

Article Effects of Emergency Distance Education on Teacher Training Process in Turkey: Instructors' Opinions

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Abstract: Emerging in 2019 and then spreading throughout the world, COVID-19 has led to the application of emergency action plans in almost all areas of life. In this process, the Turkish education system also made a transition to distance education in schools of all types and levels. The main purpose of this study is to determine the views of the instructors regarding the prospective teacher education practices implemented via distance education in Turkey during the pandemic period. This study was carried out using a case study method. The data collected through an open-ended questionnaire were analyzed using content analysis. In conclusion, it was found that universities in Turkey do not have a functional distance education policy for the urgent distance education process, and a centralized policy is followed in most universities for distance education. Also, it was concluded that limited interaction, lack of equipment, and infrastructure problems negatively affect the distance education process. Moreover, it was found that distance education applications are not convenient for teacher education, and support is needed in technical, human, and managerial issues for teacher education through distance education to be successful.

Keywords: distance education; teacher education; COVID-19



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1. Introduction

1.1. Distance Education and Teacher Education

Distance education is not a new education form. Its emergence dates back about 300 years [1]. It is known that distance education, which has passed through various stages and reached its present state, has a long history [2,3]. Its development and progress in the last 300 years is parallel to the innovations in communication technology [4]. Its origins date back to the first correspondence-based course conducted by the postal service in Boston, USA, in the 18th century [5]. The historical development of distance education is examined over five periods [6]: (1) before the Correspondence Education Period, when teachers and learners came together and face-to-face teaching was carried out in small and large groups; (2) the period of correspondence education systems, in which printed materials such as books, newspapers, guidebooks or other printed media were distributed by the postal system; (3) the one-way communication period in which radio and television broadcasts were used for teaching purposes; (4) the two-way communicational audio and interactive period that provided interaction between teachers and students thanks to developing technologies; and (5) the period realized through telecommunication technologies such as radio, television, video cassette, computer, satellite, and fiber optics as a result of developments in the communication and electronics industry.

As it can be understood from the periods above, the historical development process of distance education also represents how distance education technologies have developed over the years [7]. Although there has been an explosion in distance education recently, especially due to the new technologies available [8], it has had certain progress in the prepandemic period. With the proclamation of COVID-19 as a pandemic all over the world, it

has suddenly become a popular concept in education and has become the focus of attention of many researchers. During the COVID-19 pandemic, teachers were suddenly forced to change their teaching methods, use distance learning apps, and innovate in online teaching methods [9]. In addition, universities are increasingly investing in digital technologies that allow them to deliver educational content more sustainably [10].

Distance education has long been an important form of professional development for pre-service and in-service teachers in developing and developed countries [11]. Distance education has been used for many years to solve the quality and quantity problems in the teacher training process [12,13]. It has been used in diverse social and cultural contexts for many years in different education systems, plays an important role in teacher education [12,14–16], and is increasingly used [12]. While distance education becomes widespread in the 21st century, it is emphasized that teacher training programs should become more active in this area [17]. Therefore, it is important to learn how and why distance education takes place in teacher education and to investigate its consequences in the current emergency distance education [18].

Distance education is suitable not only for initial teacher education but also for continuing professional development [12,16]. It offers opportunities in teacher education such as providing effective, efficient, and fair education and maximizing the access of various disadvantaged students to such services [19]. Distance education as a kind of complementary education is seen as an alternative to solving problems related to access, equity, cost, and quality in higher education [16]. Distance education, implemented by governments to expand the supply of teachers, increase their motivation, support their work, and develop their skills [20], is being adopted worldwide as a solution to many problems such as cost and access to teacher education [21,22]. In addition, to increase the academic and pedagogical knowledge and skills of teachers [20,23], ensure efficient use of resources by decreasing the cost of training a qualified teacher, facilitate the training of more educated teachers in a shorter time, and improve the relationship between theory and classroom practices are among the various advantages of distance teacher education [24]. Moreover, it provides many benefits to teachers in remote and rural areas, such as providing vocational training opportunities, enabling them to learn about many topics such as curriculum innovations and new teaching methodologies and practices [25]. Distance education is used to serve purposes such as facilitating teachers' access to resources; providing education and training more extensively and at shorter time intervals than traditional forms; increasing the flow of information, to better integrate theory with practice; and disseminating information on topics such as curriculum changes and new teaching approaches widely and rapidly [12]. In addition, it can be listed among the contributions of distance education to ensure that teachers and prospective teachers (students) are knowledgeable about distance education technology and are inclined to employ it as a presentation pedagogy in their classrooms [26].

1.2. COVID-19 Pandemic and Emergency Distance Education

Rapid and unexpected changes in society can sometimes have unplanned consequences [27] and have a notable effect on critical functions and services [28]. The COVID-19 epidemic has troubled many areas all over the world such as social, economic, political, and educational. Due to COVID-19, the teaching–learning process in almost all education systems has been transferred from face-to-face education to online education [5,29,30]. Recent figures show that nationwide school closures are being encouraged in 191 countries worldwide because of the COVID-19 crisis [31]. The COVID-19 pandemic has forced institutions and communities to seek a modern approach to work while avoiding health issues and life-threatening conditions. In this process, many countries tried to ensure the continuity of education by producing alternatives instead of interrupting education and were forced to change from traditional education approaches to distance education applications. This rapid and great transformation in education has also significantly affected higher education, reversed higher education routines, encouraged the transition to online learning [32], and left teacher education institutions faced with several technical and pedagogical challenges. Education faculties and instructors had to react rapidly to an unforeseen and mandatory transition from traditional to distance education and create suitable learning environments for prospective teachers [18,33]. This situation has contributed to the reshaping of the vision and mission of teacher education and educational institutions [34].

1.3. Turkey's Transition during the Pandemic Period to Distance Education

During the COVID-19 pandemic, distance education has grown into a preferred approach worldwide. With the detection of the first COVID-19 case in Turkey on 10 March 2020, as in many countries around the world, institutional measures were introduced throughout Turkey, and on 16 March 2020, by the Ministry of National Education, traditional education was suspended in primary, secondary, and higher education institutions. On 23 March 2020, distance education was started in order not to interrupt the education process, and the education information network (EBA) infrastructure, which serves as Turkey's official digital learning platform in primary and secondary schools, was strengthened and the distance education process started. In addition, cooperation has been made with the Turkish Radio and Television Corporation (TRT) to enable distance education to be carried out all over Turkey and for students to benefit from distance education. Through this channel, all primary, secondary, and high schools started the distance education process [35]. At the higher education level, at the beginning of the epidemic, the education process was suspended for three weeks, and then distance education applications started to be carried out through distance education programs (Zoom, Google Meet, Adobe Connect, etc.). In the face of the COVID-19 epidemic, the Council of Higher Education [36] announced that traditional education in higher education would be suspended as of 12 March 2020, and starting from 23 March 2020, it was decided that in the 2019–2020 Spring term, courses in all universities would be conducted synchronously (simultaneously) or asynchronously (asynchronously) using the distance education method. In this context, in the guide [37] published to ensure unity in practice, it was recommended that blended learning practices and enriched content development for the new normal process should be included, distance education should be carried out by certain standards, teaching qualifications of instructors should be developed, organizational structure in distance education should be developed, and extracurricular online activities should be planned. In addition, although it is stated that practical training such as "teaching practice" should be given "face-to-face" as much as possible and supported with the digital environment in the 2020–2021 academic year, due to the unsuitable conditions, it was recommended that the studies on "teaching practice" be completed with activities such as lectures and homework. Even though Turkey and other countries have much experience in distance education practices, distance education in the COVID-19 period was a process that completely replaced formal education without full preparation [38]. All over the world, where schools and higher education institutions closed their campuses and suddenly switched to online teaching and learning, prospective teachers and instructors tried to cope individually and institutionally with the quick changes led to by COVID-19 [39]. Teachers had to transform their education methods overnight into a form of education that was far from the traditional classroom system. They tried to implement their teaching practices depending on the teaching materials they developed for remote working [40].

During the pandemic, because of practical and theoretical problems that emerged in teacher education, teacher education institutions reconsidered their mission and strategic vision. The transition to distance education necessitated the transition from traditional teaching methods to new pedagogical strategies in teacher education. Many instructors have had to create alternative learning opportunities in the time of the pandemic. In [41], it was stated that many instructors during the COVID-19 pandemic faced various difficulties such as creating content for online applications, understanding online pedagogy, and trying different pedagogical strategies to implement synchronous and asynchronous teaching during the COVID-19 period and that they found themselves unprepared for these challenges.

After the pandemic, changes have occurred in the roles of educational institutions and educators. Leaders of teacher education programs have sought to respond to institutional infrastructure shutdowns [42]. In this process, institutions that have experienced instructors in distance education and can manage digital resources well have overcome the difficulties in the pandemic process more easily.

The impacts of the worldwide transition to distance education are still unknown and require in-depth study [43]. COVID-19 appears to be disrupting teaching and learning, research, and university services worldwide, although its precise effects on higher education functions have yet to be fully studied [44]. Remarkably, the studies on distance teacher education practices conducted in various countries of the world during the pandemic are increasing daily. Although studies aiming to reveal the reactions of instructors towards the transition process from traditional teaching to online teaching are progressing rapidly, more studies are needed to reveal different aspects of this issue [18]. In a review of the literature, it was found that some studies aim to find out the opinions and problems of teachers about their online teaching experiences in the COVID-19 pandemic [28,40,45–50], and some studies aim to reveal the experiences and problems of prospective teachers [39,51–56], instructors [39,56–63], and administrators of teacher training institutions regarding online teaching practice [42]. In addition, there are theoretical studies revealing the impacts of COVID-19 on teacher education [43,64-69]. Regarding teacher education, studies were conducted on educational strategies and innovation experiences [70], in addition to revealing how institutions, teachers, instructors, and other stakeholders are adjusting to the new situation created by the COVID-19 pandemic [64,71]. When the studies conducted to evaluate the effect of distance education were examined, various studies [30,62,65,72–74] aiming to reveal the opinions of the instructors working at universities on the effect of distance education have been encountered.

When the literature review was carried out to determine the views of the instructors on distance education in the COVID-19 pandemic, it was seen that some studies are focused on the experiences of instructors during distance education [75], and the views of instructors on the advantages and disadvantages of distance education [76]. In addition, some studies share the views of instructors on teacher training in the COVID-19 pandemic [77], while instructors' knowledge, beliefs, and practices of lecturers about distance education [78], and the needs of instructors in the emergency distance education process [79] have also been encountered. Simamora et al. [63] aimed to reveal lecturers' perspectives on e-learning based on practices, challenges, and expectations during the COVID-19 pandemic. In their study, Ozok and Kancınar [30] aimed to reveal the difficulties in the planning and implementation of education during the COVID-19 pandemic. In these studies, the most common problems experienced by instructors in the emergency distance education process are communication interaction, absenteeism, technical problems [76–78], measurement and evaluation [62], and lack of motivation [74]. In addition, in the study conducted by Kırbaş [77], it was revealed that applied courses should be taught face-to-face and theoretical courses should be taught through distance education.

Based on the literature review, it is noted that there are many studies on teacher education in distance education, but there is not much research on the effect of distance teacher education at the time of the pandemic. On the other hand, studies aiming to indicate the effects of direct distance education practices on the prospective teacher education process depending on the views of the instructors are quite limited. Also, it was stated in [55] that there is a lack of research on online teaching practices during the global pandemic, although there is an increasing interest in how education through distance education is applied.

Being a good teacher requires professional learning environments that encourage not only practice but also advanced theoretical knowledge [80]. Practical experience, in other words, teaching practice, is one of the most important components of teacher education [81,82]. But today, teachers and instructors are experiencing an unknown period with respect to their professional lives and work [66]. COVID-19 has heavily influenced the traditional educational system [21]. As a result of the COVID-19 pandemic, the transition

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from face-to-face classrooms to emergency distance learning has created a major challenge for all students and teachers [82]. Teacher education institutions need to take some precautions to reduce this negative effect. For this, it is important to share the experiences and knowledge of instructors. In this context, the perspectives of the instructors need to be examined to carry out the distance education process in higher education effectively and efficiently [83]. However as mentioned above, the literature review reveals that the studies on the subject are limited. The research literature already published shows that COVID-19 calls for a reconsideration of teacher education practices [42]. In the changing educational environment, more and more studies are needed to increase the quality of teacher education and to contribute to theoretical and applied knowledge [33]. According to the literature review, not much research has been performed to investigate the efficacy of the distance teacher education application given in the time of COVID-19 from the perspective of the instructors. Understanding the practices and experiences of the instructors during the pandemic is of great importance for the successful management of the adaptation of universities to online education in the next period.

Investigating the instructors' experiences with distance education will make a notable contribution to eliminating the deficiencies of the system, developing sustainable programs, making arrangements for student needs, and examining the distance education and teaching practice process from a different perspective. In this context, it is thought that this study can shed light on the laws and regulations to be developed regarding distance teacher education. Determining the instructors' opinions regarding the teacher training carried out during the pandemic will help guide the measures used for similar disaster situations. In this sense, this study is notable in terms of the current situation, effectiveness, and propositions for more effective implementation of the teaching practice carried out in crises such as pandemics. In addition, the results of this work are significant in terms of presenting implications for the practitioners of teacher education programs conducted via distance education. In this respect, it is considered that the data obtained from this study will contribute to the planning and execution of distance education courses in teacher training departments.

The main aim of this research is to reveal the perceptions of the instructors regarding the distance education strategies and practices developed for the prospective teacher education process and the impacts of distance education on teacher education in Turkey during the COVID-19 epidemic. For this aim, answers were sought to the following questions:

- 1. What are the perceptions of the instructors regarding the distance education strategies and practices in teacher education during the pandemic period?
- 2. What are the views of the instructors on the effects of distance education applied during the pandemic period on teacher education?
- 3. What are the views of the instructors regarding the elements necessary for the success of distance teacher training programs?

2. Materials and Methods

This study intends to indicate the experiences and views of the instructors regarding the impacts of distance education studies conducted during the pandemic on teacher education. In this study, the case study, one of the qualitative research designs, was used. Qualitative research in which events and situations are interpreted and evaluated in their natural environment [84] is a holistic research approach [85]. In case studies, variables related to the situation are examined on how they affect the situation or how they are affected by the situation [86]. The case study approach is a useful and appropriate research design to reveal the complexity of a phenomenon in a given context [87]. The main purpose of this research is to determine the views of the instructors regarding the distance teacher education practices implemented during the pandemic period; therefore, a qualitative case study approach is most appropriate for this research.

2.1. Participants

In total, 15 instructors working in education faculties of 10 universities across Turkey participated in this research. The main source for teacher training is education faculties in Turkey. According to the 2022–2023 academic year data in Turkey, there are a total of 201 universities, 127 of which are state universities and 74 are foundation universities (https://istatistik.yok.gov.tr/, accessed on 2 September 2023). Of these universities, 97 have education faculties. Since teacher training programs in Turkey are prepared by the Council of Higher Education, a common program is followed in all universities. This research has tried to obtain opinions from 15 lecturers working in 10 different universities in seven regions of Turkey through easily accessible case sampling. Typical case sampling and convenience sampling methods were preferred in selecting the participants. Typical case sampling is a sampling method used to explore the effects of a particular application or program [88]. In this research, this sample was preferred to explore the instructors' views about the effect of emergency distance education on teacher education. The criteria for the determination of the research participants were based on the criteria that the instructors should have taught at least 10 h a week during the distance education process, they should be conducting courses in different teaching programs, and should be advising in teaching practice courses. Within the framework of these criteria, the study group consists of 15 instructors, who are determined using the convenience sampling method, working in the education faculties of different universities to bring practicality to the research. After the opinions of 15 lecturers were taken during the data collection process, researchers determined that they reached sufficient information for the research questions. The 15 participants were deemed sufficient as the sample provided sufficient information. As a matter of fact, Morgan and Morgan [89] explain the ideal sample size for qualitative research with the repetition cycle that occurs when the information reaches saturation. Similarly, Onwuegbuzie and Collins [90] stated that the data collection phase should be stopped, and the sample size should be fixed at this stage when data like previous data started to appear. The participants' characteristics are presented in Table 1.

Table 1. Participants' background characteristics.

Gender	Age	Years of Teaching	Department	Previous Distance learn- ing/Teaching Experience	Status of Receiving Education about Distance Education
Male	56	32	Elementary education	Yes	Yes
Female	34	10	Education management	-	-
Male	43	17	Elementary education	-	-
Male	35	9	Mathematics education	-	Yes
Female	39	15	Education management	-	Yes
Female	39	14	Mathematics education	-	-
Male	42	20	Science education	-	-
Female	37	13	Educational sciences	Yes	Yes
Male	36	12	Elementary education	-	-
Female	42	17	Social science education	-	-
Female	35	11	Education management	-	-
Female	44	21	Elementary education	-	-
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			lable 1. Cont.			
Instructors	Gender	Age	Years of Teaching	Department	Previous Distance learn- ing/Teaching Experience	Status of Receiving Education about Distance Education
М	Female	40	18	Turkish education	-	-
Ν	Male	39	15	Elementary education	-	-
0	Male	37	12	Mathematics education	-	-

Table 1. Cont.

2.2. Data Collection Tools

An open-ended questionnaire form consisting of two parts and 14 questions was prepared to obtain the data. The first section of the questionnaire form includes 5 questions that are intended to determine the demographic information of the participants. There are 9 questions in the second part of the form that aim to determine the policies implemented by the universities of the participants in the distance education process, the suitability of the physical and technical infrastructure of the education faculties for distance education, the state of achieving the goals in the distance education process, the measures taken for the continuation of distance education, the effects of distance education on teacher education and teaching practice, and the necessary elements for the success of distance teacher education programs. After the questionnaire form was prepared, it was presented to gauge the opinion of two field experts (one has 17 and the other 21 years of professional experience in teacher education and distance education) to measure the language and content validity. After the evaluations were received from the experts, two questions (questions 6 and 7) were extracted from the second part of the questionnaire form, and the forms were finalized and made ready for application. The questions in the draft questionnaire form are presented in the Appendix A.

2.3. Data Collection

Research data were collected between 1 December 2022, and 1 March 2023. Before the data were collected, the instructors who would participate in the research were determined. Before the research, assurance was given that the participants' information would be kept confidential, and an informed consent form was signed. Afterwards, the open-ended questionnaire form was sent to instructors electronically and their views on distance education were collected in written form.

2.4. Analysis of Data

The data were analyzed using the content analysis technique. The content analysis technique aims to present the collected data in a way that the reader can understand within the framework of certain concepts and themes [86]. In the analysis of the data, firstly, the answers given by the participants to each question were examined, and similar expressions in the answers of different participants to the same question were combined and coded. The obtained data were manually coded by the researchers. Then, the coded data were combined, common aspects were determined, and themes were created. In the last phase, the codes and themes that emerged were explained and the findings were interpreted.

2.5. Validity and Reliability

The validity and reliability of qualitative studies are met by internal (credibility) and external (transferability) validity, and internal (consistency) and external (verifiable) reliability criteria [86,91]. In qualitative research, internal validity is related to the significance and reliability of the findings. On the other hand, external validity is about transferability or relevance of the findings to other situations [92]. To ensure the internal validity of this

study, data collection and analysis processes are explained in detail. The analysis of the data was controlled by another researcher other than the authors. The external validity was ensured by interpreting the findings obtained from the study in conjunction with the previous study results and revealing the similarities and differences. In addition, it was ensured that the research findings were presented in an understandable way as themes, sub-themes, and codes. Thus, it is possible for other researchers to examine the same subject and compare the results of the research. To provide internal reliability, direct quotations of the participants were included in the interpretation of the data. In addition, during the analysis, codes and themes related to the data were created by both authors separately, and then the percentages of agreement between these codes and themes were calculated. According to [92], the percentage of agreement should be 70% or more. The agreement percentage of this study was calculated as 0.91. To ensure the external reliability of the research, the views of the participants were taken in writing without any intervention. To provide the confidentiality of the participants, each participant was given a code name. Also, to ensure validity and reliability, direct quotations were made from the participants' views, and the data were presented in the findings section without adding any comments. For the presentation of direct quotations, firstly the answers given by the instructors in Turkish were translated into English and then checked by an English language expert. Direct quotations are presented in English. External validity was ensured by explaining the research model, participants, data collection tool, and data analysis in detail in the Methods section of the study.

2.6. Ethical Considerations

The ethics committee evaluation report numbered 2023/246 was received from Necmettin Erbakan University Social and Human Sciences Ethics Committee to conduct the research. In addition, it was stated to the participants that the data obtained from the research would be used for this research purpose and their identity information would be kept strictly confidential. An informed consent form is used to inform the participant about the purpose and procedures of the research, voluntary participation, the precautions used to protect the confidentiality, the risks, and the benefits of the research [69]. In this study, it was ensured that the instructors participating in the study signed the informed consent form.

2.7. Limitations

- This study is limited to ten universities in Turkey; therefore, attention should be taken to generalizing the results to the teacher training programs of other universities in Turkey or internationally.
- 2. The sample includes only the answers of the instructors in the teacher training programs of ten universities, the answers do not represent the answers of all the instructors in the teacher education programs.
- 3. Since the research data were collected through an open-ended questionnaire, the results of the research are limited to the opinions of the participants retrieved from the open-ended questionnaire.

3. Results

3.1. Instructors' Opinions on Distance Education Policies of Education Faculties

First, instructors were asked to evaluate the distance education policies of their faculties in this research. While evaluating the distance education policies of their faculties, instructors emphasized "centralized" and "formal" policies. In Table 2, themes and codes created based on the opinions of instructors on the distance education policies of their faculties are shown.

	Concepts		
	Common to all faculties/departments (f = 12)		
Theme 1: Centralized	XX% of courses are given via distance education ($f = 7$)		
Policies	Being flexible (f = 4)		
	Focus on functional, seamless, and uninterrupted education (f = 2)		
	Being based on the policies and infrastructure of other universities $(f = 4)$		
	Duration (time) focus (f = 4)		
Theme 2: Formal	Eclectic (based on fixes as issues arise) $(f = 3)$		
Policies	Temporary solution/palliative/saving-the-day-oriented (f = 9)		
	Non-interactive/passive/asynchronous (f = 7)		

Table 2. Distance education policies of education faculties.

As seen in Table 2, instructors emphasized that "centralized" policies were applied while evaluating the distance education policies of their faculties. They also drew attention to the adoption of formal policies rather than functionality. Most instructors stated that their universities follow a centralist policy and carry out distance education through joint programs for all faculties and departments. It has been ensured that a certain percentage of the courses are given through distance education in universities; these are focused on functional, seamless, and uninterrupted education. In addition, most of the universities have adopted the policies of other universities that successfully implement distance education and have implemented distance education applications based on the infrastructure of these universities.

Expressing that the distance education policies of their faculties are the same as all other faculties and departments, X expressed his opinion:

The education policy of our university and faculty is centralized, and practices are common for each unit or faculty. I think there should be different policies in education faculty even on a departmental basis, however, the distance education policies and practices of the education faculty and those of the engineering faculty are the same.

Y, who emphasized the formal aspect while evaluating the distance education policies, said,

The main criterion in the distance education process is the lecturer's teaching time. If the video you have taken is less than 30 min, you will receive a warning, this time does not differ according to the course, only the Teaching Practice course is out of this scope.

Similarly, instructor B, while evaluating the policy of their university regarding distance education, stated that a policy focused on temporary solutions was followed by saying,

Our university saved the day in the early days of the distance education that was forced during the pandemic period, frankly, we only uploaded documents at that time. Of course, after some editing was done, we conducted the lessons through online lessons. But it was not helpful, absenteeism and lack of interest in the course were intense. I think our university was also interested in whether the courses were held, thinking that this was a temporary situation.

When the views of the lecturers are examined, it is seen that the distance education policies of the education faculties are shaped within the framework of central policies and the formal aspect comes to the fore in policies and practices. In other words, quality remained in the background of policies.

3.2. Evaluation of Physical/Technical Infrastructure of Universities Relating to Distance Education

The second sub-problem of the research is, "What are the views of instructors in terms of the suitability of physical and technical infrastructures of education faculties for distance education?". While evaluating the physical and technical infrastructure of their faculties, instructors emphasized the resources and limitations.

When the physical/technical infrastructures of education faculties are evaluated in terms of their suitability for the distance education process, as one can see in Table 3, there are two themes: resources and limitations. While some of the instructors stated that the programs they use in distance education at their universities are functional and that they can successfully implement measurement and evaluation, some of the instructors stated that they have difficulties in the asynchronous system and that there is no equipment and physical hardware support.

 Table 3. Evaluation of physical/technical infrastructure of universities/faculties relating to distance education.

	Concepts	
Theme 1. Resources	Program functionality (programs such as teams) (f = 3)	
meme 1. Resources	System suitable for material sharing (f = 4)	
	To be able to make healthy assessments and evaluation $(f = 2)$	
	Disadvantages of the asynchronous system ($f = 8$)	
Theme 2: Limitations	Inadequate video upload system (f = 6)	
	Lack of support of equipment/physical hardware (instructors taught with their computers) (f = 13)	

Emphasizing the functionality of the distance education program used, K expressed her opinion:

We taught courses through Teams. For distance education courses, there is an automation system with opportunities such as homework, program, evaluation, file upload, and course follow-up, and it is very useful, I still use it for material shopping, reports, and assignments. There were no internet or connection problems. It is possible to teach for a long time with many students.

Z, who finds the infrastructure of his university insufficient, said,

Our university did not have any preparations for distance education. We used to shoot videos with our personal computers and cameras, upload them to the YouTube channel we opened, and upload the link to the university's distance education system, allowing our students to access our videos. Online courses were limited. When more than 30 students attended the course, the system was collapsing.

Emphasizing the inadequacy of technical and equipment support, M said,

We had a lot of trouble at first, the program we used did not remove the process, and it took a long time to buy a new one. Afterward, we went through the process in a way that I can say without any problems. We did not have any problems with the internet infrastructure, but we had serious problems with the computers. Computer support with the necessary physical equipment was not provided, we completed the courses with a personal computer. We found our solutions.

In line with the opinions of the instructors, it can be said that the physical and technical infrastructure of education faculties for distance education has limitations. However, faculty members try to eliminate these limitations with their efforts.

3.3. Effects of Distance Education Process on Education Faculties Reaching Their Goals

The third sub-problem of the research is, "What are the opinions of the instructors on the impacts of the distance education process on education faculties reaching their goals?". Instructors evaluated the process of reaching the goals in the context of the factors that supported reaching the goals and the factors that prevented reaching the goals. In Table 4, the themes and sub-themes regarding the views of the instructors on the distance education system reaching their goals are presented.

Theme 1: Elements Go	Supporting Reaching oals	Theme 2: Factors That Prevent Reaching Goals			
Sub-theme 1: Elements Related to Human Capital	Sub-theme 2: Elements Related to the Program	Sub-theme 1: Elements Caused by Management	Sub-theme 2: Elements Arising from Instructors	Sub-theme 3: Elements Originating from the Student	Sub-theme 4: Elements Arising from Physical Structure/Hardware
 Dynamic, qualified technical team (f = 3) Dedicated work of instructors (f = 7) 	 Lectures being theoretical (f = 5) Programs that allow material diversity (f = 3) 	 Policy uncertainty (f = 13) Central management (f = 11) Inadequacies in the follow-up system (behaviors such as taking attendance from the lecturer in monthly reports) (f = 6) 	 Not mastering technology (f = 12) Inability to follow procedures (f = 9) The negativities of managing the process from home (f = 11) Loss of motivation (f = 7) 	 Absenteeism (f = 14) Difficulties in reaching out to resources (f = 8) Failure to perform the assessment and evaluation process reliably (cheating) (f = 13) Inadequate socio- economic conditions (f = 9) 	 Non-functional measurement and evaluation system (f = 7) Not allowing synchronous lessons (f = 4) Problems with the video upload system (f = 4) The limited capacity of the system (having to repeat the same lesson to different groups over and over) (f = 6)

Table 4. State of reaching goals in the distance education process.

As can be seen in Table 4, the instructors consider that the distance education system has reached its goals with the help of the experienced and qualified technical team and the devoted work of the instructors, the theoretical nature of the courses, and the programs that allow material diversity. On the other hand, they evaluated the issues arising from the administration, instructors, students, and physical structure/equipment in the context of the factors that prevent reaching the goals of distance education in their faculties.

Evaluating the factors that prevent reaching the goals within the framework of the factors related to the teacher educator, C said,

Because I was at home and I had a baby, I had difficulty not only focusing on myself but also managing the process. Although there is a caregiver at home, it was challenging to continue the lesson by hearing your child crying from the room while you were teaching inside. Since there was no attendance to the classes, teaching in a non-interactive way was tiring, boring, and not satisfying professionally.

Emphasizing the "student" as one of the factors that hinder reaching the goals, D said,

I don't think it has been achieved much unless the purpose is just to teach... Namely, we held online lessons, and the students could actively participate in the lesson whenever they wanted, but of course, they didn't. Some only attended classes for absenteeism, and they did not listen. The exams were also not reliable. We increased the number of questions and each student had different questions. Measures were taken such as the same question could not be returned, but it was not very sufficient. If I were to evaluate ourselves, we taught our lesson and did our best, but I do not think it is beneficial when there is no face-to-face interaction with the student.

Based on the opinions of the lecturers, it is possible to say that the distance education process negatively affects the process of achieving the aims of the education faculties, and the teacher training process is a process that should be carried out face-to-face.

3.4. Precautions Taken in the Case of Continuation of Distance Education

The fourth sub-problem of the research is, "What are the precautions taken by the instructors in case of the continuation of the distance education process?". Instructors have evaluated the measures they took within the scope of psychological, individual, physical, and technical precautions. The views of the instructors on the precautions they take in the case of continuing distance education are presented in Table 5.

Theme: Precautions	Psychological readiness (f = 6) Documentations being ready (f = 9)
	Adaptation to/getting used to the technical system ($f = 11$)
	Taking measures for the assessment and evaluation process (developing strategies to increase exam reliability) ($f = 9$)
	Developing content that will increase motivation in the online education process ($f = 2$)
	Strengthening of the owned hardware (new computer, camera, etc.) (f = 11)
	Deepening technical knowledge (f = 9)

Table 5. Precautions that will be taken in the case of the continuation of distance education.

Stating that he has lecture notes ready for the next education semester and that he will benefit from these notes in case of resumption of distance education or continuing distance education, teacher educator T said,

At first, we did not have materials ready and notes to conduct distance education courses. While trying to adapt to the system, understand the system, and solve systemic problems, we were also trying to create course materials and shoot videos. But now I feel equipped, I understand the system, my problem-solving skills have improved, and I have enough notes and video recordings related to that lesson. In this process, I have also created a document archive for myself.

They also explained the precautions taken for the continuation of distance education. Expressing her opinion on strengthening their own equipment, instructor B said that, "My computer was incapable of handling the distance education system. I also have had trouble running online classes since I didn't have a camera. I had to go and buy a fully equipped computer."

Teacher educator N, who stated that he was insufficient in technical knowledge, said,

I was not very successful in using technology, did not know most computer programs. I had serious problems in the first weeks with the transition of our university to distance education. I immediately received support from experts to improve and deepen my technical knowledge.

He also explained the measures taken in case of the continuation of distance education.

3.5. Instructors' Views on Teaching Teacher Education through Distance Education

The fifth sub-problem of the research is, "What are the instructors' views on the giving of teacher education via distance education?". While evaluating the teaching of teacher education via distance education, the instructors assessed within the scope of theoretical

Table 6. Opinions on giving teacher education via distance education.			
	Having limited communication with students and the teacher educator/practice teacher $(f = 11)$		
	Having low class participation rate (f = 13)		
Theme 1: Inadequacies/negative	Technical issues (f = 9)		
teachers	Inability to gain live real classroom management experience (f = 14)		
	Lack of observation opportunity (f = 12)		
	Having short class times (f = 9)		
	Distance education platforms not being suitable for teaching practice classes ($f = 7$)		
	Lack of experience in distance teacher education ($f = 13$)		
	Lack of clear and understandable guidelines/policies/practice examples (f = 11)		
Theme 2: Inadequacies/negative	Technical issues (f = 12)		
opinions in terms of the instructors	Not being able to perform assessments and evaluations effectively (f = 11)		
	Inability to have efficient application in crowded classrooms ($f = 5$)		
	Insufficient counseling for prospective teachers (f = 10)		
	Inability to process most of the topics in the program $(f = 7)$		
Theme 3: Inadequacies/negative	Inability to conduct applied courses (f = 11)		
opinions in terms of the program	Unsuitable course content for distance education $(f = 9)$		
	Challenges in acquiring program requirements ($f = 7$)		

courses and applied courses and expressed a negative opinion. The themes created based on the instructors' views are presented in Table 6.

As seen in Table 6, instructors stated that the quality of teacher education was negatively affected due to limited communication in distance teacher education, low participation rates, and lack of technical experience and equipment, and they emphasized that teacher education programs should be conducted face-to-face. X's views on this subject are as follows:

Distance education is not a convenient approach for teacher training. Being a teacher requires using a classroom, organizing a certain amount of people, and initiating and conducting a learning process within an appropriate teaching plan. Even if there is theoretical learning in distance education, I think theory is a small requirement for teaching.

Y, on the other hand, explained her opinions as,

In distance education, we can only convey the subject of area and legislation knowledge to the students. However, this knowledge is not at the application, analysis, or synthesis stage. For this to happen, interaction is necessary. Students need active participation in the lesson; this is not possible in distance education. Apart from that, professional skills and attitudes are not sufficient at all regarding competencies in values. Learning does not only consist of formal learning; students in distance education are deprived of informal learning. S/he learns her/his personal and professional development, communication, and how to approach students through informal learning by observing us, interacting, and supporting formal education. Other than that, we carry out the transfer of information to the application process together by getting feedback from the students; we discuss together possible examples and problems. Unfortunately, this does not happen without student participation.

Instructor L also explained her views stating that the distance education system is unsuitable for teacher training:

In my opinion, distance education is an application that reduces the quality of education. As I said, the absence of attendance prevents the use of many methods such as interaction, questioning, brainstorming, question-answer, and learning through discovery; hence the lesson progresses monotonously. In addition, in this process, students were deprived of all the experiences they would have with children in the classroom as they did the teaching practice remotely.

3.6. Opinions of Instructors Regarding Teaching Practice Courses via Distance Education

The sixth sub-problem of the study is, "What are the instructors' views about the teaching practice courses being conducted via distance education?" They mentioned the positive and negative aspects of the process. The views of the instructors regarding the teaching practice courses through distance education are presented in Table 7.

 Table 7. Instructors' views on teaching practice courses through distance education.

Theme 1: Positive Effects	Theme 2: Negative Effects	
 Increased cooperation with the practice teacher (f = 4) Ensuring that the prospective teachers are evaluated healthily (by the teacher and the instructor) (f = 1) Giving feedback effectively (f = 3) Ensuring the influential use of technology in the education-teaching process of prospective teachers (f = 6) Using new technologies (such as Web 4.0) (f = 2) 	 Deficiencies in classroom management (f = 7) The negative impact of the education-teaching plan process (f = 1) Failure to consider the individual differences of students (f = 6) Inability to gain experience regarding crises that may occur in the face-to-face education environment (f = 9) Poor communication (f = 13) Inability to perform lesson observation properly (f = 14) 	

X, emphasizing the positive effects of the process on "cooperation with the prospective teacher, instructor, and practice teacher", expressed his views as,

Their experience in preparing materials in advance increased, and their cooperation with the teacher increased. The teacher could not stop teaching and could not leave the classroom, the teachers watched and were able to ensure feedback to the prospective teachers. Likewise, the lecturer was able to contribute to the lesson in addition to the feedback from the teacher by regularly connecting to the lesson every week. In normal times, the frequency of the lecturer going to school for monitoring was low, in distance education s/he was able to monitor every student every week. Pre-service teachers sought ways to use digital tools effectively, used some web tools 2, 3, 4, and tried them out.

T, who defined the teaching practice with the metaphor of the "front", expressed his views as,

Teaching practice was a situation where students who received theoretical education faced the realities. It's like a soldier being temporarily deported to the front for war experience. The knees of the students I took to the teaching practice were loosened on the first day. But the next day they would come with great memories. It was like they had only watched a short series during distance education.

On the other hand, X, who emphasized that teaching practice through distance education is equivalent to training imaginary teachers, expressed his opinion as,

We trained imaginary teachers, lessons were conducted remotely due to the conditions, but, certainly, they were not efficient. When the pre-service teacher

does not see the classroom environment, does not communicate with the students, is not supported by the teacher, and does not provide classroom management, he/she only learns to prepare a daily plan/lesson plan.

Instructors stated that the process of conducting teacher education through distance education in general was negative, and they also stated that conducting the teaching practice process through distance education was not effective.

3.7. Opinions of Instructors on the Elements Required for the Success of Distance Teacher Education Programs

The seventh sub-problem of the study is, "What are the views of the instructors regarding the necessary elements for the success of distance teacher education programs?". They touched on topics on the support and needs relating to technical, human, and managerial practices.

Table 8 shows the views of the instructors about the necessary elements for the success of distance teacher education programs. They stated that there are three basic needs to achieve success in distance education and that they can achieve quality teacher education if these supports are provided. By emphasizing the technical needs, instructor X expressed his opinion:

Theme 1: Technical Needs	Theme 2: Human Needs	Theme 3: Administrative Needs (Administrative Support)
 Professional technical infrastructure (f = 13) Technical equipment (f = 9) Collaboration with software engineers (f = 1) 	 Teacher educator with knowledge of information technologies (f = 12) Prospective teacher with knowledge of information technologies (f = 14) Teachers and school administrators who have knowledge of information technologies (f = 6) 	 Administrative support (f = 5) Clear and understandable policies (f = 7) Facilitating applications (f = 2) Guidance (f = 5) Distance education trainings (f = 11) Fixing infrastructure problems (f = 13)

Table 8. Opinions of instructors regarding the elements required for the success of distance teacher education programs.

First, it is necessary to work together with software engineers. Student behaviors and teacher behaviors should be simulated in detail. An online game software should be prepared for each course in line with the course contents in harmony with these behaviors and by considering the appreciation criteria of our students on social media. The lesson should flow in an algorithm determined and directed by the instructor, who is the playmaker. It must be in real-time. Student avatars should be able to communicate with each other.

Instructor L, emphasizing the support of administrators for the success of distance teacher education programs, stated,

It should not be forgotten that the driving force of this process is the administrators, especially the instructors, who have insufficient technical knowledge and experienced a loss of motivation in this process. Instructors who are well-versed in the area, who closely follow the current developments in the area, but who are not accustomed to the distance education system, could not perform sufficiently in the lecture process by looking at the camera, in other words, they could not adapt to the situation. In particular, motivating the instructors in this situation by the administrators and guiding them when they need it are essential elements for the success of the process.

When the views of the instructors on the elements necessary for the success of the distance education process are examined, it is seen that not only the technical support but also the philosophy of distance education is one of the important shortcomings. Even if technical support is provided physically, not mastering the philosophy and procedure of distance education is seen as one of the biggest obstacles to the success of the process.

4. Discussion, Conclusions, and Recommendations

In this research, the findings indicate that teacher education institutions are far from functional; they adopt more formal policies, centralized policies are implemented, distance education is carried out through joint programs in all faculties and colleges in the university, and there is no distance education policy specially prepared and implemented for teacher education over distance education. Moreover, it has been concluded that instead of developing and implementing a distance education policy for themselves in the distance education process, some universities adopt the policies of other universities that successfully implement distance education and implement distance education applications based on the infrastructure of these universities. In the study conducted by Durak and Çankaya [75], it was revealed that academics generally experienced a high level of dissatisfaction with the distance education policies of universities and the distance education system used in the 2019–2020 period. On the other hand, the results of the study conducted by Refae et al. [75] reveal that instructors and students are highly satisfied with the institutional readiness for distance education. Since this difference in the results of the study is related to the distance education implementation status of institutions in different countries, their distance education experiences, and their preparedness for risk situations, it can be considered as a possible situation that there are differences between institutions and countries. Research emphasizes how critical preparedness plans are for the education sector to provide safe and functional education in times of crisis [27]. In this context, it is important that every teacher training institution adopts a systematic, applicable, and understandable distance education policy based on their distance education experiences during the COVID-19 pandemic and implements these policies in possible risk periods. Burns [11] emphasizes that education institutions should develop standards for teaching in an online environment and that online instructors should exhibit qualifications in line with these standards. Similarly, she stated that administrators of distance education programs need professional development and support to be aware of teaching changes and necessary inputs (standards, good teaching, robust design).

Our research results revealed that most of the instructors had difficulties in the distance education system, there was no equipment or physical equipment support, most of the universities did not have any preparation for distance education, and the instructors tried to solve the problems on their own, but they felt very inadequate in this process. It has been seen that teachers and instructors have encountered situations that support our research results during the COVID-19 pandemic in most of the research that has been conducted. Flores and Gago [64] stated that there are some limitations related to technical issues, lack of equipment and hardware, and no internet access. Similarly, the lack of sufficient experience of the instructors has been shown as a significant problem in many studies. Safi, Wenzel, and Spalding [79] stated that some instructors do not have distance learning experience. Casacchia et al. [72] emphasize the effect of the technical, didactic, and psychological difficulties of distance education. Similarly, many studies [28,45,51,74,76,77] have shown that limited interaction, infrastructure problems and lack of equipment, and limited access to digital learning materials are crucial factors that negatively affect the distance education process. Yıldız [78] stated in his study that the instructors did not find distance education useful due to the lack of interaction and communication compared to face-to-face environments, and they defined distance education as an inefficient and problematic system. In the study conducted by Seren et al. [62], instructors also mentioned

the disadvantages of distance education for the points of the teaching-learning process, communication, and measurement-evaluation. Gürer, Tekinarslan, and Yavuzalp [83] stated that since distance education is a new process for related universities and instructors, it is likely that instructors will encounter various problems. In the study of Ozok and Kancınar [30], it was emphasized that the instructors experienced technological infrastructure problems during the distance education process and that the problems that occurred caused the efficiency of the lesson to decrease. During the teacher education process, prospective teachers try to gain the knowledge, skills, and values necessary for the teaching profession by preparing them to become professional practitioners [93]. However, during the COVID-19 pandemic, the unpreparedness of instructors, prospective teachers, and faculty administrations due to the unplanned nature of the sudden transition to the distance education system has seriously reduced the quality of teacher education. As a result of the COVID-19 pandemic, the transition from traditional classrooms to emergency distance learning has created intense complexity for all students and teachers [82]. The most important responsibility of the teacher to increase the success of online learning is to integrate content, technology, and pedagogy [94]. The ability of teachers and instructors to harmoniously present technology, pedagogy, and content in online teaching depends on having particular skills and technical support [95,96]. In this context, strengthening and improving the physical and technical infrastructure of universities and teacher training faculties in the sense of distance education will have a great effect on improving the quality of distance teacher education.

According to the instructors' views in this research, the elements that enable the distance education process to reach its goals and support its success in teacher education are the elements related to human capital and the program. Instructors stated that distance education's aims could be achieved with a dynamic and qualified technical team and the devoted work of instructors. In addition, courses being theoretical and the programs that allow material diversity have an important function in the realization of the purposes of distance education. On the other hand, the central government policies implemented by the faculty administrations, policy uncertainty, inability to master the technology, managing the process from home, loss of motivation, student absenteeism, lack of ability to make the measurement and evaluation system reliable, and limited capacity of the distance education software are the factors shown as to prevent the achievement of the goals of distance education in teacher education. Ibicioğlu and Antalyalı [97] stated that the possibility of using computers, motivation, and perception of distance education have primary importance in success in distance education. Bekele [44] evaluated the factors affecting success in distance education in five main categories: human factor, course factor, leadership factor, pedagogic factor, and technological factor. Individuals' ICT competencies, motivations, attitudes and experiences, quality content, technical competence, professional support, and user-friendly technical tools were presented under the factors affecting distance education's success. These views of Bekele [44] support this finding of our study.

In the research, within the scope of the measures taken by most of the instructors for the continuation of distance education, they stated that they strengthened their computer/technical equipment, etc., tried to improve their technical knowledge such as digital literacy, developed content for online education, and took measures to increase exam security. Simamora et al. [63] stated that infrastructure facilities need to be further developed and improved to support online learning in the future. The key to remote teacher preparation is to have instructors at the university who can use it properly [17]. However, the sudden transition period from usual education to distance education has created an urgency for the development of digital skills of instructors and their professionalization in terms of digitalization. The lack of pedagogical and technical strategies needed by the instructors in the emerging distance education environment has hindered the functional realization of distance education. The fact that the instructors do not know how to adapt the teaching practices and pedagogical techniques used in traditional education to distance education programs

to successfully develop students' knowledge and skills in certain disciplines, distance educators need rigorous professional development in the distance education method they will teach [11]. In this context, it is necessary to increase the knowledge and skills of the instructors regarding distance education, and to provide the necessary technical equipment and support, considering the possibilities of emergency distance education due to possible risks in the future.

In this study, instructors stated that distance education applications are not suitable for teacher education. The limited communication of the prospective teachers with the instructors and the practice teacher, the low rate of participation in the course, technical problems, the short duration of the lesson, the unsuitability of distance education platforms for teaching practice courses, and the prospective teachers' inability to experience real classroom management and lack of opportunity to observe were presented as the biggest reasons for not being suitable for the teacher education process. Moreover, the lack of experience of the instructors in distance teacher education, the lack of clear and understandable distance teacher education directives/policies and practice examples of the faculties, and the inability to provide effective counseling to prospective teachers in the distance education process are among the negative opinions of the instructors about distance teacher education. In addition, the instructors emphasized that applied courses cannot be conducted through distance teacher education and the course contents are not suitable for distance education. The results of the research conducted by Kırbaş [77] also revealed that the instructors thought that giving theoretical and applied courses through distance education would not be appropriate. Similarly, Perraton [20] stated that teacher education should be based on classroom practices and emphasized that distance education is an inappropriate method for teacher education. It is important to recognize that distance education cannot replace face-to-face learning but can supplement existing classroombased education models [29]. Teacher education is an important phase where theory and practice are combined to provide opportunities for prospective teachers to expand their learning [93]. In this context, it is important to develop teaching programs and software that will support prospective teachers' active participation in applied courses in the distance education process.

In our study, the instructors stated that the teaching practice via distance education has some positive and negative effects. The positive effects of conducting teaching practice courses with distance education were stated to increase the cooperation of the prospective teacher with the practice teacher, to ensure their effective use of technology in the education and training process, and to use new technologies. On the other hand, the fact that prospective teachers cannot gain sufficient knowledge and experience in classroom management through distance education, are unable to gain experience regarding crises that can be experienced in the face-to-face education environment, have poor communication, and fail to perform lecture observation successfully have been shown among the negative effects of distance education. Similar to the findings of our study, Can [51] states that the teaching practices carried out via distance education during the COVID-19 pandemic are not sufficient, and there are problems in teaching practice, such as participation in the course, infrastructure, technical equipment, learning environment, and internship practice. The study conducted by Seren et al. [62] concluded that distance education is unsuitable for the structure and functioning of applied courses, and the applied courses had to be taught more like theoretical courses in this process, according to the instructors' views. In addition, it has been highlighted by the instructors that distance education is disadvantageous regarding points such as crowded classrooms, limited students' technological equipment and internet access, taking time to plan lessons, low student readiness, not allowing students to work cooperatively, minimizing student-student interaction and student-instructor interaction, not having effective communication, mechanization of teaching, and lack of reliability in online exams. One of the biggest challenges in teacher education in the distance education process is related to internships. Prospective teachers had to abruptly cancel their school visits and monitor the activities of their collaborating teachers online

during the distance education process [64]. This situation prevented prospective teachers from having an effective teaching experience. With the need to replace teaching practices online, instructors had to rapidly redesign and re-imagine the traditional teacher training process [70]. Prospective teachers learn to put theory into practice through teaching practice courses and acquire more comprehensive information about teaching such as classroom management [81]. In addition, prospective teachers' professional knowledge and skills, attitudes, and self-esteem are developed and strengthened [80]. In this process, prospective teachers find the opportunity to develop reflective thinking by collaborating with their peers and teachers [98]. Since in distance education, the interaction of students with each other and with teachers is minimal, it does not develop communication or teamwork skills [5]. For this reason, it is advised to supply infrastructure, access to technical support, organization of teaching and learning environments, and student participation for teaching practice to be successful in pandemic conditions [20].

In the research, it has been revealed that instructors need support in technical, human, and managerial issues to be successful in teacher education in distance education. Instructors need professional technical infrastructure. In addition, the provision of technical equipment and cooperation with software engineers are also included in the list of technical needs. It has been concluded that with the aim of distance teacher education programs to be successful, instructors, prospective teachers, and teachers should have knowledge of information technologies. In addition, it was concluded that clear and understandable policies should be developed, training on distance education should be given, and infrastructure problems should be resolved.

As a result, according to the opinions of the instructor, it can be stated that the distance education process policies of teacher education institutions in Turkey are structured to ensure that work is not disrupted rather than prioritizing quality. It is thought that the inadequacies in the process of supporting the instructors towards distance education also arise due to these policies. The absence of a distance education policy specifically prepared for teacher education will negatively affect the teacher education process to be carried out through distance education. This situation will have a negative impact on the academic skills that teacher candidates should acquire, the skills of the assessment-evaluation process, and the skills of the classroom management process. Therefore, functional, purposeful, and comprehensible distance education policies regarding distance teacher education in universities should be determined. Universities' distance education infrastructures should be developed in such a way that they can successfully implement teaching practices. One of the positive aspects of the emergency distance education process is that the instructors, in the case of continuing teacher education through distance education, have improved themselves in many areas, especially technical knowledge and skills, preparation of educational materials, and competencies in the measurement-evaluation process. If teacher education continues through distance education, it seems necessary to take some measures in terms of teacher candidates, instructors, and program dimensions in order to ensure sustainability. The technical equipment and infrastructure required by the instructors to be able to conduct the courses efficiently in distance education should be provided. If the teaching practice course is continued to be given through distance education, it is considered important to guide and gain competence in subjects such as classroom management in distance education and taking into account the individual differences of students.

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Appendix A. Effects of Emergency Distance Education on Teacher Training Process Questionnaire

Dear colleague,

This questionnaire was prepared to investigate the effect of distance education carried out during the pandemic period on teaching practices. The questionnaire consists of two main parts that aim to determine personal information, the views of the instructors on the distance education practices carried out in their institutions and the views on the effects of distance education on the teaching practice. It is important for the quality of the study that you do not leave the questions unanswered.

Thank you for your participation in the study and your valuable comments.

Part 1. Personal information:

- 1. Gender:....
- 2. Age:
- 3. Professional experience (as a year):....
- 4. Did you have any previous distance education experience? Yes:..... No:.....
- 5. Have you received any training on distance education? If yes, what is the scope and content of the training:

Part 2. The questions about views on distance education

- 1. Could you tell us about the distance education policies of your university and faculty?
- 2. Could you evaluate the physical and technical infrastructure of your university and faculty within the scope of distance education activities? (Probe interview questions: a. What kind of equipment and facilities do you have? b. What are your shortcomings?)
- 3. Could you evaluate the distance education process you carried out in your faculty during the pandemic period in terms of reaching the goals? (Probe interview questions: Do you think you are successful? What were the factors that made you successful?)
- 4. Are there any precautions you take now in case of a new pandemic? (Probe interview questions: a. What kind of preparations/precautions did you take? b. What pedagogical strategies have you developed?)
- 5. What do you think about the realization of teacher education through distance education?
- 6. Could you evaluate the courses in the teaching program in terms of suitability for distance education?
- 7. Could you evaluate the distance education process in terms of gaining the general competencies of the teaching profession?
- 8. What are your views on the conduct of teaching practice courses through distance education? (Probe interview questions: a. What are your views on the practices that support the process? b. What are your views on the factors that negatively affect the process?)
- 9. What do you think are the main elements necessary for distance teacher training programs to be successful?

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