions and suggestions other than course curricula. It is seen that the category with the highest number of opinions and suggestions is the opinions and suggestions regarding the course process. It is noteworthy that the opinions in this category are mostly about providing students with the opportunity to actively participate in the course. Looking at Table 1, it is seen that the opinions of the students about the lack of social interaction with the instructor in the lesson and the presence of these suggestions indicate that one of the most common needs of the pre-service teachers in the study group in this process is the need for active interaction with the instructor. Some of the expectations and suggestions that follow the active participation of students in the course process are sharing the course materials used in the course with the students, increasing the effect of the course by creating a discussion environment in the classroom, making live lessons during forum hours, and making the course more attractive by including more visual elements in the course. If we look back at Table 1 and Table 2, we can say that the fact that the students see the lessons as inefficient and feel themselves inadequate in this process shows that they reveal their expectations from the lessons with their suggestions because the lesson process does not satisfy them. Some examples of pre-service teachers' expectations and suggestions about the course process are as follows:

P5: *"I would like to give research assignments and create a discussion platform that everyone can participate in during live class hours instead of sitting in front of the camera and explaining, because we turn down the sound of the PC and continue our daily activities, and I think there are very few people who listen carefully to the lesson"*

P27: *"I would allow everyone to turn on the camera and microphone. While I was presenting, I would want them to talk and ask questions as they do when they are in the same class, and I would want us to spend time in communication, even if our time is limited. It is not productive when only the teacher lectures, we get bored..."*

P46: *"During the live lesson, I would have wanted my students to connect at least by voice and share information about the lesson so that effective learning environments would have been created."*

P41: *"If I were a lecturer, I would abolish the forums on the distance education system and only have live lectures instead, but I would always give students active voice."*

P3: *"I would try to share the materials I use during the course with my students, but unfortunately I don't have a different idea for distance education."*

P27: *"I would include more visual elements; I would do things to make students focus on the lesson."*

When we look at the opinions and suggestions of pre-service teachers regarding exams and assignments in measurement and evaluation, it is seen that the most common suggestion is that the assignments should be research-based assignments. Some pre-service teachers, on the other hand, stated that students should not be forced to do homework, considering the students who do not have

the opportunity in their views on allowing flexibility in assignments. On the contrary, the fact that some of the pre-service teachers also wanted various homework assignments reveals the contradiction in the opinions of the pre-service teachers. Some examples of the opinions regarding the suggestions regarding exams and homework are as follows:

P36: *"I would give a little less homework. I mean, I would prefer them to give any research topic instead of constantly writing activities."*

P37: *"I would manage a process by providing all the facilities so that exams, homework, projects would not force children in this period. In live lessons, I would cover topics that would lead students to research with their professions in the course curriculum. I would ensure that the lessons are taught interactively, and I would try to create discussion environments where students would actively participate."*

P47: *"I would do live lectures in the form of short assignments to reinforce especially difficult and complex topics for the lesson."*

P49: *"I would definitely make measurement and evaluation not in the form of exams, but in the form of short project assignments. In this way, learning is permanent, and feedback is provided in a healthy way."*

When we look at Table 3, we see that pre-service teachers do not have any suggestions in Category 3. Those who do not have any suggestions are mostly those who do not have any suggestions because they think that the best that can be done in the current situation has already been done, but there are also those who do not develop suggestions because they do not have an opinion on this issue. It is seen that some pre-service teachers developed suggestions for educational activities other than the educational activities required by the curriculum. Some examples of the opinions of those who had no suggestions and those who suggested extra-curricular educational activities are as follows:

P46: *"I find our teachers very successful, I think they teach very well, and they are very sincere, even though we never see them, and we only watch them on the screen."*

P25: *"If I were a faculty member, I would realize a process like the current one, because our professors do their best."*

P23: *"I have no idea; distance education is not practiced."*

P10: *"I would follow a student-oriented way as much as I could and I would teach them that education is not only live lessons and I would not necessarily follow the curriculum, but I would also prepare them for the future, and I would teach them that not everything is a lesson by speaking at live conferences."*

P40: *"If I were a lecturer, I would remove the forums, I would only do live lectures instead, but I would always give students active voice, I would try to get to know my student before the lesson, my communication with my student would be at the maximum level, I would allow my student to share their ideas more, and I would support my student in this distance education process, I would care about their problems, I would not see the small mistakes they make, and I would try to empathize in this process."*

In this section, the findings including pre-service preschool teachers' metaphorical perceptions of distance education during the Covid-19 pandemic process are presented. Then, the distribution of these metaphors categorized by content analysis and sample expressions of the participants are presented.

Table 4. Pre-service Teachers' Metaphors for the Concept of Distance Education in the Pandemic Process

<i>Metaphor order</i>	<i>Metaphor</i>	<i>f</i>	<i>Metaphor order</i>	<i>Metaphor</i>	<i>f</i>
1	Medicine	7	44	Sky	1
2	Robot	3	45	Watching a TV series or movie in a different language without subtitles	1
3	Water	2	46	A wasted semester	1
4	Book	2	47	Buying a book, you won't read to ease your conscience and forgetting about it	1
5	Vaccine	2	48	Ghost	1
6	Mum	2	49	A house without light	1
7	Communication through smoke	2	50	Mirage	1
8	Death	2	51	Writing on water	1
9	The symbol of comfort	1	52	Traffic light	1
10	Tale	1	53	Unsalted soup	1
11	Food and water	1	54	An unlit environment	1
12	Hababam class	1	55	Garden without flowers	1
13	Opening the window	1	56	Clock hanging on the wall	1
14	Breath	1	57	Unrealistic fantasy	1
15	Savior	1	58	Separated from its mother	1
16	Watch a video lecture	1	59	Kite	1
17	Teacher	1	60	Food without salt	1
18	Compass	1	61	Food without tomato paste	1
19	A savior angel	1	62	Tasteless cake	1
20	Support	1	63	Closed box	1
21	Rain	1	64	Toy	1
22	Friend	1	65	Foggy weather	1
23	Technological equipment	1	66	Tree that does not bear fruit	1
24	The only thing that can be done	1	67	Three-dimensional glasses	1
25	Keeping a pet	1	68	Night light	1
26	Low-light lamp	1	69	Dead end street	1
27	Water in the desert	1	70	A wild goose chase	1
28	Lifeline	1	71	A book with blank pages	1
29	A balcony with short railings	1	72	Glass half full of water	1
30	Pre-industrialization manpower	1	73	Jigsaw Puzzle	1
31	90's brand car	1	74	Sowing a seed in unproductive soil and waiting for it to grow and flourish	1
32	Misty glass	1	75	Cloth closet	1
33	Light	1	76	Disease	1
34	Alternative	1	77	Friend in a different city	1
35	A field that needs constant watering and maintenance	1	78	Gum	1
36	The road without a guide	1	79	Ordeal	1
37	A stone thrown into an empty well	1	80	Torture	1
38	Leaking pipe	1	81	Night	1
39	Inefficiency	1	82	Baked beans without rice	1
40	Leafless tree	1	83	Continuing a half-finished book	1
41	A human being who suddenly picks up a grain of wheat just as an ant is about to shoulder it and carry it away	1	84	Drinking soup with a fork	1
42	A virtual world	1	85	Order of disorder	1
43	Minimum wage	1	86	Diving under the sea	1
				TOTAL	286

When Table 4 is examined; it is seen that pre-service teachers created a total of 86 types of metaphors from the opinions of 100 people about distance education implemented during the Covid-19 pandemic process. Among these metaphors, it is seen that the "medicine" metaphor is repeated 7 times. Since face-to-face education was interrupted during the pandemic process, we can say that it is quite meaningful that pre-service teachers perceive distance education as a medicine in terms of meeting a need in this process. Following this, the "robot" metaphor was repeated 3 times. The reason why the robot metaphor was repeated 3 times can be said to be due to the fact that it is a technology-based education process without social interaction as a result of the distance education process. The metaphors "water", "book", "vaccine", "candle", "communication with smoke" and "death" were mentioned 2 times each, while the other 78 metaphors were mentioned once each.

The metaphors produced by pre-service teachers were divided into themes and categories according to their similarities. Table 5 below shows the distribution of the metaphors developed according to themes and categories.

Table 5. Distribution of the Types of Metaphors Developed by Prospective Teachers for Distance Education According to Themes and Categories

<i>Themes</i>	<i>Categories</i>	<i>Number of Metaphors f</i>
Positive	1. In terms of meeting a mandatory need	27
	2. To be useful when effort is made	9
	3. In terms of efficiency	2
	4. In terms of hope	2
	5. In terms of flexibility	2
	<i>Total positive contact</i>	42
Negative	6. In terms of social deficit	20
	7. In terms of ineffectiveness	10
	8. In terms of being inefficient	9
	9. In terms of being inadequate	9
	10. In terms of being challenging	8
	11. In terms of uncertainty	2
	<i>Total negative contact</i>	58
	GENERAL TOTAL	100

When Table 5 is examined, the metaphors produced by pre-service teachers for distance education and those with similar characteristics according to their explanations were grouped under certain categories. The opinions of 100 pre-service teachers were categorized under 11 categories in total. Then, the categories were grouped under two separate themes according to their characteristics: those who have a positive (42) perspective on distance education and those who have a negative (58) perspective on distance education.

The metaphors expressed with a positive perspective with the approach of "better than nothing" in terms of meeting the need for education created by the closure of schools during the difficult pandemic period were gathered under the category of meeting the need arising from this necessity. Apart from that, various positive perspectives on distance education were developed, including positive benefit requiring effort, positive approach as an efficient information system, positive perspective in terms of promising hope, and positive perspective in terms of providing flexibility in some respects.

). It is noteworthy that the most recurring category among these categories is "In terms of social deficiency". It is seen that 20 pre-service teachers stated that they approached distance education with a negative perspective because distance education is lacking in the context of social interaction and social relations in face-to-face education. It can be said that the pre-service teachers drew attention to the importance of social interaction in education and the need for socialization during the pandemic process. When we look at the other categories under the negative theme; the fact that pre-service

teachers see distance education as an ineffective, inefficient, challenging process and a structure that makes them feel uncertainty has revealed remarkable categories.

Table 6. Positive Theme Categories and Metaphors

Categories	Metaphors
"Necessarily in terms of meeting the need" (27)	Water, Food and water, Medicine, Breath, Savior, Compass, Savior angel, Supporting, Rain, Friend, Vaccine, the only thing that can be done, Candle, Low-light lamp, Water in the desert, Life preserver, 90's brand car, Light, Alternative
"To be useful when effort is made" (9)	Fairy tale, Book, Technological device, Keeping pets, A balcony with short railings, Pre-industrialization manpower, Fogged glass, Communication through smoke, A field that needs constant watering and maintenance
"In terms of efficiency" (2)	Book, Teacher
"In terms of promise" (2)	Hababam class, Opening the windows
"In terms of allowing flexibility" (2)	The epitome of comfort, watching a lecture video

Sample excerpts of the metaphors that pre-service teachers stated about distance education "*in terms of meeting a compulsory need*".

Water is our basic need. In order to improve ourselves, we have to continue distance education (P6)

Medicine protects us from the pandemic and does not deprive us of education (P51)

Thanks to distance education, students are not separated from school, and they have the opportunity to continue their student life in some way. However, I believe that it would be much more efficient if equal opportunities could be provided to everyone (P33)

A saving angel; if we did not have the chance of distance education when we were already facing an extraordinarily difficult situation, everything could have been worse (P63)

A candle does not illuminate us completely. It also does not leave us in the dark (P10)

90's brand car; it is uncomfortable, but it does the job (P81)

Life ring: it should be used in emergencies (P49)

Water in the desert; better than nothing (P48)

Lamp that gives little light; not enough but still gives light (P41)

When Table 6 and sample quotations are examined; it is seen that there are metaphors such as *Water, Food, Medicine, Friend, Light*, where pre-service teachers liken distance education to a basic need during the Covid-19 pandemic process. The metaphor of *medicine* (7), which has the highest frequency, is mostly under this category. The metaphors seen as a savior are; *Savior, Compass, Savior angel, Lifeline, Water in the desert*. There are also metaphors in which it is seen as an object or a structure that works even though it does not provide very good opportunities and is seen as a solution. These are metaphors such as *candle, lamp that gives little light, the only thing to do, alternative, 90's brand car*. The metaphors in which distance education is likened to an object used in emergencies are; *Savior, Water in the desert, Life preserver*.

Sample excerpts of the metaphors that pre-service teachers stated about distance education "*in terms of being useful when effort is made*";

Books; not all people know how to read books effectively. We are happy if we can open a page and make some use of the book, but there are those who cannot do this. Doing this does not benefit the book, but it does benefit us. Distance education also benefits us if we sit in front of a computer, tablet or phone and listen to the lesson well and use every opportunity to the fullest. In this process, we need to continue our education in a quality way, just like a good reader (P26)

Keeping a pet because if you do not meet its interests and needs, you will gradually lose it. If you do not show the necessary dedication in education, you will move away from knowledge and education (P23)

It is a balcony with short railings; if the student knows his/her responsibility and works in a disciplined way, he/she will not fall from this balcony. But if he is not conscious, if he does not know what to do and how to do it, he cannot get off that balcony in a healthy way (P60)

Foggy glass; unless you wipe the glass with your hand, you cannot see the picture behind it. Unless you make an effort, you will fall behind (P83)

It is a field that needs to be constantly watered and cared for; when you don't pay attention, you don't get any crop or yield (P78)

As seen in Table 6 and sample quotations, the metaphors of *Fairy Tale*, *Book*, *Technological tool*, *Feeding a pet*, *A balcony with short bars*, *Pre-industrialization manpower*, *Misty glass*, *Communication with smoke*, *A field that needs to be constantly watered and maintained*, which are included in the distance education category in terms of requiring effort, indicate that distance education requires effort, effort, interest and is efficient when these conditions are met.

Sample excerpts of the metaphors that pre-service teachers stated about distance education "*in terms of its efficiency*";

A book gives us information and helps us learn new things (P15)

The teacher; while educating us during the pandemic process, on the other hand, he conveys how we should behave in difficult situations, prepares us for life and the future (P52)

As can be seen in Table 6 and the quotations, two of the participant pre-service teachers had a completely positive approach to distance education and included statements indicating that it is an efficient education system. It is also noteworthy that *book* and *teacher* metaphors were used in this category as the main sources of information in education.

Sample excerpts of the metaphors that pre-service teachers stated about distance education "*in terms of promising*";

Hababam class; school is not a place surrounded by walls on all four sides with a roof on top, school is everywhere (P18)

Opening a window is the window that teachers open to their students (P27)

As seen in Table 6 and the examples, pre-service teachers used a line from the movie *Hababam class* (a movie including uneducated boarding students share a very close bond) and the metaphor of *opening a window* to indicate that distance education promises hope to students during the Covid-19 pandemic. In this sense, it can be said that distance education is seen as a hope in the pandemic process.

Sample excerpts of the metaphors that pre-service teachers stated about distance education "*in terms of flexibility*";

A symbol of convenience; we can watch the lecture replays whenever we want (P13)

Watching lecture videos; missing topics can be completed by watching them over and over again (P46)

As seen in Table 6 and sample excerpts, two of the pre-service teachers emphasized the ability to re-watch the course content in the distance education process and developed positive metaphors about the flexibility provided by this as the *symbol of comfort* and *watching the course video*.

Table 7. Negative Theme Categories and Metaphors

Categories	Metaphors
"In terms of social deficit" (20)	Leafless tree, An ant is about to shoulder a grain of wheat and suddenly picks it up, Virtual world, Robot, House without lights, Traffic light, Soup without salt, Garden without flowers, Clock hanging on the wall, Unrealistic dream, Separated baby, Kite, Food without salt, Closed box, Foggy weather, Three-dimensional glasses, Friend in another city, Beans without rice
"In terms of not being effective" (10)	Stone thrown into an empty well, Wasted period, Buying a book you won't read to ease your conscience and forgetting it aside, Ghost, Mirage, Writing on water, Tasteless cake, Toy, A book with empty pages, Illness
"In terms of inefficiency" (9)	Leaking pipe, Inefficiency, Watching a TV series or movie in a different language without subtitles, No light, Food without tomato paste, Tree that does not bear fruit, Water, Sowing a seed in an infertile soil and waiting for the seed to grow and flourish, Eating soup with a fork
"In terms of inadequacy" (9)	minimum wage, night light, dead end, dead end street, wasted rowing, glass half full of water, jigsaw puzzle, cloth closet, order of disorder, diving under the sea
"In terms of being challenging" (8)	Death, Sky, Gum, Suffering, Torture, Communication with smoke, Continuing an interrupted book
"In terms of uncertainty" (2)	The unguided way, Night

Sample excerpts of the metaphors that pre-service teachers stated about distance education *"in terms of social deficiency"*;

Tree without leaves; if we think of teachers as trees, we students were their leaves (P9)

It is a virtual world; students cannot be fully active; they only listen to the teacher. Their own ideas, their own thoughts are never taken into account (P14)

A house without light; you do everything in it, you fulfill your every need, but it still doesn't satisfy you, you still don't feel like you've been fully fulfilled, it is the light that enters into it that makes a house a home, in a school, it is the teacher and students in it that make a school a school... In this pandemic period, our school has become our room, a room without any light, a room without windows, an artificial classroom environment in which there is no real environment, artificial voices are raised, artificial conversations take place, so I liken distance education to a room without light, when we will be in our real schools, then this room will get light (P31)

Traffic light; continues to be useful but interaction is close to zero (P40)

Soup without salt; there is no salt, face-to-face education. Education has become tasteless (P42)

A garden without flowers; students are the roses of that school. But the school was left without students (P44)

The offspring separated from its mother; it had to be separated from its mother when it should have been with her (P50)

Friend in a different city; we only have our voice and image, we are not ourselves (P86)

If we look at Table 7 and sample expressions; it is seen that there are metaphors such as *a tree without leaves, a house without light, soup without salt, garden without flowers, food without salt, foggy weather, three-dimensional glasses, dried beans without rice*, where distance education is compared to an object or situation that is missing in some aspect, and with these metaphors, it is seen that distance education is tried to explain that distance education is lacking in the context of sociability in face-to-face education. Similarly, it is seen that technological metaphors such as *a virtual world, robot, traffic light, clock hanging on the wall, three-dimensional glasses were used* to indicate the lack of concrete social relations due to the technological abstractness of distance education. It is also seen that there are those who developed metaphors such as *an offspring separated from its mother and a friend in a different city* by likening the lack of a social relationship to direct social relationships. The fact that the pre-service teachers stated the metaphors and justifications that they felt the most social deficiency in terms of distance education negatively revealed remarkable findings about how important social relations are in education.

Sample excerpts of the metaphors that pre-service teachers stated about distance education *"in terms of not being effective"*;

It is a wasted semester; we cannot follow the lessons hour by hour, we may not find the opportunities to follow them (P24)

Buying a book you are not going to read to ease your conscience and forgetting it aside; everyone is involved in distance education to say that we did not interrupt education and they realize that it is not beneficial (P25)

Writing on water; we open the class and have breakfast for nothing, after all, we are in attendance, and in the midterm, every student looks online, unfortunately, stay at home for the return to school Türkiye (P36)

Tasteless cake; because nothing is understood (P57)

A book with blank pages, zero efficiency (P73)

In Table 7 and sample metaphor excerpts, it is seen that there are metaphors related to the fact that pre-service teachers see distance education practices in the pandemic process as an ineffective effort that does not work. They tried to explain this with metaphors such as *a wasted period, a book with empty pages, a stone thrown into an empty well, and writing on water*. In addition, there are metaphors such as *ghosts and mirages* that they liken to non-existent phenomena in order to express that distance education is not effective.

Sample excerpts of the metaphors that pre-service teachers stated about distance education *"in terms of being inefficient"*;

Inefficiency; not all students are able to attend classes under equal conditions, in addition, due to the lack of infrastructure, the learning factor between students and teachers has also lagged behind the face-to-face learning factor, I think the university should be opened as soon as possible (P7)

Watching a TV series or movie in a different language without subtitles; we listen, we hear the sound but we don't understand it, sometimes we can't focus. I don't think people will like a TV series or movie that we don't understand, it would be very difficult to like it. Similarly, when we have trouble focusing on lessons, we don't understand that lesson or we have difficulty understanding it (P22)

An environment without light; as we cannot see anything in an environment without light, we do not receive an efficient education in distance education (P43)

A tree that does not bear fruit; just like a tree that has difficulty in bearing fruit, it resembles a rooted trunk that has been cut off from life and now has difficulty in bearing fruit (P68)

Sowing a seed in an unproductive soil and expecting it to grow and flourish and trying to obtain yield as a result of education that is imparted only through rote memorization, is nothing but a futile endeavor.

Table 7 and sample quotations show that pre-service teachers expressed distance education in metaphors such as *a pipe that leaks water, inefficiency, watching a TV series or movie in a different language without subtitles, an environment without light, a tree that does not bear fruit, planting a seed in an infertile soil and waiting for the seed to grow and flourish, and drinking soup with a fork.*

Sample excerpts of the metaphors that pre-service teachers stated about distance education *"in terms of being inadequate";*

Minimum wage; we cannot make a living (P19)

Night light; it illuminates us a little (P70)

It is a dead end; not all students have equal conditions in the country. Even most of the initiatives to equalize the conditions, such as campaigns, etc., could not reach all students. Before the pandemic, even though there was not equality, at least every student could go to school (P71)

A glass half full of water; no matter how much you try to think of the full part, the empty part will always continue to exist (P75)

As seen in Table 7 and sample excerpts, it is seen that pre-service teachers produced various metaphors such as *minimum wage, night light, dead end street, glass half full of water, incomplete puzzle, diving under the sea to express that distance education is inadequate or limited.* With the metaphors of *order of disorder* and *cloth closet*, it is seen that they express that distance education is inadequate while it is an order that is used.

Sample excerpts of the metaphors that pre-service teachers stated about distance education *"in terms of being challenging";*

Ordeal; I did too much homework and there was no internet at home (P88)

Torture; There are many people who do not have internet, who have internet but cannot pay attention to the lesson at home. It is torture for both the teacher and the student (P92)

Death feels like an ordeal when you are struggling with psychological problems in the midst of so many difficulties.

As can be seen, pre-service teachers developed various metaphors such as *Death, Ordeal, Torture, Chewing gum, Smoke, Communication, Sky, Continuing an unfinished book* to express the difficulties of the distance education process. While some of them were the difficulties brought by the Covid-19 pandemic process in general, some of them were the difficulties brought by technological tools, and some of them drew attention to the difficulties of the distance education process.

Sample excerpts of the metaphors that pre-service teachers stated about distance education *"in terms of making them feel uncertainty";*

The road without a guide; we don't know where we are going.

At night, as students, we cannot see in the dark.

When we look at the two metaphors in the distance education category in terms of making us feel uncertainty, it was seen that the pre-service teachers drew attention to an unknown uncertainty with the metaphors of the *unguided road* and the *night*.

In addition to the closures in order to prevent the rapid spread of Covid-19 pandemic, the opinions, and metaphorical perceptions of pre-service preschool teachers about the process of distance education were examined and various findings were reached. In the light of the data collected, it was determined that pre-service teachers complained that distance education was inefficient and that they complained about the lack of interaction because they could not interact with the instructor face-to-face. Accordingly, pre-service teachers drew attention to the connection between the inefficiency in the distance education process and the lack of interaction. In addition to these thoughts, pre-service teachers also stated that distance education caused a decrease in their academic achievement. Yılmaz and Güven (2015) in their study investigating pre-service teachers' metaphorical perceptions of distance education, examined pre-service teachers' perceptions of distance education under categories such as need-oriented, non-interactive, diversity, easy access, and inefficient. In this context, as a result of the study, it was seen that students perceived distance education as requiring individual effort, inefficient, liberating, providing diversity, isolating, non-interactive, virtual, easily accessible, fun, and enabling. In another study, participants stated that they could not establish healthy communication and socialize in the communication theme (Atik, 2020). According to Atik (2020), in the affective theme, while some participants were satisfied with distance education, some were not satisfied with this process. In the educational theme, participants' perceptions of distance education were included under the categories of technology use in distance education, individual differences, independent learning, efficiency and supportive. In the accessibility theme, the technological problems experienced in distance education, the flexibility of distance education and the perceptions about the equality of opportunity it provides were included. These categories are consistent with the categories obtained in this study. On the other hand, Öztürk et al. (2021), who examined the metaphorical perceptions of pre-service teachers about distance education in the distance education process, found that the perception of pre-service teachers about distance education was mostly negative. In addition, Elkatmış and Tanık (2022) stated that 70% of the metaphors produced as a result of their study on university students were negative expressions. On the other hand, in the studies of Fedyninch et al. (2015) and Fidan (2017), students who expressed positive views were more than those who expressed negative views.

While the pre-service teachers expressed that distance education is the most logical solution in this process, they also stated that this process leads to inequalities of opportunity for students. There are also studies in the literature that express these advantages of distance education (Atik, 2020; Umurhan, 2014; Karataş, 2008). In addition, pre-service teachers explained that they could not take distance education seriously at home, could not focus on education in front of the screen, or missed their social environment on campus. In addition, according to Quiamco et al. (2022), in their study on elementary preservice teachers in Philippines, the drawbacks in utilizing Zoom during the pandemic included: connectivity status, complexity in features, and online health struggles. At this point, Doğan and Koçak (2020) reported that distance education has positive features in terms of removing the space limit, being economical, continuing education without interruption, creating equality of opportunity, ease in accessing information, gaining self-control, and providing the opportunity to manage time better.

The pre-service preschool teachers, who also mentioned the advantages and disadvantages of the distance education process, saw technical problems and online exams as a disadvantage, while they mentioned spatial flexibility and the opportunity to watch the lessons again as advantages. Similarly, it is seen that metaphors emphasizing technology were identified in the studies in which perceptions towards distance education were tried to be determined in the literature (Atik, 2020; Çivril et al., 2018;

Erten, 2020; Fidan, 2017; Gündüz, 2013; Mutlu, 2014; Tuncay & Özçınar, 2009; Yılmaz & Güven, 2015). Looking at the studies on student satisfaction in distance education, it is seen that time independence, space independence and flexibility in the context of individual differences are among the factors affecting satisfaction (Arbaugh, 2000; Çivril et al., 2018; Sahin & Shelley, 2008; Sun et al., 2008). In Kan and Fidan's (2016) study, it is seen that students' views on distance education are positive thanks to time and space independence. The pre-service teachers who experienced problems in terms of cell phone, computer and tablet facilities and internet quota during the distance education process also expressed these problems in the last category. At this point, although pre-service teachers complained about the costs of technological devices and internet subscription, it is thought that accommodation and food costs would be higher in face-to-face education process. As a matter of fact, Lenar et al. (2014) also stated in their study that distance education saves adults from transportation costs and other expenses. In another study, some of the participants stated that distance education will help individuals who cannot continue formal education due to various reasons (such as physical disability, geographical disability) and children of low-income families to reduce costs such as transportation and accommodation (Atik, 2020).

In the light of the findings obtained from this study, the answers given to the question of how pre-service teachers felt themselves in the distance education process were grouped under 3 different categories and it was determined that the category with the highest number of opinions was negative feelings relative to positive and neutral feelings. Accordingly, pre-service teachers felt themselves inadequate in terms of education and missed their friendships in the face-to-face education process. The statements that they could not feel like students and that they were unhappy, tired, and bored in the process reinforce this situation. Çivril et al. (2018) pointed out a similar finding in their study and stated that the interaction category contains the most negative statements and that university students need social interaction in the education process. In the category of positive feelings about how pre-service teachers feel about the distance education process, the participants stated that they felt good, happy, and hopeful. In addition, in the study for undergraduate students who are pre-service Turkish teachers, students stated that they could not express themselves sufficiently in this process and that they had an education period far from socialization (Karakuş et al., 2020). In neutral feelings, it is seen that there are few opinions that they feel neutral, empty and accustomed. Different studies indicate that students who are in physically different places from each other may feel lonely (Besser & Donahue, 1996; Hill et al., 2009; Mountz, 2020; Sung & Mayer, 2012; Vonderwell, 2003). Accordingly, in some studies, it has been determined that the feeling of loneliness caused by lack of communication is an important factor in students' decisions to continue distance education (Angelino et al., 2007; Kanuka & Jugdev, 2006).

In response to the question of how they would behave if they were faculty members in the distance education process, the pre-service teachers stated that they would mostly give students the opportunity to actively participate in the teaching process, share lecture notes with students, increase the impact of the course by creating a discussion environment in the classroom, conduct live lectures during forum hours and include more visual elements in the course. As another finding of this study, pre-service teachers' perceiving the lessons as inefficient, feeling themselves inadequate and not being satisfied with the process are consistent with the answers they gave in this category. One of the factors affecting the quality and efficiency of distance education is the faculty members involved in distance education (Nielsen, 1997). One of the prerequisites for an educational institution to be adequate and effective in distance education is the willingness of instructors and students to carry out distance education activities (Canpolat & Canpolat, 2020). The fact that instructors are inadequate and inexperienced in using distance education technologies and therefore have a negative view of distance education reflects negatively on students (Nenko et al., 2020; Genç, 2020). In addition, instructors have problems in preparing and presenting sufficient and effective teaching materials for courses in the distance education process (Genç & Gümrükçüoğlu, 2020). The limited course materials that can be used in the distance education process also negatively affect the learning process of students. Under the category of assessment and evaluation, pre-service teachers stated that if they were in the place of the instructors, they would give research-based assignments, allow flexibility in assignments, and would not force

students due to the difficulty of the process. According to another research result, it was determined that the evaluation dimension of distance education processes was not fair (Demirbilek, 2021). While most students aim for the highest grade that can be obtained with the least workload and some students may cheat in online exams or assignments, other students may think that they are not fully rewarded for their efforts. If we remember that there was a curfew for young people under the age of 20 as a precaution during the pandemic, it became impossible to obtain materials for homework and projects, to benefit from libraries or to participate in group work. In this context, the pre-service teachers' request for flexibility in assignment submissions may have been justified in this way.

Pre-service teachers stated 86 different metaphors for distance education applied during the Covid-19 pandemic process and it was determined that the drug metaphor was repeated the most. In this context, it can be said that pre-service teachers see distance education as a problem-solving element in the challenging process. It is meaningful that pre-service teachers, who are separated from their friends, social environments, and teachers, and who continue their education mostly confined at home, see distance education as a medicine that cures problems. Following this metaphor, the other metaphor that is repeated 3 times is robot. It can be said that this is because it is an education process based solely on technology without social interaction. In addition to these, it was determined that "water", "book", "vaccine", "candle", "communication with smoke" and "death" metaphors were expressed by 2 different pre-service teachers, while the other 78 metaphors were expressed once each. When these metaphors and those with similar characteristics according to their explanations were classified according to positive (42) and negative (58) perspectives, the metaphors under the positive theme were grouped under 5 categories: "In terms of meeting the need as a necessity (27)", "In terms of being useful when effort is made (9)", "In terms of being productive (2)", "In terms of promising (2)" and "In terms of providing flexibility (2)". Considering that the metaphors stated by pre-service teachers are mostly in the category of "meeting a compulsory need", it can be argued that distance education is "better than nothing" in terms of meeting the need for education during the challenging pandemic process with closures. In the categories that can be evaluated with the negative perspective label, it is seen that the category of "Lack of social interaction (20)" stands out the most, followed by "Ineffective (10)", "Inefficient (9)", "Inadequate (9)", "Challenging (8)" and "Uncertainty (2)". At this point, the element that pre-service teachers metaphorically see as a negativity in the distance education process is the lack of social interaction in distance education. It can be said that pre-service teachers draw attention to the importance of social interaction in education and the need for socialization during the pandemic process. In addition, pre-service teachers who expressed the negativities in the distance education process with metaphors drew attention mostly to the ineffectiveness of distance education, the inefficiency, inefficiency and inefficiency of the process, and the feeling of uncertainty. According to the results obtained by content analysis carried out by Bozkuş Genç (2022), the preservice teachers produced 137 positive and 142 negative metaphors. Among the positive metaphors, the themes of "usability," "flexibility," "student participation," and "suitability" were obtained, while the themes of "teaching process," "interaction," "usability," "student status," and "assessment and evaluation" were obtained among the negative metaphors. The existence of other studies showing that distance education is a more inefficient process than face-to-face education confirms one of the most important findings of this study (Barış, 2015; Öztürk et al., 2021; Yalman & Kutluca, 2013; Yılmaz & Güven, 2015). At this point, Çivril et al. (2018) reported that in their study examining university students' perceptions of distance education, only 17 of the 302 metaphors were negative, and these negative expressions were mostly (59%) in the "Interaction" category. Similarly, in Thompson and Ku (2005), Fidan (2017), Özyaydın Özkara (2016), Kan and Fidan's (2016) studies, it was determined that students had positive and negative opinions. It is seen that lack of communication has an important place among the reasons for negative opinions (Kan & Fidan, 2016; Fidan, 2017). Although distance education inherently offers students a high level of accessibility and flexibility compared to face-to-face education, the distance between faculty members and students causes a lack of interaction, which is seen as an important barrier in distance education (Lee, 2017). In another study, Atik (2020) stated that the participants who expressed negative opinions could not communicate and socialize well, especially when they needed

help. At this point, Erten (2020) reported that unsociality, lack of interaction, and limited time were among the metaphors in his research aiming to determine university students' perceptions of virtual classrooms.

Conclusion and Suggestions

As a result, while most of the pre-service teachers used negative metaphors to describe the compulsory distance education process due to the pandemic, fewer pre-service teachers used positive metaphors. The fact that the distance education process carried out due to Covid-19 is structured as an urgent system, problems related to infrastructure, the fact that young people have to stay indoors due to the pandemic and their general well-being is badly affected makes it easier to understand the results of the research. As long as distance education continues for various reasons, the distance education system should be well structured by taking into account the difficult situations that people are in and taking into account the mutual satisfaction of both students and faculty members.

Considering the results of the findings obtained in the research, in the context of current distance education practices and recommendations for future practices, it is firstly recommended to increase the efficiency of education by including practices that increase intrinsic motivation in order to prevent the loss of motivation of faculty members and students in order to increase the efficiency in the distance education process. At this point, virtual classroom applications should be improved to eliminate the negative perceptions of students and faculty members about communication and interaction. By conducting studies on infrastructure and technological material problems that cause inequality of opportunity in the distance education process, the perceptions of pre-service teachers in this process can be changed positively. Different trainings on distance education can be organized to increase the digital competencies of both students and faculty members. Distance guidance and psychological support can be provided to students in order to prevent the isolation of the individuals in the distance education process and therefore the deterioration of mental health.

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